CLIFFORD EUGENE HIATT<br>Bachelor of Arts<br>California State University, Fresno<br>Fresno, California<br>1956<br>Master of Arts<br>California Polytechnic State University, San Luis Obispo San Luis Obispo, California 1965

Submitted to the Faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements for the Degres of DOCTOR OF EDUCATION<br>July, 1977

Thesis

$$
\begin{aligned}
& 1977 D \\
& H 623 i \\
& \operatorname{cop} .2
\end{aligned}
$$



IN ELEMENTARY SCHOOL CLASSROOMS

Thesis Approved:


## PREFACE

This study is concerned with the testing of six hypotheses as defined in The Complexities of an Urban Classroom. These hypotheses pertain to interactions between a classroom teacher and a single pupil. They are termed as "personalized interaction" and are postulated to have effect upon a number of other classroom behaviors such as: pupil satisfaction, pupil esteem for the teacher, clarification of barriers to learning, classroom control, teacher liking of pupils, and academic achievement. The testing of these interactions took place during the 1976-1977 school year.

I wish to express appreciation to my major adviser, Dr. Donald Myers, for his guidance throughout this study. Appreciation is also expressed to Dr. Russell Dobson, Dr. T. J. Mills, and Dr. Larry Perkins for their service and encouragement as committee members. A special thank you is due Dr. Vernon Troxel, a late addition to my committee, who replaces recently retired Dr. Idella Lohmann. Furthermore, this study could not have been conducted without the theoretical base for the study provided primarily by the insightful research of Dr . Louis Smith, Professor of Education and Psychology, Washington University, St. Louis, Missouri.

Further appreciation is expressed to those 36 elementary teachers who volunteered for participation in this study. Also a "thank you" is extended to the staff of Charles E. Teach Elementary School who willingly assisted my research efforts in conducting the pilot study
by serving as subjects, allowing me to polish the procedures and instrumentation of the study. The Teach School Office Staff was al so of invaluable assistance.

I am not sure it is possible to express my gratitude to the three California Polytechnic State University graduate students who collected the research data for this study. Marsha Luker, Lois Howlett, and Roger Evans spent literally hundreds of hours training for the study, conducting the pilot study, and collecting the final data for the study. Their always cheerful, willing attitudes and unassuming competence resulted in well prepared accurate information. They, and their efforts, are greatly appreciated.

Appreciation is also expressed to Velda Davis who rendered invaluable service in the organization and management of this study.

Finally, I dedicate this manuscript with love to my wife, Diane, my son Blake, my daughter Paige, and my daughter Lisa.

## TABLE OF CONTENTS

Chapter Page
I. THE RESEARCH PROBLEM ..... 1
Introduction ..... 1
Rationale for the Study ..... 4
Purpose of the Study ..... 5
Statement of the Problem ..... 6
Basic Hypotheses ..... 6
Definition of Terms ..... 7
Limitations of the Study ..... 8
Major Assumptions ..... 9
Methodology and Design ..... 9
Format for Succeeding Chapters ..... 11
II. REVIEW OF SELECTED RESEARCH AND LITERATURE ..... 12
The Early Years ..... 12
Teacher-Pupil Interaction ..... 13
Conclusion ..... 15
III. RESEARCH DESIGN AND INSTRUMENTATIONS OF THE STUDY ..... 17
Introduction ..... 17
The Pilot Study ..... 17
Description of the Subjects ..... 17
Instrumentation ..... 18
Teacher Liking of Pupils ..... 19
Clarification of Specific Barriers to Learning ..... 19
Personalized Interaction ..... 20
Pupil Survey ..... 24
Pupil Satisfaction ..... 25
Pupil Esteem for the Teacher ..... 25
Classroom Control ..... 25
Academic Achievement ..... 26
Statistical Treatment ..... 26
IV. ANALYSIS AND TREATMENT OF DATA ..... 28
Data Analysis ..... 28
Hypotheses Testing ..... 28
Chapter Page
Hypothesis 2 ..... 29
Hypothesis 4 ..... 29
Hypothesis 5 ..... 29
Hypothesis 7 ..... 30
Hypothesis 8 ..... 30
Hypothesis 10 ..... 31
Summary ..... 32
V. CONCLUSIONS, THEORETICAL CONSIDERATIONS, RECOMMENDATIONS, AND SUMMARY ..... 36
Conclusions ..... 36
Theoretical Considerations ..... 37
Classroom Control ..... 37
Teacher Liking of Pupils ..... 39
Barriers to Learning ..... 41
Academic Achievement ..... 42
Recommendations ..... 43
Summary ..... 44
A SELECTED BIBLIOGRAPHY ..... 46
APPENDI XES ..... 49
APPENDIX A - TEACHER INTERVIEW SCALE ..... 50
APPENDIX B - FLANDERS VERBAL INTERACTION ANALYSIS SCALE ..... 53
APPENDIX C - THE GALLOWAY ANALYSIS OF NONVERBAL ..... 56 COMMUNICATION59
APPENDIX E - PUPIL SURVEY FORM ..... 62
APPENDIX F - CLASSROOM CONTROL ANALYSIS ..... 65

## LIST OF TABLES

Table Page
I. Correlation Coefficients and Levels of Significance for Variables of Personalized Interaction . . . . . 33
II. Numerical Values of Teacher Liking of Pupils, Personalized Interaction, Pupil Satisfaction, Pupil Esteem, Pupil Satisfaction and Esteem, Clarification of Specific Barriers to Learning, Classroom Control and Academic Achievement . . . . . 34
III. Correlation Coefficients and Coefficients of Determinations . . . . . . . . . . . . . . . . 42

## CHAPTER I

THE RESEARCH PROBLEM

## Introduction

The early years of schooling are of critical importance to the creation of a successful total school experience. Teachers and publishers of educational materials have become proficient in providing programs and developing teaching techniques designed to enhance learning. In spite of well designed curricula and sophisticated instructional materials some children show a surprising lack of evidence that they are learning the skills taught in schools.

Much research has been done, many studies have been written, and numerous programs have been developed for the purpose of improving instructional skills and methods. Learning difficulties have been diagnosed and prescriptions written. Successes have been measured and failures have led to renewed efforts to identify techniques which will enhance learning, thus decreasing the numbers of learning deficiencies. The search has been long and arduous, centering predominantly around curriculum design, materials, and methods. A gap continues to exist, however, between teaching and learning.

One aspect of schooling at the elementary school level has been much neglected. That neglect has centered around certain relationships which exist within a classroom between the learner and teacher, and the
effect these relationships have on the learning process. For the purpose of this study these relationships are termed "personalized interaction" as described by Smith and Geoffrey in The Complexities of an Urban Classroom.

Smith and Geoffrey (1968) conducted what they describe as a "microethnographic" study of life in an elementary school classroom. These teacher/author/researchers combined efforts to make an intensive analysis of a single, inner city, "slum" classroom. Smith was a professor of educational psychology at the Graduate Institute of Education, Washington, University, St. Louis, Missouri. Geoffrey was an elementary teacher in whose classroom this study took place.

Smith and Geoffrey's work is probably the most intensive cooperative effort ever made between an educational psychologist and a classroom teacher. Smith was able to spend, for a period of one semester, approximately 80 per cent of the school day in Geoffrey's classroom. Smith kept a detailed record, as did Geoffrey, of the day-to-day events and issues of classroom teaching.

As procedures became established the authors attempted to abstract from their observations some operational definitions. They described, named, and defined the phenomena observed. The procedure they followed began to render the information collected down to more specific terms; e.g.,
(1) By personalized interaction we mean the interaction between the teacher and a single pupil.
(2) Interaction--a minimum sequence in which the behavior of one or more persons follows another.
(3) Behavior-a primitive term, the things people do.
(4) Person--a primitive term, an individual.
(5) Teacher-an incumbent in a role in the school in which an individual attempts to change the learning of another, the pupil.
(6) Pupil--a role in which one is expected to learn.
(7) Role--a pattern of activities, interactions, and sentiments bound together by a group belief.
(8) And so forth (p. 17).
By using these reduction procedures the list of concepts grew for Smith and Geoffrey, eventually resulting in their conceptualizing the following 10 hypotheses:
(1) As organizational structure shifts from a single class to a split-level class the amount of personalized interaction decreases.
*(2) As teacher-liking of pupils increases, then the amount of personalized interaction increases.
(3) As staff norms increase in intensity and crystallization and decrease in range of tolerable behavior regarding personal interaction, then the amount of personalized interaction increases.
*(4) As amount of personalized interaction increases, then pupil satisfaction increases.
*(5) As amount of personalized interaction increases, then pupil esteem for the teacher increases.
(6) As amount of personalized interaction increases, differentiation in classroom role-structure increases.
*(7) As amount of personalized interaction increases, clarification of specific barriers to learing increases.

* (8) As pupil satisfaction and esteem for teacher increase, then classroom control increases.
(9) As differentiation in classroom role-structure increases, individuality in self-conceptions increases.
* (10) As clarification of specific barriers to learning increases, then academic achievement increases (pp. 18, 19) 。

Hypotheses 2, 4, 5, 7, 8, and 10, whose numbers are marked with an asterisk, are those selected to constitute the basis of this study. The purpose in selecting only six of the ten hypotheses is one of interpretation and ability to apply quantitative measures to the testing of these hypotheses. To measure hypothesis 1 a number of single-level classes changing to split-level classes would need to be found for study. This would present a significant methodological problem. Hypotheses 3, 6, and 9 are vague and would need further clarification than that provided by $S m i t h$ and Geoffrey. To test these would require a contrived situation, possibly using experimental research methodology. The hypotheses selected for study are straightforward and can be measured quantitatively. They are diverse enough in themselves to present the researcher with a challenging yet manageable problem. Rationale for the Study

Much commentary has been made in recent years concerning teacher effectiveness. Much has been written about qualities of "good" and "poor" teachers and the fact that one cannot be distinguished from the other. Biddle and Ellena (1964) in their book, Contemporary Research on Teacher Effectiveness, state: ". . . the problem of teacher effectiveness is so complex that no one today knows what the competent teacher is" (p. 2).

Most educators would probably agree that it is possible to have two teachers of equal intelligence, training, and grasp of subject matter who would differ greatly in results they achieve with students. What the difference is that distinguishes the successful teacher from the not-so-successful teacher seems to remain almost a mystery. That
intangible, undefined quality may well be the purpose of this study.
Smith and Geoffrey (1968) from whose text the hypotheses to be tested are taken say this:

We feel that such concepts as personalized interaction, pupil esteem, and clarification of learning barriers are important and largely unanalyzed concepts in the field, and that effort would well be spent in their clarification and extension (p. 20).

Major authors, such as Combs, Kelley, Maslow, Rogers and Longstreet, have for a number of years in their writings and research alluded to a quality of child-teacher interaction as an important variable influencing student learning.

It seems clear from experience and literature that educators must take steps to identify precisely those qualities possessed in "good" teachers that make them successful, be it one of artistry, one of scientific prowess, or some intangible, inherent quality known to exist in the "good" teacher but difficult to isolate and equally difficult to assess. Therefore, in this study an effort is made to extend the knowledge of what takes place between the classroom teacher and the learner, and what effect it may eventually have on the school achievement of the learner.

Purpose of the Study

The purpose of this study is to investigate quantitatively seven variables of personalized interaction in elementary school classrooms as qualitatively defined by Smith and Geoffrey in The Complexities of an Urban Classroom. They are as follows:

```
a. personalized interaction \(\left(\mathrm{H}_{2}, \mathrm{H}_{4}, \mathrm{H}_{5}, \mathrm{H}_{7}\right)\)
b. teacher liking of pupils ( \(\mathrm{H}_{2}\) )
c. pupil satisfaction \(\left(\mathrm{H}_{4}\right)\)
d. pupil esteem for the teacher \(\left(\mathrm{H}_{5}\right)\)
e. clarification of specific barriers to learning ( \(\mathrm{H}_{7}\) )
f. classroom control ( \(\mathrm{H}_{8}\) )
g. academic achievement ( \(\mathrm{H}_{10}\) )
```

    Statement of the Problem
    The basic theme of this study is to investigate if a significant relationship exists in the above seven variables. In this study, a relationship is significant if it exists at a . Ol level of probability.

Answers to the following questions are sought:
(1) Does teacher liking of pupils relate to the degree to which a teacher participates in personalized interaction?
(2) Does a teacher's "personalized interaction" relate to the degree of pupil satisfaction, pupil esteem for the teacher, and clarification of specific barriers to learning?
(3) Does pupil satisfaction relate to classroom control?
(4) Does pupil esteem for the teacher relate to classroom control?
(5) Does a teacher's clarification of specific barriers to learning relate to student achievement?

Basic Hypotheses

This study is proposed to examine the following hypotheses as defined by Smith and Geoffrey (1968).
(2) As teacher-liking of pupils increases, then the amount of personalized interaction increases.
(4) As amount of personalized interaction increases, then pupil satisfaction increases.
(5) As amount of personalized interaction increases, then pupil esteem for the teacher increases.
(7) As amount of personalized interaction increases, clarification of specific barriers to learning increases.
(8) As pupil satisfaction and esteem for the teacher increases, then classroom control increases.
(10) As clarification of specific barriers to learning increases, then academic achievement increases (pp. 18-19).

## Definition of Terms

For the purpose of this study the following definition of terms as proposed by Smith and Geoffrey (1968) will be used.

Academic achievement: (1) pupil learning; (2) degree to which classroom goals have been reached.

Barrier (specific to learning): An unknown activity lying between
the individual and his goal which prevents attainment of the goal.
Clarity: degree to which an element of individual personality or
group is perceived correctly.
Control: a type of interaction in which teacher directives elicit
pupil compliance.
Dyad: a two-person subgroup.
Esteem: a sentiment of positive regard for another person.
Goal: (1) group variable; (2) comparable to norm; (3) sentiment
regarding desirable ends of activity.
Hypothesis: (1) an untested proposition; (2) conjecture.
Learning: (1) the change in the probability of occurrence of a
response in a particular situation; (2) pupil change.
Liking children: (1) a dimension of teacher personality;
(2) attitude.
Personalized interaction: (1) a dyadic interaction between the
teacher and one pupil; (2) operationally a teacher or pupil
comment and a reaction of awareness on the part of the other.
Satisfaction: (1) a kind of sentiment; (2) an emotional reaction
indicating pleasure.
Teacher: a role in the school in which an individual tries to changethe learning of another, the pupil.
Teacher understanding: (1) intimate, specific, and organized knowledge
about pupils; (2) the translation of this knowledge into teachingproblems (pp. 263-268).
Limitations of the Study
The following limitations apply to this study:
(1) The sample was taken from three school districts located in arelatively small geographical area on the central coast ofCalifornia; thus generalizations to other areas and popula-tions cannot be made.(2) The Teacher Interview Scale, the Principal's Response Scale,the Pupil Survey Form, and the Classroom Control Analysis werenot validated for the purposes of this study.

Major Assumptions

For the purposes of the research study, the following assumptions have been applied:
(1) Verbal behavior is an integral part of personalized interaction.
(2) Nonverbal behavior is an integral part of personalized interaction.
(3) School principals are able to assess the degree to which a teacher uses personalized interaction.
(4) On a scale of personalized interaction, a group of teachers will maintain the same position relative to each other.
(5) Measurements obtained indicate differences between individuals rather than differences within individuals.
(6) Teachers who are more indirect in their verbal classroom activities are more highly "personalized."
(7) The investigator is competent in selecting a panel of experts to value "specific barriers to learning" responses made by the subjects.
(8) A standardized vocabulary test gave an acceptable indication of pupil's "academic achievement."

## Methodology and Design

The data for this study were obtained from the classrooms of teachers in grades $1,2,3,4,5$, and 6. These 36 teachers represent three school districts and 11 elementary schools on the central coast of California.

A pilot study was conducted at a school independent of those
included in the final study. It was used to train the research team and to test and polish the instrumentation involved in the study. Seven teachers were used in the pilot study. Reliability checks were made on the pupil survey form and the classroom control analysis. Interobserver reliability checks were made and correlations were run on the data collected. Pearson Product-Moment Correlation, Assumed Mean Zero, Machine Calculations were used to determine correlation coefficients. Significance of correlations were computed using $t$ values.

Three graduate students in education from California State Polytechnic University were selected and trained as observers, interviewers, and recorders. Interobserver reliability was checked several times by use of Scott's Coefficient.

Flanders' Interactional Analysis techniques were employed to gather verbal information. A principal's Response Scale was devised to gather information concerning each subjects personalized interaction, pupil esteem for the teacher, classroom control, and pupil satisfaction. Scales were prepared for measuring classroom control, pupil esteem for the teacher, pupil satisfaction, barriers to learning, and teacher liking of pupils.

Three observations per subject were conducted which amounted to one-and one-half hours of observation time per teacher. Eight hundred sixty-four students in the subjects classes responded to pupil surveys, while 360 pupils were randomly selected for the teacher interview scales.

All data collected were made ready for the computer and the postulated relationships analyzed by Pearson Froduct-Moment Correlation.

## Format for Succeeding Chapters

The report of this study consists of five chapters. The chapter just being completed serves as an introductory chapter describing the purposes of the study, the hypotheses to be tested and the theoretical foundations on which the study is based. Chapter II presents a review of related research and literature, while Chapter III presents the research metholdology used and instrumentation of the study. Chapter IV is a presentation of the statistical treatment and the analysis of data. Chapter $V$ is a summary of the study, including conclusions drawn from the findings, suggestions for further research, and theoretical considerations.

REVIEW OF SELECTED RESEARCH AND LITERATURE

The Early Years

Interactions between teachers and learners have been described
under a variety of labels since the 1920's. E. K. Wickman (1928)
published findings described in Children's Behaviors and Teachers'
Attitudes. He reported extensive research that had taken place between

1924 and 1928 in an attempt to analyze prevailing attitudes of teachers
toward behavior problems of children. Wickman stressed that

The importance of the social and emotional development of children is becoming recognized along with the need for their intellectual and physical training . . . . Education is turning serious attention to preparing the child for life (p. 1).

Wickman later concludes

```
        . . . that teachers reactions to the behavior problems
        of children are largely determined by the direct effect
        which the behavior produces on the teachers themselves.
        Insofar as the behavior attacks the teacher's moral
        sensitivities, personal integrity, authority, and
        immediate teaching purposes, it becomes recognized as
        a problem in behavior; insofar as behavior is agreeable
        to teachers, respects their authority, fits in with
        their teaching purposes as well as their ethical beliefs,
        it is considered desirable behavior (p. 181).
            Wickman hints at a concept of personalized interaction in relating
behavior problems of children to teacher attitudes and provides a final
chapter in which he proposes methods for re-education of teachers for
the purpose of altering attitudes.
```

Hart (1934) sought the opinions of 3,725 secondary school students. He reported that students seem to accept without much question a teacher's mastery of subject matter and that students indicated the difference between "liked" and "disliked" teachers was more a matter of personal style in communicating what they do know.
!
Teacher-Pupil Interaction

One of the earlier attempts to observe and make some identification of classroom behaviors which could be more accurately termed personalized came from John Withall (1949). Withall categorized seven behaviors which he then divided into three general classifications called "learner centered, teacher centered, and neutral." The teacher, when measured on Withall's scale became either learner-centered or teachercentered. Withall's seven categories are:
(1) Learner supportive statements
(2) Acceptance and clarifying statements
(3) Problem structuring statements
(4) Neutral statements
(5) Directive or hortative statements
(6) Reproving or deprecating remarks
(7) Teacher self-supporting remarks (pp. 347-361).

Withall's categorizations would appear to be the foundation for later interactional work by Amidon and Flanders. Flanders (1960) began to develop the forerunner of his now familiar 10 interaction categories, i.e.:
(l) talk by students in response to talk initiated by the teacher.
(2) talk by students initiated by the students themselves, etc.

Amidon and Hunter (1966) in their Verbal Interaction Category
System (VICS) distinguished between the sorts of questions teachers
may ask their pupils. Some questions were "narrow" in the sense the pupil response would be quite predictable while other questions were "broad" and described as more "thought-provoking or open-ended." This provided a system for categorizing teacher interaction.

Cogan (1963), an interactional analyst of some stature, states:

If one reads carefully the work that has been done by the men and women who are attempting to make sense of what teachers do in classrooms, one must ultimately conclude that the underlying weakness that permeates the whole endeavor is a weakness of the primary data the researchers are dealing with. Most of the data amounts are superficial, rootless verbalisms about the events of classrooms. The truth is that these data are so attenuated, they are so remote from sights, sounds, the smell, the feel, and the sense of the classroom that the reality escapes us. Whatever order we do find is thereby transmuted to something pallid, alien to the real events of the schoolroom. With all our questionnaires and our interviews and schemes for scoring classroom interaction, we are like mineralogists without specimens--our data have escaped us. Our slices and sections of reality are so thin and fragmentary that even when we first examine our specimens and our samples we are already miles removed from the phenomena we are dealing with-as though we had elected to study the moon by way of its reflection in a puddle of water (pp. 138-143).

Although Cogan seems intent upon an indictment of interactional analysis data gathering techniques, there have been great strides made in understanding classroom life in recent years, and interaction analysts according to Hargreaves (1972) have contributed greatly to this understanding. Hargreaves points out that

- . . where teachers and pupils are treated essentially as 'objects' observed from without, no account is taken of the meanings which participants give to their interactions. The assumptions and perspectives of the teachers and pupils, which are often covert and implicit, are not explored (p. 62).

Hargreaves' observations seem to point to the need for exploration
of the more subtle over-all teacher-pupil relationship as it is
experienced by the teacher and by the individual pupil.
While Hargreaves was compiling material for his text on Interpersonal Relations and Education, two major authors were publishing books about classroom life, utilizing like qualitative research techniques but differing tonal qualities.

Jackson's (1968) Life in Classrooms is, by his own interpretation "a melange." Jackson's descriptions of empirical studies are interestingly written with some author's perogative taken in mixing observed fact with "educated" speculation. Jackson notes that

Anyone who has ever taught knows the classroom is a busy place, even though it may not always appear so to the casual visitor. Indeed, recent data have proved surprising even to experienced teachers. For example, we have found in one study of elementary classrooms that the teacher engages in as many as 1000 interpersonal interchanges each day (p. 3).

Also in 1968, Smith and Geoffrey co-authored The Complexities of an Urban Classroom and published their study of the previous years. Smith and Geoffrey combined efforts to make an intensive analysis of a single elementary classroom. During this study the authors kept detailed records of the "happenings" in this classroom. From this qualitative study, Smith and Geoffrey drew 10 hypotheses of "personalized interaction". The testing of six of these hypotheseswere the topic of this study.

## Conclusion

Qualitative and quantitative research findings have led to much being written about the relationship that exists between teacher and learner and the effect that relationship has on learning. Styles of interaction have been referred to as "learner-centered" and "teacher-
centered", "directive" and "nondirective", "autocratic" and "democratic", yet it is still unverified or unverifiable that one teaching style will result in greater cognitive gain for the learner who is exposed to that style. However, when affective gains are considered, the results may be somewhat different.

When, for instance, classroom behavior, or pupil satisfaction with the learning process is considered, a search of the literature indicates that the more effective teachers reflect teaching patterns or styles which are flexible, use multiple approaches, are empathetic, are personalized, are willing to try new things, have appreciative attitudes, have a willingness to help, and possess an informal style of teaching. It still remains, much of what is considered as "good" teaching is speculative. Many diverse opinions exist as to what qualities teachers may possess that are unique to the more effective teacher. Thus, the thrust of this study is to isolate as nearly as possible a teaching style and to measure its effect on the learner.

## Introduction

This chapter is an explanation of the overall plan for management of the research, selection of subjects, instrumentation, and analysis of the data collected.

The Pilot Study

Due to the complex nature of this study, the need to train observers, and the necessity to refine the instruments devised for data collection, it was desirable to conduct a pilot study. The pilot study was conducted in an elementary school independent of those in the final sample. Those subjects studied were seven elementary teachers and 175 children. All phases described in the completed study were conducted in the pilot study with the exception of Hypothesis 10. Description of the Subjects

For the final study 36 elementary teachers from 11 schools, representing three school districts volunteered as subjects. The 36 subjects were teachers of grades 1, 2, 3, 4, 5, and 6. The three school districts involved are located on the central coast area of California, in and around the city of San Luis Obispo. Ten elementary school principals participated in the study. Responding to surveys were the 864 children
of the volunteer subjects classrooms. The subjects were informed only that a study of classroom interaction was being conducted. The subjects were privy to no other information concerning the study.

The population of the schools studied ranged from lower middle class to upper-middle class. The total population involved in the study was predominantly Caucasian.

## Instrumentation

To understand the instrumentation of the study, those variables being studied and their line of relationship should be clear.

The variables of "teacher liking of pupils" and clarification of "specific barriers to learning" were measured by conducting an interview with each subject. Ten students from each subject's class were selected randomly as topics for the two variables to be studied. The trained interviewers used an interview scale constructed by the investigator. The interview scale is listed as Teacher Interview Scale in Appendix A.
For the purpose of "masking" the study four questions were included on the interview scale not intended for statistical use.

## Teacher Liking of Pupils

The variable of "teacher liking of pupils" was measured by the values given_items 1, 3, and 5, of the Teacher Interview Scale. Each scale is a 7 -point scale with 7 indicating greatest liking for a pupil. Items were summed across to create a sub-total for each individual pupil. A grand total was compiled by summing the scores of the 10 randomized students and then drawing an arithmetic mean, thus creating a score for "teacher liking of pupils."

## Clarification of Specific Barriers to Learning

The variable of "clarification of specific barriers to learning" was also measured by the data collected using the Teacher Interview Scale as depicted in Appendix A. Item 8 was the vehicle used to collect this data.

From the 36 subjects 521 responses were received. Although many of these responses were similar in nature, many were "qualified" just enough to present the researcher with a significant problem. For


#### Abstract

example: Is a response of "family situation" the same as a response of "broken home", "family concept", or "natural parents divorced?" Considering the wide variety of responses the investigator eliminated only those actually duplicated responses. The final response list contained 490 items.

A panel of experts was acquired to value the "barriers to learning" responses. Included in this panel were a first grade teacher, a fourth grade teacher, a sixth grade teacher, a junior high teacher, an elementary school reading specialist, an elementary school language skills specialist, a school psychologist, and an associate superintendent of curriculum and instruction, and a college supervisor of student teachers.

This panel was asked to place a value on each response, using a 7-point scale, with 7 identifying responses of the greatest value and 1 identifying responses of the least value. The values assigned by the panel for each response were then summed and a mean drawn to place a value on each teacher response. The values of each teacher's responses were then summed and an arithmetic mean drawn. This mean score created a value for each subject's "specific barriers to learning."


## Personalized Interaction

Taking into consideration the definition given "personalized interaction" by the authors whose hypotheses are being tested, the investigator deemed it necessary to investigate not only verbal interaction, but nonverbal interaction of elementary classroom teachers.

Chosen for the investigation of verbal interaction was the Flanders (1970) Verbal Interaction Analysis Scale which is shown in Appendix B.
Chosen for the investigation of nonverbal characteristics of the subjects was Galloway's Analysis of Nonverbal Communication. Galloway (1968) developed two categories for nonverbal communication to further describe each of Flanders categories. The Galloway system is shown in Appendix $C$.
The investigator, in determining there was more to a teacher's "personalized interaction" than could be observed by the verbal and nonverbal means at hand, developed a Principal's Response Scale. The principals of schools where the subjects taught were given the operational definition of "personalized interaction" and asked to reply to a scale for each subject in their school. The Principal's Response Scale is shown in Appendix D. Items 1 through 6 were included in this portion of the investigation.
To determine the verbal and nonverbal characteristics of the subjects the previously mentioned three observers were trained in the use of the two interaction scales. The training took place during the pilot study. Each of the observers memorized the categories on the Flanders Interaction Scale and on the Galloway Scale. The likeness of the scales made this a relatively simple task.
Within the Flanders system every three seconds the observer indicates the category number of the interaction he has just observed. The companion Galloway method uses a similar recording system except the interaction recorded relates to nonverbal interactions. For the purpose of this study the observers were directed to write down the verbal designation and beside this recording indicate by either a minus (-) or no recording, the resultant nonverbal interaction taking place each three seconds. Using this recording procedure it was possible to
determine if for each verbal action that took place there was an "encouraging" (no marked response) or a "restricting" (-) nonverbal behavior accompanying the verbal interaction.

The three observers trained to observe and collect data for this study were credentialed teachers completing graduate work at California State Polytechnic University. Before completion of the pilot study, Scott's Coefficient for observer reliability was used to determine the degree of observer reliability in recording verbal and nonverbal information.

Scott's Coefficient is designated by "pi" and is determined by the use of Formula 1.

$$
\pi=\frac{P_{0}-P_{e}}{1-P_{e}}
$$

$P_{0}$ is the proportion of agreement between the observations made of the same teacher by different observers, and $P_{e}$ is the proportion of agreement expected by chance and is found by squaring the proportion of tallies in each category and summing the scores. This formula indicates the amount that the observers exceed chance agreement divided by the amount that perfect agreement exceeds chance (Flanders, 1966).

The three observers in this study spent between 20 and 30 minutes in the classroom recording verbal and nonverbal information, three separate times, for each subject in the pilot and the final study. At the end of the pilot study the observer reliability coefficient for these interactions were:

$$
\begin{aligned}
& 1 . \pi=.8787 \\
& 2 . \pi=.8701
\end{aligned}
$$

To arrive at a personalized interaction score for each subject, three scores were used. The Flanders Interaction Scale produces an I.D. Ratio between those verbal items labeled as "indirect influence" and those items labeled as "direct influence". The formula is

$$
\text { Indirect }(1-4) \div \text { Indirect }(1-4)+\text { Direct }(5-7)
$$

Each observation per subject produced a yield of 3 matrices (one per observer). Each subject was observed 3 times with a total yield of 9 matrices per subject. The 9 matrices were combined creating a verbal ratio score for personalized interaction.

The Galloway nonverbal interaction system was computed on the matrix with the verbal scores. A ratio score for nonverbal interaction was drawn by computing the number of "restricting" behaviors noted as compared to the number of "encouraging" behaviors noted. The nonverbal ratio was computed in much the same way as the verbal ratio. The formula used is

## encouraging nonverbal interaction total nonverbal interaction

The Principal's Response Scale, Appendix D was the third score calculated to identify personalized interaction. Each principal of a subject was asked to respond to the scale. The first six items on the scale related to personalized interaction. These scores were summed across the seven-point scale and a total score was acquired. Here too, a ratio score was drawn by using the following formula

A total personalized interaction score was achieved by summing the three ratio scores per teacher and drawing an arithmetic mean. This method gave equal weight to the verbal scale, the nonverbal scale, and the Principal's scale in determining degree of personalized interaction per subject.

## Pupil Survey

The variables of pupil satisfaction and pupil esteem for the teacher were measured by a pupil survey instrument constructed by the investigator. A seven-point scale was used for this purpose. Devising a common scale for children in grades one through six took special care. Children were asked to put an X in a square somewhere between "good" and "bad" depending on how they felt about the object named above that row of squares. Items 1, 2, and 3 were included on the survey to provide practice items on the scale. Items 5, 8, 12 , and 14 were not used in the study.

Test-retest reliability for items 4, 6, 7, 9, 10, 11, 13, and 15 of the pupil survey instrument was checked by retesting three grade levels during the pilot study. With a four-week interval between testings, the pupil survey was re-administered to a 1 st, 4 th, and 6 th grade class. The statistical method used was the Pearson ProductMoment Correlation. Assumed Mean Zero, Machine Calculation formula (Koenker, 1974).

The test-retest coefficients were:

1. First Grade, $\quad \mathbf{r}=.84$
2. Fourth Grade, $\mathbf{r}=.75$
3. Sixth Grade, $\quad \mathbf{r}=.86$

## Pupil Satisfaction

Items $4,6,7,9,10,13$, and 15 were summed across and added for each child. The total class responses were then added and a mean computed. Assuming the principal has an overall insight into the general satisfaction of pupils assigned to a specific teacher, Item 9 of the Principal's Response Scale was given equal weight and an average score for pupil satisfaction achieved.

Pupil Esteem for the Teacher

Scores of items 11 of the Pupil Survey and 8 of the Principal's Response Scale were summed and averaged to establish a pupil esteem score for each subject.

## Classroom Control

To determine the classroom control of the various subjects the investigator devised a "Classroom Control Analysis" scale to be used by the observers. During the pilot study the observers were trained in the use of this instrument and several inter-observer reliability checks were made using Scott's Coefficient. The resulfant reliability coefficients achieved were:

1. $\pi=.8283$
2. $\pi=.8888$
3. $\pi=.9428$

To determine a classroom control score, each observer completed an analysis after each observation of a subject. A total of nine classroom control analyses were obtained. The scores were summed and an arithmetic mean was drawn. Assuming the principal would have a more


#### Abstract

complete overview of a teacher's total classroom control, item 12 of the Principal's Response Scale was given equal weight and an average obtained between the scales. This average became the score for each subject's classroom control.


## Academic Achievement

In the interest of time and demands on the subjects, the vocabulary portion of the Gates-MacGinitie Reading Test (Gates, 1965) was selected for the purpose of assessing academic achievement of the subject's classes. The Gates-MacGinitie Reading Tests were normed nationwide on more than 25,000 pupils. The test yields a grade equivalent score, a standard score, and a percentile score. For the purpose of this study the percentile score was used so that achievement might be equated between grade levels. The test was simple to administer and took between 15 and 20 minutes per class. The subjects themselves administered these tests.

The investigator scored the 838 tests. An average percentile vocabulary score was computed for each subject. This score represented the academic achievement score for each subject. One subject chose not to participate in this portion of the study.

## Statistical Treatment

The variables of this study were analyzed by use of Pearson Product Moment Correlation. This method of correlation is to be used when the two variables are continuous and the relationship is assumed to be rectilinear. In general practice it is not advisable to calculate a correlation with less than 30 cases (Koenker, 1974).
All data were collected, made computer-ready and correlations were run using the Pearson Product Moment Correlation, Assumed Mean Zero, Machine Calculation formula.

## CHAPTER IV

## ANALYSIS AND TREATMENT OF DATA


#### Abstract

This chapter will present the results of the data obtained for this study as described in Chapter III. For clarity, each hypothesis tested will be restated prior to the presentations of resultant correlations.

Data Analysis


For a correlation to be considered as showing a real or significant relationship the . Ol level of probability should be satisfied. According to Koenker (1974) if the t-value lies between the .Ol level of probability and the . 05 level of probability it remains in doubt as to whether or not the relationship is significant. The . 01 level of confidence is that which will be considered acceptable for the testing of the hypotheses in this study; however, each t-value will be reported so the reader may compare the relative values of the correlations reported.

Hypotheses Testing

The hypotheses reported here are numbered as reported in Chapter III and in The Complexities of an Urban Classroom. The variables in each hypothesis have been underlined.

## Hypothesis 2

As teacher liking of pupils increases, then the amount of personalized interaction increases
correlation coefficient ..... 0.27
computed t-value ..... 1.67
level of significance .....  2
The variables of "teacher liking of pupils" and "personalizedinteraction" as stated in $\mathrm{H}_{2}$, and as tested in this study cannot beconsidered as having a significant relationship.
Hypothesis 4
As amount of personalized interaction increases, then pupil
satisfaction increases
correlation coefficient ..... 0.56
computed t-value ..... 3.95
level of significance .....  001
The variables of "personalized interaction" and "pupil satisfaction"
as stated in $\mathrm{H}_{4}$, and as tested in this study can be considered as havinga significant relationship.
Hypothesis 5
As amount of personalized interaction increases, then pupil
esteem for the teacher increases.
correlation coefficient ..... 0.65
computed t-value ..... 4.93
level of significance ..... 001


#### Abstract

The variables of "personalized interaction" and "pupil esteem" as stated in $\mathrm{H}_{5}$, and as tested in this study can be considered as having a significant relationship.


## Hypothesis 7

As the amount of personalized interaction increases, clarification
of specific barriers to learning increases.
correlation coefficient 0.11
computed t-value 0.62
level of significance . 6
The variables of "personalized interaction" and "clarification of specific barriers to learning" as stated in $H_{7}$, and as tested in this study cannot be considered as having a significant relationship.

## Hypothesis 8

As pupil satisfaction and esteem for the teacher increase, then classroom control increases.

The above hypothesis is mique in that it has three variables to be tested, therefore, they will be reported separately.
pupil satisfaction--classroom control correlation coefficient 0.63 computed t-value 4.71
level of significance .OO1

The variables of "pupil satisfaction" and "classroom control" as stated in $\mathrm{H}_{8}$, and as tested in this study can be considered as having a significant relationship.
pupil esteem--classroom control
correlation coefficient ..... 0.51
computed t-value ..... 3.50
level of significance ..... 01
The variables of "pupil esteem" and "classroom control" as stated
in $H_{8}$, and as tested in this study can be considered as having asignificant relationship.
pupil satisfaction and esteem--classroom control
Since the variables of pupil satisfaction and classroom control and
the variables of pupil esteem and classroom control show a significantrelationship it could be assumed a combined satisfaction and esteemvariable would produce a significant relationship also. To verifythis, the variables of esteem and satisfaction were combined and cor-
related.
correlation coefficient ..... 0.64
computed t-value ..... 4.92
level of significance .....  001
The combined variables of "esteem" and "satisfaction" as relatedto the variable of "classroom control" as stated in $H_{8}$, and as testedfor this study can be considered as having a significant relationship.
Hypothesis 10
As clarification of specific barriers to learning increases,
then academic achievement increases.
correlation coefficient ..... $-0.40$
computed t-value ..... $-2.53$
level of significance ..... 02

```
The variables of "specific barriers to learning" and "academic achievement" as stated in \(\mathrm{H}_{10}\), and as tested in this study cannot be considered to have a significant relationship.
```


## Summary

The data in Table $I$ reflect more graphically the relationships between the variables and their significance. Table II is a display of the scores achieved by the subjects on the variables tested.

In Chapter $V$ the investigator will explore the research and results of this study in greater depth.

CORRELATION COEFFICIENTS AND LEVELS OF SIGNIFICANCE FOR VARIABLES OF PERSONALIZED INTERACTION


NUMERICAL VALUES OF TEACHER LIKING OF PUPILS, PERSONALIZED INTERACTION, PUPIL SATISFACTION, PUPIL ESTEEM, PUPIL SATISFACTION AND ESTEEM, CLARIFICATION OF SPECIFIC BARRIERS TO LEARNING, CLASSROOM CONTROL AND ACADEMIC ACHIEVEMENT

| Subject | TLP | PI | PS | PE | PSE | CSBL | CC | AA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | 5.70 | . 74 | 5.70 | 6.50 | 6.10 | 3.92 | 5.43 | . 61 |
| 02 | 5.70 | . 68 | 5.24 | 5.36 | 5.30 | 4.77 | 4.72 | . 50 |
| 03 | 5.97 | . 62 | 4.07 | 4.87 | 4.47 | 4.17 | 4.12 | . 62 |
| 04 | 6.17 | . 78 | 5.17 | 5.50 | 5.34 | 3.61 | 5.97 | . 59 |
| 05 | 5.27 | . 71 | 5.35 | 5.35 | 5.35 | 3.56 | 5.37 | . 75 |
| 06 | 5.40 | . 64 | 4.15 | 4.54 | 4.35 | 3.92 | 3.94 | . 53 |
| 07 | 5.37 | . 63 | 4.48 | 4.59 | 4.54 | 3.82 | 4.33 | . 63 |
| 08 | 5.87 | . 78 | 4.92 | 5.42 | 5.17 | 3.70 | 6.01 | . 63 |
| 09 | 6.23 | . 67 | 5.24 | 5.93 | 5.59 | 3.60 | 5.39 | . 76 |
| 10 | 5.97 | . 65 | 5.87 | 5.95 | 5.91 | 3.55 | 5.35 | . 56 |
| 11 | 6.30 | . 76 | 5.90 | 6.86 | 6.38 | 4.37 | 5.60 | . 72 |
| 12 | 6.33 | . 80 | 5.83 | 6.36 | 6.01 | 3.63 | 6.52 | . 75 |
| 13 | 5.03 | . 57 | 4.48 | 3.96 | 4.22 | 3.51 | 2.34 | . 74 |
| 14 | 5.40 | . 72 | 5.49 | 6.04 | 5.77 | 3.57 | 4.40 | . 73 |
| 15 | 5.53 | . 67 | 5.27 | 5.53 | 5.40 | 3.92 | 4.67 | . 45 |
| 16 | 5.56 | . 70 | 5.75 | 6.09 | 5.92 | 3.59 | 5.27 | . 55 |
| 17 | 5.33 | . 75 | 3.82 | 4.60 | 4.21 | 2.87 | 3.52 | . 73 |
| 18 | 5.93 | . 84 | 5.57 | 6.91 | 6.24 | 3.67 | 7.00 | . 86 |
| 19. | 6.13 | . 72 | 5.59 | 6.66 | 6.13 | 3.67 | 6.20 | . 56 |
| 20 | 5.87 | . 63 | 4.74 | 4.76 | 4.75 | . 3.82 | 4.62 | . 59 |
| 21 | 5.67 | . 80 | 6.38 | 6.28 | 6.33 | 4.37 | 5.97 | . 54 |
| 22 | 5.63 | . 84 | 5.33 | 5.86 | 5.60 | 4.17 | 5.74 | . 59 |
| 23 | 5.87 | . 72 | 5.86 | 6.19 | 6.03 | 3.75 | 4.72 | . 75 |
| 24 | 5.67 | . 68 | 4.65 | 6.79 | 5.72 | 3.52 | 4.30 | . 52 |
| 25 | 5.63 | . 67 | 5.33 | 6.50 | 5.92 | 3.41 | 2.72 | . 78 |
| 26 | 5.87 | . 59 | 3.94 | 4.37 | 4.16 | 3.35 | 4.15 | . 70 |

TABLE II (Continued)

| Subject | TLP | PI | PS | PE | PSE | CSBL | CC | AA |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 27 | 5.93 | .63 | 4.95 | 4.75 | 4.85 | 3.73 | 4.38 | .55 |
| 28 | 5.43 | .66 | 5.49 | 6.36 | 5.93 | 3.76 | 5.99 | .88 |
| 29 | 6.57 | .68 | 5.38 | 5.68 | 5.53 | 4.01 | 4.43 | .62 |
| 30 | 5.90 | .70 | 5.50 | 5.98 | 5.74 | 4.57 | 5.15 | .51 |
| 31 | 6.03 | .76 | 5.61 | 6.84 | 6.23 | 4.14 | 6.27 | .64 |
| 32 | 5.23 | .64 | 4.57 | 4.98 | 4.78 | 4.59 | 5.00 | .59 |
| 33 | 5.47 | .73 | 5.13 | 5.95 | 5.54 | 4.09 | 6.04 | .49 |
| 34 | 5.83 | .63 | 4.77 | 5.14 | 4.96 | 3.87 | 3.44 | .-- |
| 35 | 5.83 | .75 | 5.83 | 5.86 | 5.85 | 4.30 | 6.88 | .71 |
| 36 | 6.00 | .71 | 5.76 | 6.20 | 5.98 | 4.16 | 5.92 | .67 |

## CHAPTER V

## CONCLUSIONS, THEORETICAL CONSIDERATIONS, RECOMMENDATIONS, AND SUMMARY


#### Abstract

This study was designed to investigate quantitatively the seven variables of personalized interaction in elementary school classrooms as defined by Smith and Geoffrey (1968). These interactions are described by the variables of teacher liking of pupils, personalized interaction, pupil satisfaction, pupil esteem for the teacher, clarification of specific barriers to learning, classroom control and academic achievement.


## Conclusions

The findings of this study led to the following conclusions:
(2) Teacher liking of pupils has little or no effect on the level of personalized interaction displayed by the teacher.
(4) The higher the level of a teacher's personalized interaction, the greater the satisfaction of his/her pupils.
(5) Pupils hold in higher esteem teachers who practice a greater level of personalized interaction.
(7) Teachers who are highly personalized are not necessarily more knowledgeable about barriers children may have to learning than teachers who are less personalized.
(8) Classroom control is greater when pupil satisfaction is high.
a. Classroom control is less of a problem when pupil esteem for the teacher is high.
b. Classroom control is less of a problem when both pupil
satisfaction and pupil esteem for the teacher are high.
(10) A teacher's knowledge of barriers to learning for specific children, has no bearing on the academic achievement of children in that teacher's classroom.

The conclusions made by the investigator concerning the six hypotheses tested are based on correlation coefficients resulting from the seven variables tested. The statistical method used was the Pearson Product-Moment Correlation (Koenker, 1974). The .O1 level of confidence was selected for significance in the statistical analysis of this study.

Theoretical Considerations

The implications for teachers and teachers in training suggested by the results of this study are both implicit and speculatory.

## Classroom Control

Of all the many learned skills and/or innate factors that go into the making of the "good" or "successful" teacher, discipline has traditionally been a variable to seemingly "make or break" the classroom teacher. If asked, the predominance of first-year teachers would respond that the most critical problems to be faced are disciplinecentered (Fantini, 1968).

Currently, discipline within the public school system has been identified as the number-one concern of the public. For two consecutive years a Gallup Poll on educational issues has reported the 10 major concerns of the public sampled. The number one concern each year has been that of discipline (Phi Delta Kappan, October, 1976).

Current laws, as well as common decency, encourage teachers to humanize classrooms. The practice of using corporal punishment or the threat of physical abuse to control classrooms has become unacceptable. Compounding this problem is the fact children are less threatened by adults in general, including teachers. Children are encouraged, it seems, to speak out and to question adult authority, they generally have less respect for teachers, the school, and public property.

The unacceptability of physical control and the freedom with which children challenge the authority of teachers and the school are diametrically opposed. Teachers and school systems must find acceptable methods of implementing control of the classroom, if successful instruction of children is to take place in those classrooms.

The significance of the results obtained when the variable of classroom control was correlated with those of pupil satisfaction (.OO1) and pupil esteem for the teacher (.Ol) may well be indicative of an approach to classroom control emanating from an interaction between pupil and teacher. This interaction, for the purposes of this study, has been termed as personalized.

Personalized interaction correlated significantly with pupil satisfaction (.56) and pupil esteem (.65). The direct line of relationship between these variables to that of classroom control indicates the teacher who practices a higher level of personalized interaction reaps
the reward of greater classroom control.

## Teacher Liking of Pupils

It is many times assumed that a teacher who displays a liking of pupils also displays significant tendencies toward being personalized. The results of this study indicate that a teacher's liking of pupils has little to do with the teacher's level of personalized interaction. The fact these variables are not highly correlated lead the investigator to the following propositions:
(1) a teacher who displays a great liking of pupils does not necessarily have pupils who are more satisfied.
(2) a teacher who displays a great liking of pupils may in turn have pupils who do not necessarily hold that teacher in high esteem.
(3) pupils, as people, may be more discerning than given credit for, and may distinguish between a "real" liking for them on the part of the teacher, and a superficial liking.

Fantini (1968), in describing new teachers imbued with an "understanding" of the child, his "needs" and a "non-authoritorian" role as a teacher, states that

All they have to do is walk into the classroom, demonstrate how 'friendly' and 'understanding' they are, and let pupils know that from now on they will be like no other teacher they ever had before . . . they are going to be 'buddies'. What happens then is traumatic . . . (p. 306).

As residual information the variable of teacher liking of pupils was correlated with the variables of pupil esteem and pupil satisfaction. This correlation circumvented the intervening variable of personaliz
interaction, and compared the direct line of relationship. Teacher liking of pupils and pupil esteem produced a correlation coefficient of .37 and was significant at the . 05 level of probability. Teacher liking of pupils and pupil satisfaction produced a correlation coefficient of .36 and was also found significant at only the . 05 level of probability. The above three propositions identified by the investigator may well be born out by the relatively insignificant correlation coefficients acquired. In each case it is reasonable to assume liking of pupils should have some effect on pupil esteem for the teacher and pupil satisfaction. The variable of teacher liking when compared to the variable of classroom control produces a correlation coefficient of . 40 and is significant at the . $O 2$ level of probability. The coefficient of determination is .16. Again, this resultant statistic leaves much to chance, and is not great enough to be of practical significance.

Another statistical procedure applied here is one that assists in the interpretation of the reliability coefficient. Kerlinger (1973) interprets:

If $r$, the coefficient of correlation, is squared, it becomes a coefficient of determination, that is, it gives us the proportion of percentage of the variance shared by two variables (p. 451).

If the coefficient of determination is used to more graphically describe the percent of total variance between variables, those variables so far discussed become somewhat clearer in their relationship. For example, the significant relationship of personalized interaction and pupil satisfaction have an $r$ factor of .56 , therefore, $r^{2}=.31$ indicating that 31 percent of the time those variables studied vary in common. When teacher liking of pupils is correlated with pupil
satisfaction the $r$ value is . 36 and $r^{2}=.13$, providing a total variance of 13 percent between those two variables.

Table III depicts those variables, their correlation coefficients $(r)$ and their coefficient of determination $\left(r^{2}\right)$.

It can be assumed that teacher liking for pupils has influence on pupil satisfaction and esteem for the teacher, but by comparison and evaluation of $r^{2}$ this possible percentage of influence is quite low thus further supporting the proposition that a teacher's liking for pupils may have little or no influence on pupil esteem for the teacher and pupil satisfaction.

## Barriers to Learning

Within the limits of this study there was little or no relationship between teachers who ranked high in personalized interaction and the knowledge they possessed concerning specific barriers to learning. In seeking residual information, the investigator also found little or no relationship between teacher liking of pupils and specific barriers to learning (Table III).

These findings lead the investigator to the following propositions:
(1) A teacher's personalized interaction level is not
a factor that influences his/her knowledge of specific barriers to learning.
(2) A teacher's liking of pupils is not a factor that influences his/her knowledge of specific barriers to learning.

TABLE III
4
CORRELATION COEFFICIENTS AND COEFFICIENTS OF DETERMINATION

|  |  | r | $r^{2}$ |
| :---: | :---: | :---: | :---: |
| Teacher Liking of Pupils - | Pupil Satisfaction | . 36 | . 13 |
|  | Pupil Esteem for Teacher | . 37 | . 14 |
|  | Classroom Control | . 40 | . 14 |
|  | Personalized Interaction | . 27 | . 07 |
|  | Clarification of Barriers | . 13 | . 02 |
|  | Academic Achievement | . 02 | . 00 |
| Personalized Interaction | Pupil Satisfaction | .56 | . 31 |
|  | Pupil Esteem for teacher | . 65 | . 42 |
|  | Clarification of Barriers | . 11 | . 01 |
|  | Academic Achievement | . 14 | . 02 |
| Classroom Control | Pupil Esteem for teacher | . 51 | . 26 |
|  | Pupil Satisfaction | . 62 | . 38 |
|  | Pupil Satisfaction and Esteem | . 64 | . 41 |
| Classification of Barriers- | Academic Achievement | -. 40 | . 16 |

(3) The instrument or method used to measure specific barriers to learning was inadequate for this purpose.

## Academic Achievement

When specific barriers to learning was correlated with academic achievement as stated in $H_{10}$ the resultant correlation coefficient was a -. 40. This negative correlation led the investigator to explore the relationships of teacher liking of pupils to academic achievement and personalized interaction to academic achievement. These more direct relationships circumvented the variable of specific barriers
to learning. The results are shown in Table III. These results were almost nil, but were not negative in relationship.

Within the confines of this study the findings lead the investigator to the following propositions:
(1) A significant relationship does not exist between a teacher's personalized interaction level and that teacher's knowledge of specific barriers to learning.
(2) A significantrelationship does not exist between a teacher's personalized interaction level and academic achievement for his/her pupils.
(3) A significant relationship does not exist between teacher liking of pupils and teacher knowledge of specific barriers to learning.
(4) A significant relationship does not exist between teacher liking of pupils and academic achievement for his/her pupils.
(5) A significant relationship does not exist between a teacher's knowledge of specific barriers to learning and academic achievement for his/her pupils.
(6) The instrument or method used to test specific barriers to learning was inadequate for that purpose.

Recommendations

The following recommendations are suggested by the investigator:
(1) It is recommended this study be replicated. The sampling was geographically confined to a relatively small area on the central coast of California. A larger sample in another geographical location
would be most beneficial in verifying the data of the research and the instrumentation.
(2) Also recommended is that another instrument or method be devised to measure teacher knowledge of barriers to learning. Perhaps a method other than the one selected for valuing teacher responses should be considered for the barriers to learning instrument.
(3) The variable of academic achievement should be measured on a pretest--posttest basis for each subject studied. This technique would allow for an "increase" of academic achievement to be measured for each subject. This increase should then be measured against the variables of personalized interaction and barriers to learning. The investigator feels this method would help alleviate the between school problems existing in this study, i.e., socio-economic differences which may have had significant influence on the measure of academic achievement for this study.
(4) The study would be strengthened if all the instruments used we were validated.

## Summary

This investigation of the seven variables of personalized interaction, as postulated by Smith and Geoffrey (1968), has led this investigator to many hours of thought-provoking research. The study has shown that quantitative data can be applied to theories resulting from qualitative research.

The results, as reported in this study, interestingly lead the researcher to the previously stated propositions which when reduced to the terms of Bloom can be classified within the Cognitive and Affective Domains.
would be most beneficial in verifying the data of the research and the instrumentation.
(2) Also recommended is that another instrument or method be devised to measure teacher knowledge of barriers to learning. Perhaps a method other than the one selected for valuing teacher responses should be considered for the barriers to learning instrument.
(3) The variable of academic achievement should be measured on a pretest--posttest basis for each subject studied. This technique would allow for an "increase" of academic achievement to be measured for each subject. This increase should then be measured against the variables of personalized interaction and barriers to learning. The investigator feels this method would help alleviate the between school problems existing in this study, i.e., socio-economic differences which may have had significant influence on the measure of academic achievement for this study.

## Summary

This investigation of the seven variables of personalized interaction, as postulated by Smith and Geoffrey (1968), have led this investigator to many hours of thought-provoking research. The study has shown that quantitative data can be applied to theories resulting from qualitative research.

The results, as reported in this study, interestingly lead the researcher to the previously stated propositions which when reduced to the terms of Bloom can be classified within the Cognitive and Affective Domains.

The quality or level of personalized interaction possessed by a teacher has little or no measurable effect upon those areas relating to the cognitive domain. For the purposes of this study, they were labeled as clarification of barriers to learning and academic achievement.

When a teacher's level of personalized interaction is "high" this interaction has profound effect upon those variables relating to the affective domain. For the purposes of this study they were labeled as pupil satisfaction, pupil esteem, and classroom control. As displayed by the results of this study, the stimulus of a higher degree of personalized interaction on the part of the teacher can result in a reaction of a higher degree of pupil satisfaction, pupil esteem for the teacher, and classroom control.

## A SELECTED BIBLIOGRAPHY

Amidon, E. J., and E. Hunter. "Verbal Interaction in the Classroom." The Verbal Interaction Category System. Ed. Amidon and Hough. New York: Holt, Rinehart and Winston, 1966, pp. 136-173.

Amidon, Edmund J., and Ned A. Flanders. The Role of the Teacher in the Classroom. Minneapolis: Association for Productive Teaching, Inc., 1967.

Amidon, Edmund J. "Interactional Analysis." Theory Into Practice, VII (December, 1968), pp. 159-167.

Barr, A. S. Characteristic Differences in the Teaching Performance of Good and Poor Teachers of the Social Studies. Ill.: The Public School Publishing Company, 1929.

Biddle, B. V., and W. J. Ellena. Contemporary Research on Teacher Effectiveness. New York: Holt, Rinehart, and Winston, 1964.

Blommers, Paul, and E. F. Lindquist. Elementary Statistical Methods in Psychology and Education. Boston: Houghton Mifflin Company, 1960.

Bousfield. "Student's Rating on Qualities Considered Desirable in College Professors." School and Society, Vol. 51 (February 24, 1940), pp. 253-256.

Bradley, Ruth and Associates, Comm. on IOTA. Measuring Teacher Competence: Research Backgrounds and Current Practice. San Jose, California: Spartan Book Store, 1963.

Cogan, M. L. "Research on the Behavior of Teachers: A New Phase." Journal of Teacher Educasion, Vol. 14 (1963), pp. 138-143.

Cogan, M. L. "The Behavior of Teachers and the Productive Behavior of Their Pupils." Journal of Experimental Education, Vol. 27 (December, 1958), pp. 89-105).

Combs, A. W. The Professional Education of Teachers. Boston: Allyn and Bacon, 1965.

Dunning, G. B. "Research in Nonverbal Communication." Theory Into Practice, Vol. IX (October, 1971), pp. 250-258.

Fantini, Mario D., and Gerald Weinstein. The Disadvantaged. New York: Harper and Rowe, Publishers, 1968.

Flanders, N. 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.

Flanders, N. A. Teacher Influence, Pupil Attitudes and Achievement Studies in Interactional Analysis. University of Minnesota, U. S. Office of Education Cooperative Research Project No. 397, 1960.

Galloway, Charles M. "The Nonverbal Realities of Classroom Life." Observational Methods in the Classroom. Ed. Charles W. Beegle and Richard M. Brandt. Washington, D.C.: Association for Supervision and Curriculum Development, 1973.

Galloway, Charles M. "Teacher Nonverbal Communication." Educational Leadership, XXIV (October, 1966), pp. 55-66.

Gallup, George H. "Eighth Annual Gallup Poll of the Public's Attitudes Toward the Public Schools." Phi Delta Kappan, Vol. 58, No. 2 (October, 1976), pp. 187-200.

Gates, Arthur I., and Walter H. MacGinitie. "Gates-MacGinitie Reading Tests." Technical Manual. New York: Teachers College, Columbia University, 1965.

Glasser, William. Schools Without Failure. New York: Harper and Rowe, Publishers, 1969 .

Hargreaves, D. H. Interpersonal Relations and Education. Boston, Mass.: Routledge and Kegan Paul, 1972.

Harris, B. M. Supervisory Behavior in Education. Englewood Cliffs, N. J.: Prentice-Hall, 1963.

Hart, W. F. Teachers and Teaching. New York: Macmillan and Co., 1934.
Heil, L. M., M. Powell, and I. Fiefer. Characteristics of Teacher Behavior Related to the Achievement of Children in Several Elementary Grades. Washington, D.C.: Office of Education, Cooperative Research Branch, 1960.

Jackson, P. W. Life in Classrooms. New York: Holt, Rinehart and Winston, 1968.

Jenks, C. L. "Planning Precedes Evaluation." Thrust for Educational Leadership. Association of California School Administrators, (October, 1972, 2), pp. 14-16.

Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1973.

Knapp, Mark L. "The Role of Nonverbal Communication in the Classroom." Theory Into Practice, Vol. X, No. 4 (October, 1971), pp. 243-249.

Koenker, Robert H. Simplified Statistics for Students in Education and Psychology. Tatowa, New Jersey: Littlefield, Adams and Co., 1974.

Lucio, W. H., and J. D. McNeil. A Synthesis of Thought and Action. New York: McGraw-Hill, 1962.

Nelson, Lois. "Teacher Leadership: An Empirical Approach to Analyzing Teacher Behavior in the Classroom." Classroom Interaction Newsletter (November, 1966).

Sax, Gilbert. Empirical Foundations of Educational Research. New Jersey: Prentice-Hall, Inc., 1968.

Smith, L. M., and W. Geoffrey. The Complexities of an Urban Classroom: An Analysis Toward a General Theory of Teaching. New York: Holt, Rinehart and Winston, 1968.

Thornsley, J. R. "Recognition and Respect for Teacher Competency." Thrust for Educational Leadership. Association of California School Administrators (Nov., 1972, 2), pp. 23-26.

Tuckman, Bruce W. Conducting Educational Research. New York: Harcourt Brace Jonanovich, Inc., 1972.

Wert, James E., and Charles O. Neidt. Statistical Methods in Educational and Psychological Research. New York: Appleton-CenturyCrofts, Inc., 1954.

Wickman, E. J. Children's Behavior and Teachers' Attitudes. Boston: Commonwealth Fund, 1928.

Withall, J. "The Development of a Technique for the Measurement of Social-emotional Climates in Classrooms." Journal of Experimental Education, Vol. 17 (1949), pp. 347-61.

APPENDIX A

TEACHER INTERVIEW SCALE

## Teacher Interview Scale

Teacher

Child

Grade

All information on this scale is to be treated with the utmost confidentiality. All persons involved and all responses made will be anonymous.

1. Would you rate $\qquad$ 's personality as:

Excellent
Poor
Very good
Very Poor
Good
Lousy

* No response (do not give this choice verbally)

2. How would you rate $\qquad$ 's chance of success in the future?
Excellent Poor

Very good Very poor
Good
Lousy
3. As a person how would you rate

Excellent Poor
Very good Very poor
Good Lousy
*No response
4. In my opinion $\qquad$ 's peers like him/her.

A great deal
Very much
Some
*No response
5. I, as a person, like $\qquad$

A great deal
Very much
Some

A little bit
Not much
Not at all
*No response
6. How do you rate $\qquad$ 's achievement in:
Reading:

> Above average
> Average
> Below average
Math:
Above average
Average
Below average
Language: Above average
Average
Below average

## 7. How do you rate <br> $\qquad$ 's innate ability to succeed in

 school:
## Above average <br> Average <br> Below average

8. All students seem to have some specific barriers to learning. (An unknown activity lying between the individual and his/her goal which prevents attainment of the goal.)
Will you please identify for me as many barriers to learning as you can for
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
(9) $\qquad$
(10)

APPENDIX B

FLANDERS VERBAL INTERACTION ANALYSIS SCALE

1. Accepts Feeling: accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting and. recalling feelings are included.
2. Praises or Encourages: praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying

| Teacher | Indirect <br> Influ- <br> ence | another individual, nodding head or saying "uhhuh?" or "go on" are included. <br> 3. Accepts or Uses Ideas of Student: clarifying, building, or developing ideas or suggestions by a student. As teacher brings more of his own ideas into play, shift to category five. <br> 4. Asks Questions: asking a question about content or procedure with the intent that a student answer. |
| :---: | :---: | :---: |
| Talk | Direct <br> Influ- <br> ence | 5. Lecturing: giving facts or opinions about content or procedure; expressing his own idea; asking rhetorical questions. <br> 6. Giving Directions: directions, commands, or orders with which a student is expected to comply. <br> 7. Criticizing or Justifying Authority: statements intended to change student behavior from nonacceptable to acceptable pattern; bawling someout out; stating why the teacher is doing what he is doing; extreme selfreference. |
| Student <br> Talk | , | 8. Student Talk-Response: talk by students in response to teacher. Teacher initiates the contact or solicits student statement. <br> 9. Student Talk-Initiation: talk by students, which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category. |


| 10.Silence or Confusion: pauses, <br> short periods of silence, and <br> periods of confusion in which <br> communication cannot be understood <br> by the observer |
| :--- |

## APPENDIX C <br> THE GALLOWAY ANALYSIS OF NONVERBAL COMMUNICATION

Encouraging. Accepts the feeling tone of the students and their right to have these feelings.

Restricting. Does not accept the feeling tone of the students or their right to have these feelings.

Congruent. Nonverbal cues reinforce and further clarify the credibility of a verbal message.

Incongruent. Contradiction occurs between verbal and nonverbal cues.

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 consi feration.

Perfunctory. Perfunctory use occurs when the teacher merely recognizes or acknowledges student's idea by automatically repeating or restating it.

Personal. Face-to-face confrontation.
Impersonal. Avoidance of verbal interchange in which mutual glances are exchanged.

Responsive. Change in teacher's pace or direction of talk in response to student behavior, i.e., bored, disinterested, or inattentive.

Unresponsive. Inability or unwillingness to alter the pace or direction of lecture disregarding pupil cues.

Involve. Students are involved in a clarification or maintenance or learning tasks.

Dismiss. Teacher dismisses or controls student behavior.

Firm. Criticisms which evaluate a situation cleanly and crisply and clarify expectations for the situation.

Harsh. Criticisms which are hostile, severe, and often denote aggressive or defensive behavior.
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.
Comfort. Silences characterized by times of reflection, thought,
or work.Distress. Instances of embarrassment or tension--filled moments,usually reflecting disorganization and disorientation.

APPENDIX D

PRINCIPAL'S RESPONSE SCALE
The following teacher(s) is/are presently involved in a study of personalized interaction. I am interested in your views concerning the degree to which this teacher participates in the operational definition of personalized interaction. All responses will remain confidential.
Definition: Personalized interaction as defined here is an interaction between the teacher and one pupil, i.e., a teacher or pupil comment and reaction of awareness on the part of the other.
It is my contention that a multitude of personalized interactions take place each day within the elementary school classroom and that they range from extreme positive to extreme negative. Will you please rate the following teacher on the accompanying seven-point scale taking into consideration the topic phrases and the positive (+) to negative (-) relationship.

1. Individual contact
( + ) $\qquad$ : $\qquad$ : $\qquad$ : $\qquad$ : $\qquad$ _: $\qquad$ —— : (-)
2. Discipline
(+) $\qquad$ : $\qquad$
$\qquad$ : $\qquad$ —_ $\qquad$ : (-)
3. Personalization of instruction
(+) $\qquad$ : $\qquad$ : $\qquad$
$\qquad$ : $\qquad$ : $\qquad$ : (-)
4. Child centered classroom
(+) $\qquad$ : $\qquad$
$\qquad$ : $\qquad$ : $\qquad$ : (-)
5. Classroom organization
(+) $\qquad$ - $\qquad$ : $\qquad$ $:$ $\qquad$ : $\qquad$ : (-)
6. Relationships with students
(+) $\qquad$ : $\qquad$
$\qquad$ $:$ $\qquad$ ——: $\qquad$ : (-)
7. Relationships with parents
(+) $\qquad$ _ $\qquad$ : $\qquad$ : $\qquad$ —— $\qquad$ (-)
8. Pupil esteem for the teacher
$(+)$ : $\qquad$ : $\qquad$ : $\qquad$ : $\qquad$ : (-)
9. Pupil satisfaction
(+) $\qquad$ : $\qquad$ ——: $\qquad$ : $\qquad$ —— $\qquad$ : (-)
10. Teacher knowledge of individual learning problems
$(+)$ : $\qquad$ : $\qquad$ : $\qquad$ : (-)
11. Success with individual learning problems
( + ) $\qquad$ : $\qquad$ : $\qquad$ : $\qquad$ ——: : $\qquad$ : (-)
12. Classroom control
(+) $\qquad$ : $\qquad$
$\qquad$ : $\qquad$ : $\qquad$ : $\qquad$ : $\qquad$ : (-)

## APPENDIX E

## PUPIL SURVEY FORM

1. good Spinach
2. good







bad

Fried Chicken
3. good $\square$




bad

Recess
4. good $\square$






bad

Television
5. good


$\square$




bad

Homework
6. good
$\square$



bad Reading
7. good $\square$
$\square$
$\square$

$\square$


bad

Apples
8. good $\square$
$\square$


$\square$

bad

Playground
9. good


$\square$
$\square$



bad

School
10. good

$\square$
$\square$


$\square$bad

Teachers
(12) good


$\square$




bad

Mathematics (arithmetic)

$\qquad$

bad

Principal


## Schoolwork

(15) good $\square$
$\square$
$\square$
$\square$

 bad

## APPENDIX F

CLASSROOM CONTROL ANALYSIS

Please rate the teacher you have just visited on the following sevenpoint scale taking into consideration the topic phrase and the positive (+) to negative (-) relationships.

1. Classroom Control:
$(+)$ _ _ _ _ _ _ _
2. Relationship with students:

3. Individual Teacher to pupil contact:
$(+$ +
4. Pupil Satisfaction:
$(+) \quad \longrightarrow \quad$ _ $\quad$ _ $\quad$ _ $\quad$ (-)
5. Discipline:
$(+)$ _ _ _ _ _ $\quad$ _ $\quad$ _
6. Classroom organization:
$(+)$ - $\quad$ _ $\quad$ _ $\quad$ (-)
7. Personalization of instruction:
(+) $\qquad$ -
?
8. Child-centered classroom:
$(+) \quad$ _ $\quad$ _ _ _ $\quad$ _

## Clifford Eugene Hiatt

Candidate for the Degree of<br>Doctor of Education

Thesis: AN INVESTIGATION OF PERSONALIZED INTERACTION IN ELEMENTARYSCHOOL CLASSROOMS
Major Field: Curriculum and Instruction
Biographical:Personal Data: Born in Mutual, Oklahoma, July 22, 1931, the sonof Newton W. Hiatt and Olga Treas Hiatt.
Education: Graduated from Bakersfield High School, Bakersfield,California, in 1950; received the Bachelor of Arts degree inIndustrial Arts Education from California State University,Fresno, Fresno, California, in 1956; received the Master ofArts degree in Counseling and Guidance from California StatePolytechnic University, San Luis Obispo, San Luis Obispo,California, in 1965; completed requirements for the Doctor ofEducation degree in Curriculum and Instruction at OklahomaState University, Stillwater, Oklahoma, in July, 1977.
Professional Experience: Fourth and Sixth Grade teacher andelementary school counselor in Bakersfield City SchoolDistrict, 1957-63; elementary school vice-principal andprincipal at Morro Union School District, Morro Bay,California, 1963-72; elementary school principal in San LuisCoastal Unified School District, San Luis Obispo, California,1972-77.
Professional Organizations: California School Administrators Association, California Reading Association, Phi Delta Kappa, San Luis Obispo County Administrators Association.

