NONVERBAL BEHAVIOR OF FIRST GRADE TEACHERS IN DIFFERENT SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

By

GENE L. DAVIS

Bachelor of Arts
College of Emporia
Emporia, Kansas
1965

Master of Science
Kansas State Teachers College
Emporia, Kansas
1969

Specialist in Education
Kansas State Teachers College
Emporia, Kansas
1970

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
May, 1973

NONVERBAL BEHAVIOR OF FIRST GRADE TEACHERS

IN DIFFERENT SOCIO-ECONOMIC LEVEL

ELEMENTARY SCHOOLS

Thesis Approved:

Russell D. Gibson
Thesis Adviser

Bill J. Elsom

Terence J. Mills

Larry M. Perkins

N. Durham
Dean of the Graduate College

ACKNOWLEDGMENTS

A very sincere expression of appreciation is extended to the many people who contributed to this study. The writer is especially indebted to his major adviser, Dr. Russell L. Dobson, who provided leadership, kindness, personal concern, and inspiration throughout the completion of the Doctoral Program. To Dr. Larry Perkins, Dr. Terence J. Mills, and Dr. Bill Elsom, appreciation is also expressed for their encouragement and helpful suggestions.

A note of appreciation is also expressed to the administrators and teachers who permitted the observers to make the observations needed for this study.

To the writer's wife, Trudi, goes a special note of appreciation for her help, encouragement, and understanding extended throughout the completion of this study.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Man has two forms of communication. He can communicate verbally and nonverbally. Scores of books have been written about verbal communication and its importance to man. However, only until recent years have publications been coming forth recognizing the importance of nonverbal communication to man. Gibb (1960) suggests that man communicates by facial expressions, gestures, postures, and choice of words.

In everyday situations, there are ways that people communicate without speaking verbally. The businessman dresses in a specific manner, acts in a certain manner, and talks in a tone of voice that will convince the prospective consumer that his merchandise is of the finest quality. Goffman (1959) suggests that we may use a personal front. Within the realm of this personal front, there may be rank, clothing, sex, posture, speech patterns, facial expressions, and bodily gestures.

The teacher in the classroom will convey some nonverbal messages to the students. The message may come from the teacher's smile, dress, posture, and gestures. The rapport between the teacher and students may hinge upon this factor of nonverbal communication.

Bernstein (1961) conducted research that indicated that students who come from low socio-economic levels must rely upon the nonverbal

communication of their teacher because they lack the verbal facilities that are necessary to completely understand what the teacher is saying. This is also true of middle and high socio-economic level students because there are occasions when the verbal message is not completely clear.

Watzlawick, Beavin, and Jackson (1967) suggest that in certain situations nonverbal communication is more effective than verbal communication. They cite examples concerning love and combat.

Without question, nonverbal communication is taking place in everyday living. In the classroom, nonverbal communication is taking place between the teacher and students.

Improvement is being made in discovering the importance of nonverbal communication, but there is still a need for continued study and research.

Rationale

This research study is an attempt to determine the relationship, if any, between the quantity and quality of nonverbal behavior of first grade teachers and the socio-economic level of the students they are teaching.

In the past, only verbal forms of communication were considered to be valid and a sufficient number of books have been written concerning this topic. However, literature has recently been coming forth implying that this has been in error. In other words, man has two forms of communication, the verbal and the nonverbal. Presently, nonverbal communication is getting some of the attention it rightfully deserves. Brooks (1971) suggests that nonverbal forms of communication

are much more meaningful than the verbal forms. He estimates that in face-to-face confrontation the nonverbal cues carry sixty-five per cent of the true meaning and that only thirty-five per cent of the meaning is carried by the verbal sounds.

In the classroom setting, Galloway (1966) suggests that nonverbal forms of communication are extremely important. This, he suggests, is especially true when the children are from disadvantaged homes. The children will be confronted with a teacher from the middle class who will use the verbal forms of communication that represent her middle class values. Therefore, these disadvantaged children are not able to understand many of the verbal messages and must rely on the nonverbal behaviors if they are going to be successful.

This can be further substantiated by research conducted by Bernstein (1961) when he found that children from low socio-economic levels do not possess the verbal facilities to compete in the academically oriented classroom and they do not understand the culturally different teachers. Therefore, they must rely on the nonverbal behavior of the teacher in order to have some degree of academic success.

Research indicates that when true feelings are involved, nonverbal behavior is the type of communication that has the lasting meaning. It indicates that students from low socio-economic levels must rely on the nonverbal messages from the teacher because of lack of verbal facilities.

The question remains as to whether or not the type of nonverbal behavior that is transmitted from the teacher to the students is of a nature that will aid the students in learning. Therefore, it seems vital that educators who are concerned about the communicative process must consider not only the verbal message, but the nonverbal as well.

A study to determine the quantity and quality of nonverbal messages used by teachers teaching students from different socio-economic backgrounds is worthy of analysis.

Statement of the Problem

The central problem of this study is to determine whether teachers working in low socio-economic level elementary schools and teachers working in middle socio-economic level elementary schools differ in the quantity and quality of nonverbal behavior exhibited. The questions involved in this study were:

1) Do first grade teachers who are teaching low socio-economic level students differ in the quantity of nonverbal behavior from those who are teaching students from the middle socio-economic level?
2) Do first grade teachers who are teaching low socio-economic level students differ in the quality of nonverbal behavior from those who are teaching students from the middle socio-economic level?

Basic Hypotheses

This study proposes to establish a basis for the testing of the following null hypotheses:

1) There is no significant relationship between the quantity of nonverbal behavior used by first grade teachers and the socio-economic level of the student they are teaching.
2) There is no significant relationship between the quality of nonverbal behavior used by first grade

teachers and the socio-economic level of the student they are teaching.

Definition of Terms

For the purposes of this study the following definitions were used:

Low socio-economic level students. Students who attend schools receiving Title I funds.

Low socio-economic level elementary schools. Schools receiving financial assistance from the federal government through the Title I program.

Middle socio-economic level students. Students who attend schools not eligible to receive Title I funds.

Middle socio-economic level elementary schools. Schools not eligible to receive financial assistance from the federal government through the Title I program.

Nonverbal behavior. Transmitting a thought or feeling from one person to another through gesture, posture, facial expression, tone and quality of voice, or physical contact as an auxiliary function to speech or without speech.

Quality nonverbal behavior. Teacher nonverbal behavior that is classified as either encouraging or restricting.

Encouraging nonverbal behavior. Galloway has defined encouraging nonverbal behavior as exhibiting enthusiastic support, helping, or being receptive.

Restricting nonverbal behavior. Galloway has defined restricting

nonverbal behavior as being inattentive, unresponsive, or showing strong disapproval.

Major Assumptions

For purposes of this study the following assumptions have been applied:

1) Inasmuch as nonverbal behavior is the first type of communicative form that is expressed, all teachers exhibit this type of communication in the classroom.
2) The Galloway Analysis of Nonverbal Communication provides a method of classifying the nonverbal behavior of a teacher in the classroom.
3) The use of trained observers in the classroom did not appreciably alter the verbal and nonverbal interaction between students and teacher.
4) The teachers selected to participate in this study have similar educational backgrounds with no specific training in nonverbal communication.
5) The nonverbal behavior of the teacher in the classroom is the most genuine form of communication.

Limitations of the Study

For purposes of this study the following limitations have been applied:

1) The use of video tapes to record the nonverbal behavior of the teacher in the classroom was originally designed in this study. However, when administrators and teachers were

contacted about this procedure, there was a high degree of reluctance. Therefore, the only other alternative was to use trained observers in the classroom to collect the data.

2) The selection of elementary schools in which to make the observations was limited to those who were willing to participate in this study.

3) Only first grade teachers were selected to participate in this study and generalizations may be made only to those teachers.

4) Analysis of the first grade teacher's nonverbal behavior was limited to the categories established on the Galloway Analysis of Nonverbal Communication.

5) The elementary schools selected to participate in this study were rural or semi-rural.

6) Not all of the students who attend Title I elementary schools can be classified as low socio-economic level students.

Procedures and Analysis of Data

1) For the purposes of this study teachers teaching in Oklahoma were used (Ada, Blackwell, Pawnee, Newkirk, and Stillwater).

2) Twenty first grade teachers were selected for the purposes of this study. Nine were selected from elementary schools that were not eligible for Title I funds. Eleven were selected from elementary schools receiving Title I funds.

3) Observations were made of each first grade teacher while in the process of teaching either reading or mathematics.

4) Observation periods of twelve minutes each were made of each

teacher. Each teacher was observed two times. There was a total of forty observations.

5) No observations were made preceding holidays, special events, or any other activities that were not a part of daily activities.

6) Observers entered the classroom a few minutes prior to beginning their observations in order to allow the teacher and students to adjust to their presence.

7) After the observations were made they were collected and made ready for statistical evaluation.

Four students at Oklahoma State University were selected to begin training for this study. These students met at the Southwest Center for Safety and used the Center's media equipment. At the Center these students memorized the categories on the Galloway Analysis of Nonverbal Communication and learned tabulation procedures. The students spent time observing films that illustrated teachers at work in the classroom and watched role playing situations. During this, the students made tabulations of the nonverbal behaviors of the teachers and the person doing the role playing on tally sheets that listed each category. Beside each category space was provided for tallying observations. The observations were recorded whenever a change in nonverbal behavior occurred. The two students that had the highest reliability were selected to visit the classrooms and make the observations for this study. Their reliability was checked by the use of Scott's Coefficient (Flanders, 1966).

Data Analysis

The Galloway Analysis of Nonverbal Communication was scored by tabulating the teacher's nonverbal behaviors as categorized by two trained observers. The data was collected and made ready for statistical treatment.

There was one statistical treatment that was employed to test both of the hypotheses. The treatment used was called a point-biserial correlation (Guilford, 1965, p. 322). The point-biserial correlation formula is:

$$r_{pbi} = \frac{M_p - M_q}{O_t} \sqrt{pq} \quad .$$

The level of confidence for testing both hypotheses was set at the .05 level of significance.

Format for Succeeding Chapters

Five chapters will suffice to fulfill the requirements of this study. Following Chapter I, which is the introduction, Chapter II is devoted to a review of related research and literature. Chapter III presents a discussion of the instrumentation of the study. Chapter IV presents statistical treatment of the data. Finally, Chapter V summarizes the entire study, presents findings of the study, gives conclusions drawn from the findings, makes recommendations in keeping with these conclusions, and suggests areas for further research.

CHAPTER II

REVIEW OF SELECTED RESEARCH AND LITERATURE

Nonverbal Communication

On the American education scene there has developed, in years past, a concern about the interaction process between students and teachers. There has been considerable material written about verbal interaction. However, in recent years, literature has been coming forth that contends another form of communication has been with us since man's earliest beginnings and it has not received its due recognition. This phenomena is called the silent language, or nonverbal communication. Research indicates that this phenomena reveals the true inner feelings of man more readily than the verbal message. Questions remain about nonverbal communication and its effect on man; however, one question that is of vital concern to the educative process is whether the types of nonverbal behavior exhibited by teachers is contributing toward a healthy interaction process between students and teachers.

This chapter includes a review of selected research and literature pertaining to the topic of nonverbal communication and its importance.

Charles Darwin (1856) was one of the first people to become interested in nonverbal forms of communication. His earliest studies dealt with the emotions of animals. He concluded that animals must depend on their emotions if they are going to survive. This was

especially apparent in situations in which the animal was threatened. Later, he turned his attention to studying the emotions of man. After years of continued study, he concluded that the expressions of man were universal. In other words, a smile in one part of the world would have the same meaning as a smile in a different geographical location. Later, this assumption was to be disproved by anthropologists and sociologists. From the work done previously with animals, he concluded that nonverbal behavior was the oldest form of communication.

Duchenne (1867) made explorations into the study of facial muscles and their response to electrical stimulation. He made another major contribution concerning the movements of the entire muscular system. His work later earned him the title of Father of Modern Kinesiology.

Allport (1933) conducted a very comprehensive study dealing with nonverbal behavior. In this study, he established categories that evolved around expressive movements; standing, walking, and related activities; sitting and resting; and communicating and handwriting. From these main categories, he developed three hundred subcategories. His main objective was to see if the personality traits of an individual could be predicted from his nonverbal behavior. His conclusions revealed that these two were somewhat related and were extremely complicated. His study further revealed that there was a relationship between expressive movement and the inner feelings of a person.

Galloway (1971), in his writing, agrees with the earlier pioneers who studied nonverbal forms of communication. He agrees that it is the oldest form of communication and that it does reflect the inner feelings of man. He writes:

> The nonverbal is indeed the language of sensitivity. It is the age-old language of lovers, the sublime communication

> without words. It is a language of content, a knowing smile, an exchanged glance that tell more-much, much, more than words can ever say. It is the frown that makes one feel guilty; the silent anger that emits a tenseness so real that it can almost be touched. It is that obscure, yet emphatic meaning behind the silence that thunders its message. The nonverbal is so complicated that it can convey entire attitudes, yet so simple that when a head nods or shakes everyone understands. All human relationships involve meanings that are more than words, and the nonverbal exposes the truth in these relationships.

People seem to think that only bodily gestures are contained in the realm of nonverbal communication. Ruesch and Kees (1956) believe that there is much more. The world of trade is full of nonverbal communication. The storekeeper must arrange his showcase so that it will be appealing to the prospective consumer. The material, shape, and surface on which the merchandise is placed will affect its salability. In larger cities, there are certain areas, such as an industrial area, a commercial site, etc., that tell what their function to that city is. Ruesch and Kees suggest that the nonverbal realm can fall into one of these three categories:

A. Sign Language-includes those forms of codification in which words, numbers, and punctuations signs have been subplanted by gestures; these vary from the "monosyllabic" gesture of the hitchhiker to such complete systems as the language of the deaf.

B. Action Language-embraces all movements that are not used exclusively as signals. Such acts as walking and drinking, for example, have a dual function; on one hand they serve personal needs, and on the other they constitute statements to those who may perceive them.

C. Object Language-comprises all intentional and non-intentional display of material things, such as implements, machines, art objects, architectural structures, and - last but not least - the human body and whatever clothes or covers it. The embodiment of letters as they occur in books and on signs have a material substance, and this aspect of words has to be considered as object language.

Man has, most of the time, fallen into the trap of believing that verbal communication is the only form of communication. This is in error, for the nonverbal realm of communication can, and does, speak louder than words. The importance of nonverbal communication is seen in all aspects of life. Currently, this type of behavior is receiving more interest as witnessed by the studies done and opinions being stated.

Halpin (1966) suggests that if executive training programs are going to be more successful, they must give considerable thought and study to the area of nonverbal communication.

In everyday situations, Brooks (1971) believes that verbal interactions carry only a small part of communication, and that the nonverbal behavior is the action that is the most commonly accepted. He estimates that in face-to-face communication, no more than thirty-five per cent of the meaning is carried by the verbal message. In other words, at least sixty-five per cent of the meaning is carried by the nonverbal message.

Lehner and Kube (1964) give support to the beliefs of Brooks about the importance of nonverbal communication. They believe that a frown, a show of anger, a shrug of resignation, or a bowed head conveys more meaning than words could possibly say.

In a study conducted measuring verbal and vocal language and combining these with facial expressions, Mehrabian (1968) found that of the total messages sent, fifty-five per cent were facial, thirty-eight per cent were vocal, and seven per cent were verbal. In another study he conducted (1969), it was found that the arms are placed in the akimbo position with a greater degree of frequency when the person

is involved in interaction with a person he has a great dislike for. It was also concluded by the participants in the study, that when a person leans backward, there is a negative nonverbal behavior exhibited and when the person leans forward during the interaction, the attitude conveyed is perceived as being positive.

The posture of an individual and his body positioning can tell in a moment what is taking place in a specific interaction (Scheflen, 1964). A study similar to the above was undertaken by Birdwhistell (1952) except that he was interested in the effects of voice pitch. He concluded that a high pitch was suggesting a question, while a low pitch was suggesting termination. A pitch that fell in between was considered to be suggesting continuance.

Weaver and Strausbaugh (1964) give an account of a study conducted by Tugiuri, Blake, and Brunner. This study was designed to analyze the importance of nonverbal communication in an interaction process. There were three discussion groups of professional people who were to interact with each other through twelve two-hour sessions. At the end of the discussion period, each person was asked which other person he believed liked him the most. After much discussion about the verbal and nonverbal cues, it was concluded that the choice each person made was not based so much on the verbal cues, but on the nonverbal cues that the person exhibited.

In the school setting, interactions are taking place between teacher and students. These interactions are not solely verbal but are based on a combination of verbal and nonverbal cues. The combination of these two communicative forms plays a major role in determining the success of a child's school experience.

However, only in recent years have the nonverbal forms of communication been given any degree of thought. Teachers cannot afford to understand only the verbal forms of the communicative process. There are times when the teacher will convey important nonverbal messages and he needs to be aware of the type of information which is sent.

Davidson and Lang (1960) believe that many teachers are not aware of what or how they communicate to their students. By not realizing this, they are placing the student in the uncomfortable position of not knowing for sure what the teacher's communicative form means. In order to prevent this situation, teachers must take the time to analyze the total interaction situation.

If teachers are to be effective in their classrooms, they must consider both the verbal and the nonverbal realms of communication. For teachers must not only be concerned with what they are saying, but they must be concerned with how they are saying it. The nonverbal behavior of the teacher reflects the teacher's true feelings and the students are very much aware of this (Lail, 1968).

Galloway (1970) stresses the point that nonverbal forms of communication can make a difference in the classroom. The behavior that is emitted nonverbally by the teacher can provide cues for the student that will help him with learning. He states:

> The effects of nonverbal influences in the classroom life are beginning to receive widespread attention. Until now, these effects and influences have seldom been recognized in specific ways. Improving the act of teaching in a classroom implies the need to study nonverbal cues and events, for many classroom phenomena serve as communicators of information. As the teacher works to establish better classroom learning, it is important to realize that nonverbal meanings make lasting impressions. Especially is this true when a contradiction exists between words and actions. The behaviors and events of classroom activity have verbal and

> nonverbal elements. When an incongruity occurs, it is the nonverbal effects that are accepted as valid. Nonverbal communication does make a difference in student learnings in classrooms.

The idea that a student can determine a teacher's acceptance of him by the bodily position, facial expression, and gestures used by the teacher is suggested by Strang (1965).

Ruesch and Kees (1956) believe that nonverbal cues serve as qualifiers to the verbal message. A student may say that he is working diligently on a task during a particular class. Undoubtedly, he will use the nonverbal communicative form that is congruent with the verbal in order to make the teacher believe him. In other words, the student believes that his nonverbal behavior is the most convincing to the teacher.

There are many nonverbal behaviors that are commonly expressed in the classroom which carry very important messages. Koch (1971) compiled a list of these which include: gestures, those of the foot, body, head, and face; posture, whether a person is standing or sitting denotes weariness or alertness; skin, changes such as pallor, perspiration, redness, and blushing; proximity, generally we avoid something which we fear; tactility, when desired by the student can be very powerful; voice, includes tone, intonation, volume, pitch, and quivering; breathing, it can reflect such nonverbal behavior as excitement; and the eyes, which he claims to be the most powerful nonverbal cue.

In studies conducted by Bakan (1971), it was found that by carefully observing the eyes of another person, information can be obtained concerning the individual's daydreaming activities, emotional feelings, and, to some degree, his thought processes.

Gibson and Pick (1963) report that when two persons are involved in direct eye contact, these two people are the only ones that share communication. They suggest that this behavior is very personalized and that the teacher should use this form of nonverbal communication if they want to personalize their contact with each student.

Ruesch (1956) says, however, that a person should not accept the belief that eye contact means the same to every student. The teacher should be aware of this and use eye contact with the student only when he considers it helpful to the student.

The use of eye contact in the classroom can serve as a mode of behavior for use in interpersonal communication, individualized group instruction, classroom management, motivation, and for increasing awareness (Hodge, 1971).

Another study done by Exline and Winters (1965) found that a relationship existed between the frequency of eye contact and positive and negative attitudes between communicators. In an additional study by Exline, Gray, and Schuette (1965) it was concluded that in an evaluative situation, if the evaluator was being positive, eye contact was more frequently used by the person being evaluated than when the evaluator was being negative in his evaluation.

The physical movements of a teacher in the classroom is another area of nonverbal behavior that is important. Miller (1961) conducted a study dealing with the movements of elementary school teachers in the classroom. The variable for this particular study was the concept of space. His results concluded that a teacher who was insecure and anxious tended to establish territorial rights around his desk because the desk represented authority. The opposite was found to be true of

the secure teachers. He used all parts of the classroom in his teaching and seemed anxious to intermingle with the students.

Teachers and students who cross cultural lines may be handicapped by not understanding the verbal and nonverbal messages that are inherent in the unfamiliar culture. Birdwhistell (1970) believed that Darwin's original assumption about a smile meaning the same thing, regardless of the geographical location, was in error. He conducted a research study that bears witness to his beliefs. His study concluded that a smile exhibited by a female to a stranger in the southern state of Georgia would not have the same meaning as it would have in the northern state of New York. In Georgia, for a female to smile at strangers was considered to be appropriate, while in New York, it was considered to be highly inappropriate. In one part of the country, a person smiling might be asked "what's funny," while in another part, it would be considered the acceptable social grace.

There are other cultural differences within this country. Children who are from suburban areas maintain eye contact while the teacher is talking or reading a story. However, Indian children who come from tribes in the Southwest lower their heads when being spoken to by an elder. It would be a terrible mistake for a teacher to demand eye contact from an Indian boy. This boy is showing respect and deference. The teacher, in order to be an effective communicator, must realize that there are cultural differences with respect to the nonverbal behaviors exhibited.

Michael and Willis (1969) conducted a research study concerned with the physical gestures of different cultures. They investigated three different groups of children who had been exposed to either one

or two different cultures. The two cultures involved were American and German. In the first group, there were children of American Army personnel living on an army post in Germany. The second group was composed of children of American Army personnel living in a German community. The last group of children was composed of German children living in a German community. The results of this study concluded that the German children did less gesturing than their American counterparts and that each group could accurately identify each others gestures.

Understanding the culture of an individual is vital when one is desiring to understand the meaning of the nonverbal behaviors used. This is because nonverbal behaviors are influenced by the culture in which one lives. Within each culture, there are nonverbal behaviors exhibited that are considered to be either acceptable or unacceptable. An example of this is the difficulty members of an aristocratic family would have in understanding the nonverbal behavior of members of the cockney culture. They would more readily understand the nonverbal behaviors of the German aristocracy (Galloway, 1970).

The relevance of these findings is that in the American school system there are children who have a different cultural background than that of the teacher. This can place the child in a situation where he is not familiar with either the verbal messages or the nonverbal messages sent. However, research indicates that when this happens, the child will take most of the meaning from the nonverbal cues he can interpret.

There are many reasons why the culturally different child has to rely on the nonverbal behavior of the teacher. One of these reasons is

the child's lack of verbal facilities. Millard Black (1966) conducted a study showing that disadvantaged children have difficulty with language in the school environment. His conclusions were as follows: deprived children can understand more language than they use; many of the words used by deprived children are not representative of the school culture; many of these children are severely handicapped in language development; these children use simple sentence structure more often than compound or complex sentences; and they are somewhat symbolically deprived.

Taba and Elkins (1966) imply that children who come from disadvantaged homes are lacking in articulation, vocabulary development, and have faulty grammar. They further suggest that low socio-economic level homes have limited educational tradition and that children from these homes have problems with the cause-and-effect relationships.

Duetsch (1963) visited the homes of many deprived children to see the type of conditions in which these children lived. In these homes, he found very few objects that would help increase cognitive, perceptual, or verbal development.

Bernstein (1961) found that children from low socio-economic levels do not possess the verbal facilities necessary to compete successfully in the academically oriented classroom and that many of the children do not understand the culturally different teachers. Therefore, they have no alternative but to rely on the nonverbal behavior of the teacher in order to have some degree of success. He also found that these children are basically concerned with the "Now" and not time, relationships, sequencing of events, or theoretical concepts.

There are other reasons as to why the disadvantaged youngster must rely on the nonverbal behavior of the teacher in order to have some degree of academic success. Not only do they lack verbal facilities, but they are not oriented toward the educative process.

Riessman (1962) says that many deprived children have characteristics that reflect the culture in which they live. Many of these characteristics are quite different from the characteristics of the middle class. The characteristics that Riessman considers basic are:

A. The child is relatively slow at cognitive tasks, but not stupid.
B. The child learns more quickly through the physical approach especially when the content is meaningful and valued by the learner.
C. The child seems to be more pragmatical than theoretical.
D. The learner may be superstitious and somewhat religious in the traditional sense.
E. Many intellectual activities are viewed as unmasculine.
F. The child is inflexible and not open to reason about many of his beliefs.

One can readily see that many of these characteristics do not relate to the traditional middle class school. Therefore, it often happens that when the deprived child enters school, it is almost a complete change in environment and culture. To insist in the reasoning, however, that a deprived child turns to the nonverbal only when he doesn't understand the verbal message is faulty reasoning. He may, in fact, rely on the nonverbal cues to a greater degree than one might expect.

Heald (1964) wrote an article on the values of the middle class. In this writing, he says that the middle class values education as a potential for solving social problems, education as a preparation period for adulthood, initiative, self-reliance, thrift, and good

manners. According to Heald, many of these values are different than the values of the low socio-economic level people.

Mills (1951) reinforces the beliefs of Heald concerning the values system of the middle class. He contends that this class of people have a high respect for education, thrift, belief in the church, hard work, and honesty.

The assumption that it is only the deprived youngster who uses nonverbal cues to understand meaning is in error. If a conflict develops between the verbal and the nonverbal message, other students, who may well be able to understand the verbal message, will instead go by the nonverbal message (Victoria, 1970).

The student, if middle class, will have more cultural advantages than the low socio-economic level student. The chances are that the middle class student will have in his home more toys and objects that will help with perceptual, intellectual, and cognitive development. These advantages are a tremendous help in working in the school environment.

Generally speaking, the teacher will believe in the values of the middle class and will have gone through an educative process that places great importance on these values. Lastly, most of the teachers in our school systems have come from middle class homes and carry these values with them into the classroom.

The question of reliability involving nonverbal behavior was a concern in the 1920's. In 1924, Allport attempted a study to see if nonverbal behavior could be judged with any degree of success. He chose as the material to be judged the expressive pictures that are in the Rudolph Art Collection. After thoroughly examining these pictures,

it was found that only fourteen could be used to get any degree of respectable reliability. Using these fourteen pictures, an interjudge reliability of forty to fifty per cent was reached. However, this study was not considered to be of great significance since only fourteen pictures were used out of the original six hundred and sixty-six. Later research indicated that for nonverbal behavior to be understood, it must be viewed in context.

The most significant study on the consistency of nonverbal behavior was conducted by Davitz (1964). Davitz researched three areas of emotional meaning. These areas dealt with the topics of sensitivity, emotional messages and meaning, and problems of expressiveness. The first topic of sensitivity proved to be the most important research concerning reliability. Within the framework of sensitivity were the subcategories of vocal, facial, musical, graphic, and metaphorical types of communication. It was found that there was stability of performance. This stability and consistency held for accuracy and identification of meaning. This conclusion that nonverbal, emotional communication is a stable, measurable behavior led to the development of instruments for measuring this phenomena. It was also found that this reliability holds for the purpose of decoding nonverbal behavior and emitting nonverbal responses.

Scheflen (1964) conducted research dealing with posture, position, and orientation. The conclusions of his study parallel with the findings of Davitz. It was found that nonverbal behavior is consistent.

In an initial study of nonverbal communication, Galloway (1962) attempted to develop an observational instrument that would describe the consequences of nonverbal acts, based on the effects of teacher

behavior on follow-up student behavior. He succeeded in developing an instrument, but it was no more illuminating than work previously undertaken. Later, however, he developed the instrument that is being used for this study.

Love and Roderick (1971) have developed an instrument that is used for analyzing the nonverbal behavior of the teacher. This instrument reflects the earlier work done by Flanders and Galloway. There are ten categories that deal with teacher behavior. With the categories being as specific as they are, this instrument seems very promising for future use. The categories are as follows:

A. Accepts student behavior
B. Praises student behavior
C. Displays student ideas
D. Shows interest in student behavior
E. Moves to facilitate student-to-student interaction
F. Gives directions to students
G. Shows authority toward students
H. Focuses student's attention on important points
I. Demonstrates and/or illustrates
J. Ignores or rejects student behavior

An instrument that is called Facial Affects Scoring Technique (FAST) was developed by Ekman (1971) and associates and is used for measuring facial expressions. The facial expressions that are categorized are brows-forehead, eye-lid-bridge of nose, and lower face. According to Dunning (1971), the FAST technique seems promising.

French (1971) has developed an instrument for measuring nonverbal behavior that is used specifically for analyzing the nonverbal behavior of the students. They have established ten categories that reflect student behavior. However, this instrument is also very reflective of work done by Flanders and Galloway.

All of these instruments reflect the influence of the work done by Flanders in developing the categories on his instrument for the analysis

of verbal behavior. The Galloway instrument can be used in conjunction with Flanders Verbal Interaction Analysis and gives a fairly comprehensive view of the total interaction process in the classroom.

The time needed for training personnel to make the judgments concerning nonverbal behavior has not been set at any particular number of hours and will depend on the instrument that is selected to be used. Dunning (1971) developed two simple instruments to be used by guidance counselors for obtaining a self-evaluation of the nonverbal behavior of the counselor, and also that of the client. He reported that in one and one-half hours of practice, the counselors had developed a high degree of reliability.

The degree of reliability that is desired will have a direct influence on the number of hours in the training sessions. As yet, there has not been a breakthrough as far as specific training procedure in the training of observers.

The importance of nonverbal communication is beginning to show up in the curriculums at some of the major universities. French (1971) has initiated a program at the University of Tennessee that will help prospective teachers and teachers already in the field understand this importance. The program being offered at the University of Tennessee has four areas that are being stressed. They are:

A. Pupil Assessment
B. Analysis of Environmental Communications
C. Teacher Self-Assessment
D. Development of Curriculum and Instruction in Human Communication

Love and Roderick (1971) have initiated a program at the University of Maryland that is designed to help prospective teachers become more aware of their nonverbal cues and also those of the students.

Presently, the importance of nonverbal communication theory, research, and skill development is beginning to dawn and to receive the attention that it rightfully deserves. There are courses in nonverbal communication being offered now at Drake University, Michigan State University, Purdue University, Queens College, the University of North Dakota, and the University of Wisconsin.

Victoria (1971) believes that since the values of today's youth are related more to feelings than material things, considerable thought must be given to the nonverbal communicative forms. An investigation into analyzing nonverbal behavior will provide a body of knowledge that can improve the interaction process for all concerned.

The importance of nonverbal communication is finally being realized. Research studies on this subject are being undertaken and universities are now offering courses on nonverbal behavior.

CHAPTER III

INSTRUMENTATION OF THE STUDY

Galloway Analysis of Nonverbal Communication

The purpose of this study is to determine whether teachers working in low socio-economic level elementary schools and teachers working in middle socio-economic level elementary schools differ in the quantity and quality of nonverbal behavior.

The instrument selected to categorize the nonverbal behaviors of the teachers was the Galloway Analysis of Nonverbal Communication. In this interaction analysis instrument there are two classifications of nonverbal behaviors. The first classification consists of nonverbal behaviors that are encouraging. The second classification consists of nonverbal behaviors that are restricting. For clarification purposes, Galloway has placed into categories specific types of encouraging nonverbal behaviors. He suggests these categories:

1. Enthusiastic Support. Enthusiastic approval, unusual warmth, emotional support, or strong encouragement. A smile or nod to show enjoyment, pleasure, or satisfaction. A pat on the back, a warm greeting of praise, or any act that shows obvious approval. Vocal intonation or inflection of approval and support.

2. Helping. A spontaneous reaction to meet a pupil's request, help a pupil, or answer a need. A nurturant act. A look of acceptance and understanding of a problem, implying "I understand," "I know what you mean," and follow up by appropriate action. An action intended to help. A tender, compassionate, or supportive voice.

3. Receptivity. Willingness to listen with patience and interest to pupil talk. By paying attention to the pupil, the teacher shows interest, implying that "lines of communication are open." Maintains eye contact. Indicates patience and attention. Suggests a readiness to listen or an attempt at trying to understand. A pose or stance of alertness, or willingness to have pupils talk. A gesture that indicates the pupil is on the "right track." A gesture that openly or subtly encourages the pupil to continue.

4. Pro Forma. A matter of form or for the sake of form. Whether a facial expression, action, or vocal language, it neither encourages or inhibits communication. A routine act in which the teacher does not need to listen or to respond.

To further understand what is meant by restricting nonverbal behaviors, Galloway suggests these three categories. He writes:

1. Inattentive. Unwillingness or inability to be attentive. Disinterest or impatience with pupil talk. Avoids eye contact. Apparent disinterest, impatience, unwillingness to listen. Slouchy or unalert posture. "Don't care attitude," ignoring of pupil talk. Stance indicates internal tension, pre-occupation, or concern with own thought. A hand gesture to block or terminate pupil talk. Impatience, or "I want you to stop talking."

2. Unresponsive. Failure to respond when a response would ordinarily be expected. Egocentric behavior, openly ignores need, insensitive to feeling. An obvious denial of pupil feeling, uncompliance. Threatens, conjoles, condescends. Withdrawing from a request or expressed need of a pupil. Disaffection or unacceptance of feeling. A gesture suggesting tension or nervousness. Obvious interruption and interference.

3. Disapproval. Strong disapproval, negative overtones, disparagement, or strong dissatisfaction. Frowning, scowling, threatening glances. Derisive, sarcastic, or disdainful expression, that "sneers at" or condemns. Physical attack or aggressiveness, a blow, slap, or pinch. A pointed finger that pokes fun, belittles, or threatens pupils. Vocal tone that is hostile, cross, irritated, or antagonistic. Utterance suggesting unacceptance, disappointment, depreciation, or discouragement.

Under each of the classifications of encouraging and restricting nonverbal behaviors are eight observational categories. The categories of congruent-incongruent, implement-perfunctory, and personal-impersonal can be classified as having indirect teacher influence. These categories allow for greater student freedom and interaction. The categories of responsive-unresponsive, involve-dismiss, and firm-harsh can be classified as having direct teacher influence. These categories minimize student freedom and interaction. The category of receptive-inattentive relates to the nonverbal behaviors of the teacher when the students are doing the talking. The last category of comfort-distress is concerned with the nonverbal behaviors during silence or confusion.

The categories on the Galloway Analysis of Nonverbal Communication are described in the following manner:

1. Congruent or Incongruent:
   Congruent-nonverbal cues reinforce and further clarify the credibility of a nonverbal message.
   Incongruent-contradiction occurs between verbal and nonverbal cues.

2. Implement or Perfunctory:
   Implement-implementation occurs when the teacher actually uses student's idea by discussing it, reflecting upon it, or turning it to the class for consideration.
   Perfunctory-perfunctory use occurs when the teacher merely recognizes or acknowledges student's idea by automatically repeating or restating it.

3. Personal or Impersonal:
   Personal-face-to-face confrontation.
   Impersonal-avoidance of verbal interchange in which mutual glances are exchanged.

4. Responsive or Unresponsive:
   Responsive-change in teacher's pace or direction of talk in response to student behavior.
   Unresponsive-inability or unwillingness to alter the pace or direction of lecture disregarding pupil cues.

5. Involve or Dismiss:
   Involve-students are involved in a clarification or maintenance of learning task.
   Dismiss-teacher dismisses or controls student behavior.

6. Firm or Harsh:
   Firm-criticism which evaluates a situation cleanly and crisply and clarify expectations for the situation.
   Harsh-criticism which is hostile, severe, and often denotes aggressive or defensive behavior.

7. Receptive or Inattentive:
   Receptive-involves attitude of listening and interest, facial involvement, and eye contact.
   Inattentive-involves a lack of attending eye contact and teacher travel or movement.

8. Comfort or Distress:
   Comfort-silence characterized by times of reflection, thought, or work.
   Distress-instances of embarrassment or tensioned-filled moments, usually reflecting disorganization and lack of continuity.

It was necessary to train observers in order to develop reliability. Four Oklahoma State University students were selected to participate in this study. They met at the Southwest Center for Safety to begin their training. At the Center they memorized the categories of the Galloway Analysis of Nonverbal Communication instrument and developed an understanding of encouraging and restricting nonverbal behaviors. Films and role playing situations were observed by the trainees. While watching the films and role playing, they recorded the nonverbal behaviors. These observations were recorded on tally sheets that listed each category and provided space for marking (Appendix A). The nonverbal behaviors were recorded whenever a change occurred. The observers used a plus (+) for encouraging nonverbal behavior and a minus (-) for restricting nonverbal behavior. This procedure continued until they had developed relative consistency. The two observers who

were the most compatible concerning reliability were retained and the other two dismissed from the study. Observer reliability was checked three times during the overall classroom observations; once at the beginning, during the middle, and again at the end.

Observer Reliability

Scott's Coefficient was used to estimate observer reliability. The advantages of using Scott's Coefficient is that it can be used with low frequencies, in figuring percentages, works well for rapid calculation, and it is sensitive at high levels of reliability. The name of the coefficient is "pi" and it is calculated from the following formula:

$$\pi = \frac{P_o - P_e}{1 - P_e} \quad .$$

The proportion of agreement between observations made of the same teacher by different observers is P_o. P_e is the proportion of agreement expected by chance. The chance factor is found by squaring the proportion of frequencies in each category and summing these over all categories.

$$P_e = \sum_{i=1}^{k} P_i^2$$

In this formula there are k categories and P_i is the proportion of tallies falling into each category. With reference to "pi" in the previous formula, it can be expressed in words as the amount that two observers exceed chance agreement divided by the amount that perfect agreement exceeds chance (Flanders, 1966).

The data obtained for this study was analyzed by a point-biserial correlation. The succeeding chapter will deal with procedures, analysis, and treatment of data.

CHAPTER IV

PROCEDURES, ANALYSIS, AND TREATMENT OF DATA

Contained in this chapter is a description of the procedures used by the investigator to gather the data for this study. In addition, this chapter contains the tabulated results of the data obtained by using the instrument described in Chapter III. The primary purpose of gathering data was to test the following null hypotheses:

I. There is no significant relationship between the quantity of nonverbal behavior used by first grade teachers and the socio-economic status of the students they are teaching.

II. There is no significant relationship between the quality of nonverbal behavior used by first grade teachers and the socio-economic status of the students they are teaching.

The data to test the following null hypotheses was collected through the use of the Galloway Analysis of Nonverbal Communication.

Subjects

The subjects were first grade teachers selected from the Ada, Stillwater, Pawnee, and Newkirk Elementary Schools. These elementary schools were selected because of the investigator's familiarity with the area, the willingness of the principals to conduct this study in

their buildings and the willingness of their first grade teachers to be observed while they were teaching reading or mathematics.

There were eleven first grade teachers selected from elementary schools that receive Title I funds and nine first grade teachers selected from elementary schools that receive no Title I funds.

Each elementary school principal was contacted personally so that the general information and importance of this study could be explained, and to seek his permission to conduct this study. The principals suggested that they talk to their first grade teachers to see if they were willing to participate. He was to tell the first grade teachers that two prospective first grade teachers were wanting to observe the classroom while they were teaching reading or mathematics. Within a period of three weeks, the principals notified the investigator that the observations may begin at any time, given a few days notice in advance. The investigator met with each first grade teacher to schedule the observations and to personally talk with each teacher.

There were many school districts contacted about having this study done in their buildings. There were some administrators and teachers who were reluctant about participating and were not selected for this study.

Data Collection

The collection of data was made by two prospective first grade teachers who were trained in understanding and scoring the Galloway Analysis of Nonverbal Communication. These observers spent a minimum of ten hours in the training sessions and developed .70 observer reliability. They entered the classrooms of the first grade teachers

a few minutes prior to beginning their observations to allow the teachers and students to adjust to their presence. The observations were made two times of each teacher and consisted of a time period of twelve minutes for each observation. The teacher was observed a total of twenty-four minutes by each observer. Observations were made of the first grade teachers within a period of three weeks.

There were no observations made preceding holidays, special events, or any other activities that were not a part of daily routine. After the observations were made and the tally sheets collected, the data was analyzed by the investigator and a statistician to assure correct analysis.

Observer reliability was examined by employing Scott's Coefficient:

$$\pi = \frac{P_o - P_e}{1 - P_e} .$$

An explanation of Scott's Coefficient is found in Chapter III. The reliability of observers was checked at the beginning, during the middle, and again near the end of the observations.

The pertinent data relating to observer reliability is found in Table I.

TABLE I

SUMMARY OF OBSERVER RELIABILITY DURING THE COURSE OF THE INVESTIGATION

	Total	Encouraging	Restricting
EARLY	.7835	.7064	.7170
MIDDLE	.7564	.7484	.7843
END	.7592	.7780	.7418

Testing the Hypotheses

The two hypotheses of this study were tested by using a test of significant relationships (Guilford, 1965, pp. 322-323). Each hypothesis is stated and preceding it will be the test to see if a significant relationship exists. The level of confidence for r_{pbi} was set at the .05 level which requires .444 or greater to be considered significant. The following formula has been employed for test of significant relationship:

$$r_{pbi} = \frac{M_p - M_q}{O_t} \sqrt{pq} \quad .$$

Hypothesis I: There is no significant relationship between the quantity of nonverbal behavior used by first grade teachers and the socio-economic status of the students they are teaching.

To test this hypothesis, the number of tallies recorded on the Galloway Analysis of Nonverbal Communication by the trained observers was totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table II.

TABLE II

SUMMARY OF TOTAL OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 3419		Total Tallies = 2849
r_{pbi} = .0023	df = 2	P < .05

The r_{pbi} for testing Hypothesis I was .0023. With an N of twenty and a value of .444 needed for rejection of the hypothesis at the .05 level of confidence, the hypothesis was accepted.

Hypothesis II: There is no significant relationship between the quality of nonverbal behavior used by first grade teachers and the socio-economic status of the students they are teaching.

To examine this hypothesis, the trained observers recorded their observations on the Galloway Analysis of Nonverbal Communication as being either encouraging or restricting nonverbal behavior. The tallies that were recorded in each category of encouraging nonverbal behavior were totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table III.

TABLE III

SUMMARY OF ENCOURAGING OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 3033		Total Tallies = 2428
r_{pbi} = .0526	df = 2	P < .05

The r_{pbi} for testing the encouraging nonverbal behavior of Hypothesis II was .0526. With an N of twenty and a value of .444

needed for rejection of this part of the hypothesis at the .05 level of confidence, the hypothesis was not rejected.

To test the restricting nonverbal behavior of Hypothesis II, the tallies were recorded in each category and totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table IV.

TABLE IV

SUMMARY OF RESTRICTING OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 386		Total Tallies = 421
r_{pbi} = .2220	df = 2	P < .05

The r_{pbi} for testing the restricting part of Hypothesis II was .2220. With an N of twenty and a value of .444 needed for rejection of this section of the hypothesis at the .05 level of confidence, the hypothesis was accepted.

Supplementary Analysis of Data

Previous analysis of the data collected revealed that the three null hypotheses in this study were accepted. The data which was

analyzed was divided into three main sections: the first section being the total of both encouraging and restricting nonverbal behavior; the second was the total of only encouraging nonverbal behavior; and the third was the total of restricting nonverbal behavior.

Galloway (1970) suggests that for a more comprehensive understanding of the teacher's nonverbal behavior in the classroom a supplementary analysis of data can be conducted on the observations that fall into each respective category or group of categories. For the grouping of categories, Galloway states that the first three categories can be classified as being indirect teacher nonverbal behavior, the next three are classified as being direct teacher nonverbal behavior, the following (Category 7), relates to the nonverbal behavior of the teacher when the students are talking, and the last category (Category 8), deals with the teacher's nonverbal behavior during comfort or distress in the classroom. An analysis of the groups and categories previously mentioned will be undertaken in this section.

The statistical test selected to make the supplementary analysis of data is a point-biserial correlation and is the one that was used for testing of the three null hypotheses. The formula is as follows:

$$r_{pbi} = \frac{M_p - M_q}{O_t} \sqrt{pq} \quad .$$

The tallies that were recorded in testing the total indirect nonverbal behavior of the teachers, both encouraging and restricting, were totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data

used to determine whether or not there was a significant relationship is in Table V.

TABLE V

SUMMARY OF TOTAL INDIRECT OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 2011		Total Tallies = 1612
r_{pbi} = .0411	df = 18	P < .05

For the total indirect observational data the computed r_{pbi} value was .0411. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

To test the total direct nonverbal behavior of the teachers, both encouraging and restricting, the tallies that were recorded were totaled separately for first grade teachers teaching in Title I elementary schools and for first grade teachers teaching in non-Title I elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table VI.

TABLE VI

SUMMARY OF TOTAL DIRECT OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 410		Total Tallies = 277
r_{pbi} = .2851	df = 18	P < .05

The computed r_{pbi} was .2851 for the total direct observational data. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

The total nonverbal behavior of the teacher, both encouraging and restricting, when the students were talking, was tested by totaling separately the tallies recorded for first grade teachers teaching in middle socio-economic level elementary schools and for first grade teachers teaching in low socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table VII.

TABLE VII

SUMMARY OF TOTAL OBSERVATIONAL DATA IN CATEGORY SEVEN FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 956		Total Tallies = 897
r_{pbi} = .3027	df = 18	P < .05

In category seven the total observational data had a computed r_{pbi} values of .3027. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

The tallies that were recorded for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools were totaled separately in order to test the total nonverbal behavior of the teacher, both encouraging and restricting, when there was either comfort or distress in the classroom. The relevant data used to determine whether or not there was a significant relationship is in Table VIII.

TABLE VIII

SUMMARY OF TOTAL OBSERVATIONAL DATA IN CATEGORY EIGHT FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 42		Total Tallies = 63
r_{pbi} = .4456	df = 18	P > .05

The computed r_{pbi} values was .4456 for the total observational data in category eight. With 18 degrees of freedom, the r_{pbi} was found to be significant at the .05 level.

The encouraging indirect nonverbal behavior of the first grade teachers teaching in low socio-economic level elementary schools and

the first grade teachers teaching in middle socio-economic level elementary schools was tested by totaling separately the recorded tallies. The relevant data used to determine whether or not there was a significant relationship is in Table IX.

TABLE IX

SUMMARY OF ENCOURAGING INDIRECT OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 1781		Total Tallies = 1371
r_{pbi} = .1058	df = 18	P < .05

For the encouraging indirect observational data the computed r_{pbi} value was .1058. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

To test the encouraging direct nonverbal behavior of the teachers, the tallies that were recorded were totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table X.

TABLE X

SUMMARY OF ENCOURAGING DIRECT OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 385		Total Tallies = 249
r_{pbi} = .3535	df = 18	P < .05

The computed r_{pbi} value for the encouraging direct observational data was .3535. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

When the students were talking, the encouraging nonverbal behavior of the first grade teachers teaching in low socio-economic level elementary schools and the first grade teachers teaching in the middle socio-economic level elementary schools was tested by totaling separately the tallies from each group. The relevant data used to determine whether or not there was a significant relationship is in Table XI.

TABLE XI

SUMMARY OF ENCOURAGING OBSERVATIONAL DATA IN CATEGORY SEVEN FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 836		Total Tallies = 773
r_{pbi} = .2588	df = 18	P < .05

In category seven the computed r_{pbi} value was .2588 for the encouraging observational data. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

The encouraging nonverbal behavior of the teacher when there was comfort in the classroom was tested by totaling separately the tallies recorded for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table XII.

TABLE XII

SUMMARY OF ENCOURAGING OBSERVATIONAL DATA IN CATEGORY EIGHT FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 31		Total Tallies = 35
r_{pbi} = .2319	df = 18	$P < .05$

For the encouraging observational data in category eight, the computed r_{pbi} value was .2319. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

The tallies that were recorded for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools

were totaled separately in order to test the restricting indirect nonverbal behavior of the teacher. The relevant data used to determine whether or not there was a significant relationship is in Table XIII.

TABLE XIII

SUMMARY OF RESTRICTING INDIRECT OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 230		Total Tallies = 241
r_{pbi} = .1862	df = 18	P < .05

The computed r_{pbi} value was .1862 for the restricting indirect observational data. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

The restricting direct nonverbal behavior of the first grade teachers teaching in low socio-economic level elementary schools and the first grade teachers teaching in middle socio-economic level elementary schools was tested by totaling separately the recorded tallies. The relevant data used to determine whether or not there was a significant relationship is in Table XIV.

TABLE XIV

SUMMARY OF RESTRICTING DIRECT OBSERVATIONAL DATA FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 25		Total Tallies = 28
r_{pbi} = .1520	df = 18	P < .05

For the restricting direct observational data, the computed r_{pbi} value was .1520. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

To test the restricting nonverbal behavior of the teacher when the students were talking, the tallies that were recorded were totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table XV.

TABLE XV

SUMMARY OF RESTRICTING OBSERVATIONAL DATA IN CATEGORY SEVEN FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 120		Total Tallies = 124
r_{pbi} = .1463	df = 18	P < .05

The computed r_{pbi} value was .1486 for the restricting observational data in category seven. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

To test the restricting nonverbal behavior of the teacher in situations when there was evidence of distress in the classroom, the recorded tallies were totaled separately for first grade teachers teaching in low socio-economic level elementary schools and for first grade teachers teaching in middle socio-economic level elementary schools. The relevant data used to determine whether or not there was a significant relationship is in Table XVI.

TABLE XVI

SUMMARY OF RESTRICTING OBSERVATIONAL DATA IN CATEGORY EIGHT FOR THE TEST OF SIGNIFICANT RELATIONSHIP BETWEEN THE NONVERBAL BEHAVIOR OF TEACHERS IN LOW AND MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

LOW SOCIO-ECONOMIC LEVEL		MIDDLE SOCIO-ECONOMIC LEVEL
Total Tallies = 11		Total Tallies = 28
r_{pbi} = .3751	df = 18	$P < .05$

For the restricting observational data in category eight, the computed r_{pbi} value was .3751. With 18 degrees of freedom, the r_{pbi} was found not to be significant at the .05 level.

Summary

The three null hypotheses of this study were tested and the results are summarized in this chapter. Using the large sections of total nonverbal behavior including both encouraging and restricting, total encouraging nonverbal behavior, and total restricting nonverbal behavior, it was found that no significant relationships existed and the null hypotheses were accepted.

In the supplementary analysis of data, there was a significant relationship found which indicated that middle socio-economic level elementary teachers exhibit more nonverbal behavior during times of comfort and distress than do low socio-economic level elementary teachers (Table VIII).

No significant relationships were found in the following:

1) Total indirect teacher nonverbal behavior, which includes both encouraging and restricting (Table V).
2) Total direct teacher nonverbal behavior, which includes both encouraging and restricting (Table (VI).
3) Total teacher nonverbal behavior for category seven, which includes both encouraging and restricting (Table VII).
4) Encouraging indirect teacher nonverbal behavior (Table IX).
5) Encouraging direct teacher nonverbal behavior (Table X).
6) Encouraging teacher nonverbal behavior for category seven (Table XI).
7) Encouraging teacher nonverbal behavior for category eight (Table XII).
8) Restricting indirect teacher nonverbal behavior (Table XIII).

9) Restricting direct teacher nonverbal behavior (Table XIV).

10) Restricting teacher nonverbal behavior for category seven (Table XV).

11) Restricting teacher nonverbal behavior for category eight (Table XVI).

Chapter V presents the findings of the study, the conclusions drawn from these findings, and recommendations of areas for further research.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This study was designed to see if there was a significant relationship between the quantity and quality of nonverbal behavior used by first grade teachers and the socio-economic status of the students they are teaching.

Summary

A review of selected research and literature seems to indicate that the nonverbal form of communication reveals the inner feelings of man and that when a person is in doubt regarding meaning, the nonverbal behavior is the accepted form of communication. It further indicates that children from different socio-economic backgrounds and cultures have to rely on this form of communication either because of not understanding the culture or because they are lacking in verbal facilities necessary to compete in the classroom. With teaching involving an interaction process between students and teacher, it seems imperative that teachers must become aware of not only what they are saying, but how they are saying it. In light of the literature and research reviewed, it seems that a study of this nature has merit.

The instrument selected to analyze the nonverbal behavior of the first grade teachers was the Galloway Analysis of Nonverbal

Communication. This instrument has two divisions which are entitled encouraging nonverbal behavior and restricting nonverbal behavior. Under each of these divisions, there are eight categories listed. Chapter III contains a complete description of this instrument.

The selection of the participating first grade teachers was based upon several factors: (1) administrative cooperation; (2) teacher willingness to participate in this study; (3) geographic locale; (4) the socio-economic level of the students the teachers are teaching; and (5) the cooperativeness of the teacher to teach either reading or mathematics while the observers were observing. There were nine first grade teachers selected who teach in elementary schools that do not receive any Title I funds and eleven first grade teachers selected who teach in elementary schools that receive Title I funds. Two trained observers entered the classrooms of the selected teachers and recorded the nonverbal behavior of the teacher according to the categories established by the instrument selected for this study.

The major objective of this study was to test the following null hypotheses:

1) There is no significant relationship between the quantity of nonverbal behavior used by first grade teachers and the socio-economic status of the student they are teaching.
2) There is no significant relationship between the quality of nonverbal behavior used by first grade teachers and the socio-economic status of the students they are teaching.

The data was analyzed through a test of significant relationship called a point-biserial correlation and the level of confidence was set at the .05 level.

Findings

The findings of this study considered to be the most significant were the following:

1) There was no significant relationship between the quantity of nonverbal behavior used by first grade teachers in low and middle socio-economic level elementary schools.
2) There was no significant relationship between the quality of encouraging nonverbal behavior used by first grade teachers in low and middle socio-economic level elementary schools.
3) There was no significant relationship between the quality of restricting nonverbal behavior used by first grade teachers in low and middle socio-economic level elementary schools.

In the supplementary analysis of data there was a significant relationship found which indicated that middle socio-economic level elementary teachers exhibit more nonverbal behavior during times of comfort and distress than do low socio-economic level elementary teachers.

Conclusions

The following conclusions have been drawn from the findings of this study:

1) The socio-economic level of the students, whether it be low or middle class, does not appreciably alter the amount, including both encouraging and restricting, of nonverbal behavior exhibited by the teachers.
2) The socio-economic level of the students, whether it be

low or middle class, does not appreciably alter the amount of encouraging nonverbal behavior exhibited by the teacher.

3) The socio-economic level of the students, whether it be low or middle class, does not appreciably alter the amount of restricting nonverbal behavior exhibited by the teacher.

It was concluded from the findings in the supplementary analysis of data that the nonverbal behavior emitted by the first grade teachers in times of distress or comfort while in the classroom, seems to be influenced by the socio-economic level of the students. First grade teachers in middle socio-economic level elementary schools exhibited more nonverbal behavior during this situation than corresponding teachers in low socio-economic level elementary schools.

Recommendations

The data from this study would seem to suggest that first grade teachers should become increasingly aware of their nonverbal behavior and its relevance to the total communicative picture within different school environments. Students who find themselves in a school environment which differs from their home environment must rely on the nonverbal cues of the teacher for further understanding and reinforcement of the verbal message. They must become aware of not only "what" they are communicating, but "how" they are communicating. A teacher's effectiveness in the classroom is often considered to be his ability to communicate with the students, to understand the behavior of the students, and to help them with their needs and interests.

The goal of communication might best be accomplished by having in-service training and by having universities offer courses in

understanding and using the phenomena of nonverbal communication when working with children from all socio-economic backgrounds.

Recommendations for Further Study

Generating questions is an important aspect of any research study. Empirical investigations are needed to help answer many of the remaining questions pertaining to the observable phenomena of nonverbal behavior.

1) Attempts should be made to study the nonverbal behavior of administrators and supervisory personnel while they are involved in an interaction process with teachers.
2) The nonverbal behavior of guidance counselors should be analyzed with respect to the types of nonverbal behavior used in the counseling process.
3) Experimental programs concerning nonverbal behavior should be developed at the university level to help prospective teachers realize and understand the importance of their nonverbal behavior.
4) A research study needs to be undertaken that uses a larger sampling of first grade teachers from each socio-economic level elementary school. With the study consisting of a larger number of first grade teachers, there would be the possibility of seeing whether or not there was a significant relationship between the socio-economic level of the students and other variables which could possibly relate to teacher nonverbal behavior; for example, age of the teacher, socio-economic background of the teacher, years of teaching experience, and educational preparation of the teacher.

5) An experimental study could be conducted on each area in which there was found to be a significant relationship between first grade teachers' nonverbal behavior and the socio-economic level of the students.

6) A study could be conducted to see if the socio-economic level of the observers relates to how they perceive the nonverbal behavior of the teacher.

Hopefully, this research study will serve to create further interest in the subject of nonverbal communication. The information obtained from additional investigations in this area may cause nonverbal behavior to become a very important part in the training of future teachers. There are so many effects that can come through an understanding of nonverbal communication; improved student-teacher relationships, more effective classroom teaching, and help for the disadvantaged or culturally different child in adjusting to an unfamiliar school situation. If an understanding of the many aspects of nonverbal behavior can contribute to the educational process in these ways, then it certainly merits all of the consideration it will receive in future studies.

A SELECTED BIBLIOGRAPHY

Allport, Floyd H. Social Psychology. Boston: Houghton Mifflin Co., 1924.

Bernstein, Basal. "Social Structure, Language and Learning." Educational Research, Vol. 3 (June, 1961), 163-76.

Birdwhistell, Ray L. Kinesics and Content. Philadelphia: University of Pennsylvania Press, 1970.

Birdwhistell, Ray L. Introduction to Kinesics. Louisville: University of Louisville Press, 1952.

Black, Millard H. "Characteristics of the Culturally Disadvantaged Child." The Disadvantaged Child. Boston: Houghton Mifflin Co., 1966.

Brooks, William D. Speech Communication. Dabuque, Iowa: William C. Brown Company, 1971.

Darwin, Charles. The Expression of the Emotions in Man and Animals. New York: Philosophical Library, 1955.

Davidson, H. H., and G. Lang. "Children's Perceptions of Teachers' Feelings Toward Them Related to Self-Perception, School Achievement, and Behavior." Journal of Experimental Education, Vol. 24 (December, 1960), 107-108.

Davitz, James. The Communication of Emotional Meaning. New York: McGraw-Hill, 1964.

Deutsch, Martin. "The Disadvantaged Child and the Learning Process." Education in Depressed Areas. New York: Teachers College, Columbia University, 1963.

Duchenne, G. Mecanisme de la Phyionomie Humaine ou Analyse Electro-Physiologique de L' e pression des Passions. Paris: Bailliere, 1962.

Dunning, G. B. "Research in Nonverbal Communication." Theory into Practice, Vol. 10 (October, 1971), 256.

Ekman, Paul, W. Friesen, and S. Tomkins. "Facial Affects Scoring Technique: A First Validity Study." Semiotica, Vol. 3 (1971), 37-58.

Exline, R., and L. Winters. "Adaptive Relations and Mutual Glances in Dyads." Affect, Cognition and Personality. Eds. S. Tomkins and C. Izard. New York: Springer, 1965.

Exline, R., D. Gray, and D. Schuette. "Visual Behavior in a Dyad as Affected by Interview Content and Sex of Respondent." Journal of Personality and Social Psychology, Vol. 1 (1961), 203-209.

Flanders, Ned A. Analyzing Teacher Behavior. Reading, Massachusetts: Addison-Wesley Publishing Company, 1970.

Flanders, Ned A. Interaction Analysis in the Classroom: A Manual for Observers. Ann Arbor: University of Michigan, 1966.

French, Russell. "Analyzing and Improving Nonverbal Communication: A Model for Inservice Education." Theory into Practice (In Press), 1971.

Galloway, Charles M. "The Nonverbal: An Approach for Supervisors." Paper presented at the National Symposium on "Observational Systems and Supervision," January 27-28, 1972, Cleveland, Ohio.

Galloway, Charles M. "Nonverbal: The Language of Sensitivity." Theory into Practice, Vol. 10 (October, 1971), 227.

Galloway, Charles M. "Teaching is Communicating: Nonverbal Language in the Classroom." Washington, D.C.: Association for Student Teaching, NEA Bulletin No. 29, 1970.

Gibson, J., and A. Pick. "Perception of Another Person's Looking Behavior." American Journal of Psychology, Vol. 76 (1963), 86-98.

Guilford, J. P. Fundamental Statistics in Psychology and Education. New York: McGraw-Hill Book Company, 1965.

Halpin, Andrew W. Theory and Research in Administration. New York: The Macmillan Company, 1966.

Heald, James E. "In Defense of Middle Class Values." Phi Delta Kappan (October, 1964), 81-83.

Hodge, R. Lewis. "Interpersonal Classroom Communication Through Eye Contact." Theory into Practice, Vol. 10 (October, 1971), 264-267.

Koch, Robert. "The Teacher and Nonverbal Communication." Theory into Practice, Vol. 10 (October, 1971), 231-242.

Lail, Sue S. "The Model in Use." Theory into Practice, Vol. 7 (December, 1968), 176-180.

Lehner, George F. J., and Ella Kube. The Dynamics of Personal Adjustment. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.

Love, Alice M., and Jessie A. Roderick. "Teacher Nonverbal Communication: The Development and Field Testing of an Awareness Unit." Theory into Practice (In Press), 1971.

Mehrabian, Albert. "Interference of Attitude from the Posture, Orientation, and Distance of a Communicator." Journal of Consulting and Clinical Psychology, Vol. 32 (1968), 196-308.

Mehrabian, Albert. "Significance of Posture and Position in the Communication of Attitude and Status Relationships." Psychological Bulletin, No. 71 (1969), 359-372.

Michael, G., and F. Willis. "The Development of Gestures in Three Subculture Groups." The Journal of Social Psychology, Vol. 79 (1969), 35-41.

Miller, Donald. "Nonverbal Aspects of the Teaching-Learning Situation." Occasional Paper No. 1, Madison, Wisconsin: University of Wisconsin, 1961. (Mimeographed)

Riessman, Frank. The Culturally Deprived Child. New York: Harper and Brothers, 1962.

Ruesch, Jurgen, and Weldon Kees. Nonverbal Communication. Los Angeles: University of California Press, 1956.

Scheflen, A. "The Significance of Posture in Communication Systems." Psychiatry, Vol. 27 (1964), 316-331.

Strang, Ruth. Professor Emeritus, Columbia University, 1964. (In Correspondence)

Taba, Hilda, and Deborah Elkins. Teaching Strategies for the Culturally Disadvantaged. Chicago: Rand McNally and Company, 1966.

Victoria, James. "A Language for Affective Education." Theory into Practice, Vol. 10 (October, 1971), 300-304.

Weaver, Carl H., and Warren L. Strausbaugh. Fundamentals of Speech Communication. New York: American Book Company, 1964.

APPENDIX A

INSTRUMENT

GALLOWAY ANALYSIS OF NONVERBAL COMMUNICATION

	Encouraging	Restricting
INDIRECT INFLUENCE	1. CONGRUENT: nonverbal cues reinforce and further clarify the credibility of a verbal message.	1. INCONGRUENT: contradiction occurs between verbal and nonverbal cues.
	2. IMPLEMENT: implementation occurs when the teacher actually uses student's idea either by discussing it, reflecting on it, or turning it to the class for consideration.	2. PERFUNCTORY: perfunctory use occurs when the teacher merely recognizes or acknowledges student's idea by automatically repeating or restating it.
	3. PERSONAL: face-to-face confrontation.	3. IMPERSONAL: avoidance of verbal interchange in which mutual glances are exchanged.
DIRECT INFLUENCE	4. RESPONSIVE: change in teacher's pace or direction of talk in response to student behavior, i.e., bored, disinterested, or inattentive.	4. UNRESPONSIVE: inability or unwillingness to alter the pace or direction of lecture disregarding pupil cues.
	5. INVOLVE: students are involved in a clarification or maintenance of learning tasks.	5. DISMISS: teacher dismisses or controls student behavior.
	6. FIRM: criticisms which evaluate a situation cleanly and crisply and clarify expectations for the situation.	6. HARSH: criticisms which are hostile, severe, and often denote aggressive or defensive behavior.
	7. RECEPTIVE: involves attitude of listening and interest, facial involvement, and eye contact.	7. INATTENTIVE: involves a lack of attending eye contact and teacher travel or movement.
	8. COMFORT: silences characterized by times of reflection, thought, or work.	8. DISTRESS: instances of embarrassment or tension-filled moments, usually reflecting disorganization and disorientation.

TALLY SHEET FOR OBSERVATIONS

TOWN_____ SCHOOL_____

Categories	Tallies	Total	Enc.	Res.
Congruent-Incongruent				
Implement-Perfunctory				
Personal-Impersonal				
Responsive-Unresponsive				
Involve-Dismiss				
Firm-Harsh				
Receptive-Inattentive				
Comfort-Distress				
	TOTALS			

Encouraging - Use a plus (+)
Restricting - Use a minus (-)

APPENDIX B

GALLOWAY OBSERVATION DATA

TOTAL OBSERVATIONAL DATA OF FIRST GRADE TEACHERS' NONVERBAL BEHAVIOR IN LOW SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

I.D. NO.	Categories								
	1	2	3	4	5	6	7	8	TOTAL
1	14	40	81	10	9	22	91	5	272
2	37	52	67	3	15	16	105	0	295
3	60	42	154	5	24	12	116	2	415
4	16	18	98	6	9	1	93	4	245
5	78	24	101	5	6	13	65	4	296
6	32	44	81	10	9	34	71	5	286
7	39	20	103	6	8	23	73	1	273
8	94	29	93	17	4	30	74	3	344
9	34	63	129	3	5	27	104	4	369
10	9	58	95	9	5	24	81	6	287
11	37	56	113	18	9	13	83	8	337

TOTAL OBSERVATIONAL DATA OF FIRST GRADE TEACHERS' NONVERBAL BEHAVIOR IN MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

I.D. NO.	Categories								
	1	2	3	4	5	6	7	8	TOTAL
1	59	11	137	6	8	9	121	1	352
2	84	25	195	5	7	10	147	2	475
3	30	23	122	6	12	25	105	10	333
4	50	19	58	8	4	9	91	14	253
5	71	40	60	5	5	1	83	5	270
6	14	43	62	8	6	30	94	8	265
7	18	55	76	12	5	23	62	10	261
8	18	75	83	13	7	25	110	5	336
9	44	28	112	16	8	4	84	8	304

ENCOURAGING OBSERVATIONAL DATA OF FIRST GRADE TEACHERS' NONVERBAL BEHAVIOR IN LOW SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

I.D. NO.	Categories								
	1	2	3	4	5	6	7	8	TOTAL
1	14	34	74	8	7	22	84	3	246
2	36	35	56	3	9	16	87	0	242
3	54	32	110	5	18	12	87	2	320
4	16	18	97	6	9	1	79	4	230
5	76	22	89	5	6	13	61	4	276
6	28	29	80	10	7	34	54	4	246
7	33	8	95	6	6	23	67	1	239
8	94	28	91	17	4	30	74	3	341
9	23	51	129	3	5	27	101	4	343
10	7	41	76	7	4	23	70	2	230
11	37	55	113	18	8	13	72	4	320

ENCOURAGING OBSERVATIONAL DATA OF FIRST GRADE TEACHERS' NONVERBAL BEHAVIOR IN MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

I.D. NO.	Categories								
	1	2	3	4	5	6	7	8	TOTAL
1	58	10	100	6	6	9	106	0	295
2	82	23	177	5	5	10	136	2	440
3	25	14	85	4	6	24	79	7	244
4	42	12	58	8	4	9	88	7	228
5	71	36	60	5	5	1	82	5	265
6	13	21	50	6	5	30	67	0	192
7	14	34	74	9	4	23	51	2	211
8	11	64	69	9	5	23	80	4	265
9	40	24	104	16	8	4	84	8	288

RESTRICTING OBSERVATIONAL DATA OF FIRST GRADE TEACHERS' NONVERBAL BEHAVIOR IN LOW SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

I.D. NO.	Categories								TOTAL
	1	2	3	4	5	6	7	8	
1	0	6	7	2	2	0	7	2	26
2	1	17	11	0	6	0	18	0	53
3	6	10	44	0	6	0	29	0	95
4	0	0	1	0	0	0	14	0	15
5	2	2	12	0	0	0	4	0	20
6	4	15	1	0	2	0	17	1	40
7	6	12	8	0	2	0	6	0	34
8	0	1	2	0	0	0	0	0	3
9	11	12	0	0	0	0	3	0	26
10	2	17	19	2	1	1	11	4	57
11	0	1	0	0	1	0	11	4	17

RESTRICTING OBSERVATIONAL DATA OF FIRST GRADE TEACHERS' NONVERBAL BEHAVIOR IN MIDDLE SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

I.D. NO.	Categories								
	1	2	3	4	5	6	7	8	TOTAL
1	1	1	37	0	2	0	15	1	57
2	2	2	18	0	2	0	11	0	35
3	5	9	37	2	6	1	26	3	89
4	8	7	0	0	0	0	3	7	25
5	0	4	0	0	0	0	1	0	5
6	1	22	12	2	1	0	27	8	73
7	4	21	2	3	1	0	11	8	50
8	7	11	14	4	2	2	30	1	71
9	4	4	8	0	0	0	0	0	16

VITA

Gene L. Davis

Candidate for the Degree of

Doctor of Education

Thesis: NONVERBAL BEHAVIOR OF FIRST GRADE TEACHERS IN DIFFERENT SOCIO-ECONOMIC LEVEL ELEMENTARY SCHOOLS

Major Field: Elementary Education

Biographical:

Personal Data: Born near Rossville, Kansas, July 15, 1943, the son of Mr. and Mrs. Marvin Davis.

Education: Attended elementary school at Rossville, Kansas; graduated from Rossville High School, Rossville, Kansas, in 1961; received the Bachelor of Arts degree from College of Emporia, Kansas, with a major in Elementary Education, in August, 1965; received the Master of Science degree from Kansas State Teachers College, Emporia, Kansas, in May, 1969; received the Specialist in Education degree from Kansas State Teachers College, Emporia, Kansas, in August, 1970; completed the requirements for the Doctor of Education degree at the Oklahoma State University in May, 1973.

Professional Experience: Teacher of seventh and eighth grade science at Marion Junior High School, Marion Public Schools, 1965-1967; teacher of seventh and eighth grade mathematics at Marion Junior High School, Marion Public Schools, 1967-1968; teacher of sixth grade at Maynard Elementary School, Emporia Public Schools, 1968-1970; teacher of sixth grade at Grant Elementary School, Topeka Public Schools, 1970-1971; Graduate Assistant for the Southwest Center for Safety, Oklahoma State University, Stillwater, Oklahoma, 1971-1972; TTT Doctoral Intern Fellowship, 1972-1973; faculty member, Southeastern State College, Durant, Oklahoma, 1972-1973.