AN INVESTIGATION OF THE EFFECTS OF A SYSTEMATIC BEHAVIOR MODIFICATION PROGRAM ON THE VERBAL INTERACTION OF CLASSROOM TEACHERS AND ITS RELATIONSHIP TO TEACHERS' STUDENTS' SELF-CONCEPT

by

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Dissertation submitted to the Graduate Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of DOCTOR OF EDUCATION in

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May 1978

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FOREWORD

You can know me truly only if I let you, only if I want you to know me. . . . If you want me to reveal myself, just demonstrate your good will--your will to employ your powers for my good, and not for my destruction.

--Sidney Jourard,
The Transparent Self
ACKNOWLEDGMENTS

There were several persons whose assistance and support was invaluable, not only in the preparation of this study but also during the other stages of my graduate school experience. It is these persons to whom I would like to express my appreciation:

Dr. Robert Todd has done more than anyone to further my personal and professional growth. His guidance and support has greatly influenced my work.

Dr. Rose Sabaroff, my initial chairperson (on leave of absence), was of immense help in outlining my program and giving me valuable information in many different areas.

I would like to thank Mr. Mike Gentry who spent many hours helping me with the F.I.A.S. Rater Reliability. He did a fantastic job.

My sincere appreciation is extended to Dr. Shirley Farrier who was very encouraging and helpful throughout this study.

The guidance and cooperation of my doctoral committee has been outstanding and my sincere thanks go to Dr. Larry Weber, Dr. Richard Salmon, and Dr. Dave Hutchins with an extra thanks to Dr. Dennis Hinkle for his valuable insights with my statistical analysis of the data.

Dr. Protinsky was very gracious to sit in on my final examination.
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Chapter I

INTRODUCTION

Many of our most difficult problems in living are interpersonal in nature. Therefore, it seems reasonable to help students develop the skills necessary for establishing and maintaining effective interpersonal relationships. That is, we must help students become more socially competent.

It is difficult to overestimate the need for the teacher to be sensitive to the attitudes he expresses toward students. Even though teachers may have the best intentions, they sometimes project distorted images of themselves. What a person believes can be hidden by negative habits picked up long ago. Therefore:

Am I projecting an image that tells the student that I am here to build, rather than to destroy, him as a person?

Spaulding (1963) reported "that there is a significant relationship between a student's positive self-concept as reported, and the degree to which teachers are calm, accepting, supportive, and facilitative, and a negative relationship between a student's self-concept and teachers who are threatening, grim, and sarcastic."

Do I let the student know that I am aware of and interested in him/her as a unique person?

Moustakas (1966) maintains that "every child wants to be known as a unique person, and that by holding the student in esteem, the teacher is establishing an environmental climate that facilitates growth."
Do I convey my expectations and confidence that the student can accomplish work, can learn, and is competent?

Rosenthal and Jacobson (1968) have shown that the teacher's expectations have a significant influence on the student's performance.

Do I provide well-defined standards of values, demands for competence, and guidance toward solutions to problems?

Coopersmith (1967) has provided evidence that self-reliance is fostered by an environment which is well-structured and reasonably demanding, rather than unlimitedly permissive.

When working with parents, do I enhance the academic expectations and evaluations which they hold of their children's ability?

Brookover (1965) has illustrated that this method yields significant results in enhancing self-concept and improving academic achievement.

By my behavior, do I serve as a model of authenticity for the student?

Jourard (1964) suggests that a most important factor in the helping relationship is the helper serving as a model of genuineness, without "front."

Do I take every opportunity to establish a high degree of private or semi-private communications with my students?

Spaulding, 1963, found a high relationship between the pupil's self-concept and the teacher's behavior when it involved personal and private talks with students.

The above questions are samples of how teachers may check to see if they are conveying their beliefs in an authentic and meaningful fashion. As Gill (1969) reported, teachers' attitudes toward students are vitally important in shaping the self-concepts of their students. Gill summarized his study by saying that "teachers should consider
self-concept as a vital and important aspect of learning and development which the school, through its educational process, should seek to promote and foster in every child" (1969, p. 10).

The classroom teacher is the one who is most instrumental in determining classroom atmosphere. The atmosphere, at least to a degree, is a result of the teacher's typical means of behaving. If the climate of the classroom is to change, the teacher's behavioral patterns must change (Brown, 1971).

It is important to note that the relationship between teacher and student is really one of interdependency, because neither can enact his/her role without the participation of the other. This point was well illustrated by Dewey who suggested that a teacher could no more teach without a learner than a seller could sell without a buyer (Mouly, 1960).

Inservice training, or college courses, should be utilized to train teachers to identify children with low self-concepts and to provide these teachers with techniques which will help them improve children's self-perceptions. In a study of effects of systematic human relations training on fourth graders, Desselle (1974) found that students who received human relations training were observed to be more cooperative in class and were rated more positively by their teachers than students in the control group.

Too often poor performance is treated as though it were not related to poor self-concept. For example, remedial programs emphasize skill areas at the expense of self-concept areas. Therefore, a potentially valuable area for improving instruction is being ignored.
Teachers should be a source of powerful invitations to realize human potential. They should focus on individual standards, greater student independence and active student participation in the decision-making process. They might encourage feelings of worth by valuing uniqueness and student purposes. Successful students may generally be characterized as standing high in their own self-regard and as possessing confidence in their ability to cope successfully with life. Children are thinking, feeling, and physically responsive organisms. Therefore, educating them to be literate or scholarly is simply doing part of the job. Children's affective growth needs to be given at least as much consideration as their cognitive growth. From a holistic standpoint, no person can truly live effectively with other human beings if he or she lacks either the necessary cognitive or affective skills. Toffler (1970) writes in *Future Shock*:

> for education the lesson is clear; its prime objective must be to increase the individual's "copeability"—the speed and economy with which he can adapt to continual change. (p. 403)

In regard to human relations, Fischer (1968) has stated:

> The world each of us personally inhabits grows steadily and rapidly larger. No man today has any choice but to be part of a greater and more diverse community. To forego the opportunity to educate our children faithfully and imaginatively for this larger world will be to fail them tragically and inexcusably. (p. 224)

There is a need to discover techniques and ways of increasing communication with students. Rogers (1961), in his chapter "Significant Learning," in *Therapy and Education*, makes the following points:

1. significant learning is facilitated in a therapeutic relationship,
2. educators interested in significant learning might gain some worthwhile ideas from therapy, and
3. significant learning occurs more readily in reference to situations perceived as problems

and it therefore seems advisable that we allow students to be in actual contact with the problems of their existence, problems they wish to resolve. Similarly, Hopkins (1941) advanced the idea that education is a continuous and lifelong process and should, therefore, also be concerned with life-coping skills and not just the classroom, books, or academic subjects isolated from the larger world.

A number of contemporary social scientists (Mead, Rogers, Allport, Maslow, Fromm, Otto, and others) have hypothesized that the average "healthy" human being is functioning at 10 percent or less of his/her potential (Otto, 1970). The human relations training program (self-concept development) is designed to help develop one's vast capacities for improved functioning. A major theme of this program is skill acquisition.

The human relations training component in the course is similar to an introduction to counseling techniques for beginning graduate students. These kinds of skills are needed by teachers in order to make their training more complete. Listening skills and effective responding skills are beneficial for everyone, and especially for the classroom teacher who has to cope with many individual differences among the students as well as parents and administrative personnel.
THE PROBLEM

Statement of the Problem

A ten week human relations program was offered to classroom teachers in Pulaski County, Virginia. The course entailed a variety of skill acquisition that teachers could use in classroom situations to enhance their students' self-concept. The problem was to examine the following questions:

Part I.

Does a systematic behavior modification program for teachers have an effect on teachers' verbal classroom interaction?

Part II

Does the behavioral verbal change of teachers make a significant change in their students' self-concept?

Specifically, this study was designed to determine if teachers who were given approximately 30 hours of human relations training will function any differently in the classroom than teachers who did not have human relations training. One section of the study (Part II) is designed to determine if a change occurs, does it affect the self-concept of the teacher's students.

Hypotheses

Part I. The operational hypotheses are stated below in null form and were tested at the .10 level of significance.
There is no statistically significant difference between the experimental and control groups on:

1. Flanders' category 3 (accepts or uses ideas of students)
2. Flanders' category 6 (gives directions)
3. Flanders' category 7 (criticizes or justifies authority)
4. Area A of Flanders' matrix
5. Area B of Flanders' matrix
6. Area C of Flanders' matrix
7. Area D of Flanders' matrix
8. Area E of Flanders' matrix
9. Area F of Flanders' matrix
10. Area G of Flanders' matrix
11. The Indirect/Direct ratio
12. The total percentage of teacher talk.

**Part II.** The operational hypotheses are stated below in null form and were tested at the .10 level of significance (Piers-Harris Scale).

**Hypotheses:** There is no statistically significant difference between the experimental and control groups on Piers-Harris

- Subscale I--Behavior
- Subscale II--Intellectual and School Status
- Subscale III--Physical Appearance
- Subscale IV--Anxiety
- Subscale V--Popularity
- Subscale VI--Happiness and Satisfaction.
Significance of the Problem

This study should generate valuable information for educators. Inservice training or college courses can be offered to teachers to provide them with tools necessary for improving children's self-concepts. This should enable children to feel a greater sense of self-worth, thereby improving academic achievement.

The top two priorities voted on by the delegates to the 1971 White House Conference on Children were: (1) provide opportunities for every child to learn, grow, and live creatively by reordering national priorities, and (2) Redesign education to achieve individualized, humanized, child-centered learning (Close, 1971, p. 47). The Education Commission of the States (1975) has also proposed a program for life-coping skills training, including among these skills, interpersonal relationship skills. Thus, this program outlined is congruent with what appears to be a national trend to teach children to be human by behaving humanely toward those children.

Satisfying student's emotional needs is an important factor contributing to their total growth and development. In regard to the learning process, Jenkins (1951) suggests that greater learning will occur in the classroom to the extent that students are also able to satisfy their emotional needs there. The more fully their emotional needs are satisfied, the more they will be able to participate in their own learning. If students are free from disruptive anxieties, fears, or stages of anger or depression, then they are more likely to make the desirable cognitive and affective gains.
Withall (1949) and Flanders (1951) made the following propositions:

1. The teacher's behavior largely determines the quality of emotionality in the classroom.

2. Teacher-pupil relationships may affect pupils at deep psychological levels.

3. The way a teacher behaves in interaction with students affects how students come to view others (social attitudes) and how they will treat others (human relations).

A number of investigations have focused on the way teachers interact with their students. Flanders (1965) found that teachers who tend to dominate, force, and command also tend to elicit similar behaviors from their students. Pupils who feel good about themselves and their abilities are most likely to succeed; pupils who see themselves and their abilities in a negative fashion usually fail to achieve (Purkey, 1970). Purkey discovered that teachers who are socially integrative, offer choices and acknowledge and encourage students to express their feelings and opinions, stimulate their students to behave likewise. Students who were exposed to the dominating teachers displayed greater compliance to, as well as rejection of, teacher domination. The students of teachers who demonstrated more integrative behavior were more spontaneous, volunteered to contribute more often, and did more problem solving. Significant achievement differences in mathematics and social studies followed as a consequence of the teaching method used, and indirect methods of influence yielded greater gains than did direct methods of influence.
Because a positive self-concept is so vital if a child is to be happy and learn effectively, intervention strategies must be made to improve negative ones. Techniques are available which can be utilized and teachers should be thoroughly trained in the utilization of these techniques.

**Instruments Used in the Study**

**Instrument 1: Flanders Interaction Analysis**

There is, at present, a need to study the act of instruction in its natural setting, i.e., the classroom, and to attempt to draw from this experimentation a set of principles that will aid in understanding the process of instruction. The following is paraphrased from the Flanders Interaction Analysis Manual:

One of the responsibilities of the classroom teacher seems to be the guiding of learning activities for children. As they guide and as they structure situations to which the child can respond, the teacher interacts with the entire class, both as individuals and as a group. In the process of this interaction, which most often takes the form of verbal communication, the teacher influences the children in some way. But, is the teacher always aware of the nature of this influence? By studying their behavior in a systematic and objective manner, a teacher can gain insight into their pattern of influence.

Flanders System of Interaction Analysis provides a teacher with a "picture" of their verbal classroom behavior or performance and the "picture" will allow them to compare their performance with their intentions under classroom conditions. The use of interaction analysis will provide for the teacher objective information about their classroom behavior.

This instrument ties in with the human relations program in that the program is looking at skills teachers can use to enhance communication with students. If a change in that communication is made,
the Flanders system of analysis should be able to measure that change. The emphasis here is on the fact that teachers may study their own performance and make judgments that they consider appropriate, and to attain this objective, major emphasis is given to the system of interaction analysis that was developed by Ned Flanders at the University of Minnesota.

**Instrument 2: Piers-Harris Children's Self-Concept Scale (P-H)**

The Piers-Harris Self-Concept Scale, "The Way I Feel About Myself," was given teachers' students in the control and experimental groups. The P-H was administered according to the instructions in the manual. See added information in Appendix (A).

**Introduction (from P-H Manual).** Additional information is in Appendix (A).

The Piers-Harris Children's Self Concept Scale is a quickly completed (15-20 minutes) self report instrument designed for children over a wide age range (K-8). Administered in group form it requires approximately a third-grade reading knowledge. On an individual basis it might be used below that level.

**Stability (from P-H Manual).** Additional information is in Appendix (A).

A retest after four months on one-half the standardization sample resulted in coefficients of .72, .71, and .72, which were judged satisfactory for a personality instrument in the experimental stage over so long a period of time. The revised 80-item scale, though shorter, was shown to have better reliability since Wing (1966) found for both a two-month and four-month test-retest coefficients of .77 for 244 fifth graders.

**Use in the Classroom.** See Appendix (A) for additional information:
Since the Piers-Harris is quickly and easily administered to groups, it can be used as a screening device in school classrooms to identify children in need of psychological referral.

Terminology. See Appendix (A) for additional information:

Rogers (1951) defined the self-concept or self-structure as "an organized configuration of perceptions of the self which are admissible to awareness." This type of definition Wylie (1974) refers to as phenomenological. Self-concept as used in the Piers-Harris is in accord with the phenomenological approach and is assumed to refer to a set of relatively stable self-attitudes.

Reviews of the Scale. See Appendix (A) for additional information.

Buros' Seventh Mental Measurements Yearbook (1971) contains a detailed and generally favorable review of the Piers-Harris, written by Peter M. Bentley. While making suggestions for further improvement, the reviewer considered the scale to possess adequate reliability and validity for research use, and approved many features of the manual. Bentley states: "The authors not only have produced a psychometrically adequate scale but have written about it in a direct and honest manner. Care was taken that the scale not correlate unduly with social disability and reasonable success was achieved; however, quite high correlations, -.54 to -.69, exist with a measure of anxiety. The authors believe this correlation represents a true trait correlation rather than one of response style. Thus, the scale possesses sufficient reliability and validity to be used in research, as recommended by the authors."

In the first volume of her revised book on the Self-Concept, Wylie (1974) reviewed several instruments for children and considered the P-H to be the most promising research tool available, for reasons which she detailed. She also raised some pertinent questions and pointed out directions for improvement.

ORGANIZATION OF STUDY

As noted, the introductory chapter, Chapter 1, indicated the importance of the study, the problem the study investigated and the instruments used in the study. Chapter 2, Review of the Literature,
summarized research which is pertinent to the study. Chapter 3 describes the methodology of the study. Chapter 4 contains the analysis of the data and discussion of results that were found in this study. Chapter 5 contains the summary and conclusions drawn from the data, discussions, and recommendations for future research. The appendices and a vita complete the report of this study.
Chapter II

REVIEW OF THE LITERATURE

The review of the literature for this study is divided into three major sections. The first includes the theory and application of human relations training, especially in education. The second deals with the development and application of interaction analysis. The third deals with the P-H Scale and related to its use with self-concept.

Theory and Application of Human Relations Training

The helping relationship has been defined in many ways, but experimentally it has been determined that there is, in effect, a fairly limited range of behaviors considered ideally to represent a helping or therapeutic relationship (Fiedler, 1950; Rogers, 1957a; Whitehorn & Betz, 1954). Fiedler (1950) asked a number of psychotherapists from different schools of thought to describe what they considered to be the elements of an ideal therapeutic relationship. He found that experienced therapists from different schools of thought were in greater agreement about the nature of the helping relationship than were novice and expert therapists from the same school. Apparently, no matter what the school of thought from which these therapists began their work, as they grew more experienced they came to see the helping relationship in highly similar terms.
In a later study, Soper and Combs (1963) applied Fiedler's helping relationship Q-sort to a group of superior teachers in a university laboratory school. The good teachers were in close agreement with the expert therapists concerning what a helping relationship should be like.

Rogers (1957b) personally limited the range of therapeutic behaviors in his classic report of the necessary and sufficient conditions of therapeutic personality change. He identified six conditions and considered all others, commonly regarded as necessary to psychotherapy, non-essential. Rogers' six conditions are: (1) two persons are in psychological contact; (2) the client is in a state of incongruence, being vulnerable or anxious; (3) the therapist is congruent or integrated in the relationship; (4) the therapist experiences unconditional positive regard for the client; (5) the therapist experiences an empathic understanding of the client's internal frame of reference and endeavors to communicate this experience to the client; and (6) the communication to the client of the therapist's empathic understanding and unconditional positive regard is to a minimal degree achieved. Rogers stated explicitly that these conditions are valuable and that if these six conditions exist and continue over a period of time the process of constructive personality change will follow.

Generalizing from these findings concerning the necessary elements for an effective interpersonal relationship, several researchers have demonstrated the implications for teacher education, both in
pre-service and in-service (Aspy & Hadlock, 1967; Aspy, 1969; Carkhuff & Griffin, 1971; Davitz, 1964; Hefele, 1971; Isaacson, McKeachie & Mil-holland, 1963; Kratochvil, Carkhuff & Berenson, 1969; Pace & Stern, 1958); Thistlewait, 1959; Truax & Tatum, 1966). Gazda (1971) considers the mastery of human relations skills to be as essential to the total development or training of a prospective teacher as is the mastery of academic subject matter. Certainly mastering the subject matter is a necessary prerequisite to good teaching but is no guarantee of it.

Willis (1961) reported that the value of the public secondary school program most frequently and spontaneously mentioned by graduates 20 years after graduation was the warmth and human atmosphere communicated by the school teachers and administrators, the friendly relations of the students with each other and with the teachers, the homelike feeling of the school, the freedom allowed by the teachers, the small classes, and the informal atmosphere. Also mentioned was the fact that the abuse of the freedom was handled in a firm but friendly manner. Realizing though the school environment and society has changed, the student of 1978, it is felt, could be positively influenced by situations similar to the results found in the Willis study.

In a more rigorous study of the school setting, extensive support was found for the role of the teacher's positive regard and warmth for her students in effecting positive changes in the preschool adjustment of the children (Truax, 1960). Extremely promising support has distinguished the relationship between the teacher's empathic understanding of her students and the students' improved adjustments (Carkhuff & Truax, 1966).
Christensen (1960) found the warmth of teachers to be significantly related to the vocabulary and arithmetic achievement of primary grade pupils. Reed (1962) and Cogan (1958) found that teachers who offered high degrees of warmth favorably affected their students' interest in science, and produced an exceptional quantity of art and creative poetry. Bush (1954) said,

Teachers retain their effectiveness as professional persons only so long as they remain warmly human, sensitive to the personal needs of children, and skillful in establishing effective relationships with them.

Similarly, the backgrounds of children who display a great amount of social maladjustments (Cass, 1953; Montalto, 1952) and overt hostility (Chorost, 1962) are characterized by higher levels of parental authoritarian control and lower levels of parental warmth and awareness of their needs than is the case with children who are better adjusted socially.

Aspy and Hadlock (1967) in a rather startling study based on Carkhuff and Berenson's book *Sources of Gain in Counseling and Psychotherapy*, found that pupils of teachers functioning at the highest levels of empathy, warmth, and genuineness demonstrated higher levels of academic achievement than pupils of teachers functioning at the lowest levels. They reported that over the course of one academic year the students of the highest level teacher gained an average of two and one-half academic years while the students of the lowest level teacher gained an average of six academic months. Also, pupils of teachers functioning at low
levels of these three dimensions were significantly more truant than pupils of high level teachers.

Hefele (1969) conducted a study to assess the effectiveness of interpersonal training for prospective teachers and its effect on the quality of interpersonal communication and pupil achievement. Using academic achievement criteria, his results indicated a positive relationship between teacher communication and pupil achievement.

Williams (1972), using the specific functional interpersonal skills proposed by Carkhuff, found significant differences in student performance between students of trained and untrained teachers. Specifically, he compared the gains on tests of knowledge of learning theory (Bigge and Hunt) by two matched groups of students. Group A received instruction from teachers who were trained in interpersonal skills, while the teachers for Group B received no such training. The results indicated significantly higher (p<.05) gains for Group A than Group B. The specific skill criterion for the Group A teachers was that they could make an interchangeable response while the teachers of Group B could not. Williams concludes that this skill is a significant factor in facilitating learning.

Aspy (1972) using a modified Flanders Interaction Analysis Approach, reported a study in which a group of 17 first-grade teachers took part in a training program designed to increase their levels of interpersonal skills. Before their training began, 25 students were randomly selected from among their classes and administered the Stanford-Binet Intelligence Test. This test was again administered after the
human relations training. The students gained an average of nine points, an increase that was statistically significant. In addition, the measured self-concepts of the students were positively related to the improved interpersonal functioning of the teachers.

Bandura and Walters (1963) found the teacher-student relationship can be generalized below the college level with our present knowledge of modeling and human behavior.

In a study which was conducted to assess the effects of graduate training upon communication and discrimination of the facilitative conditions of empathy, respect, genuineness, and self-disclosure, Carkhuff (1968) found an increasing ability to discriminate during the stages of training and also found that trainees move in the direction of their professors.

To help determine the effects over time of the level of supervisors' interpersonal functioning upon the level of the supervisees' functioning in the helping role, Pierce (1969) assessed audio tapes of interns and supervisors every six weeks over a period of 36 weeks. The results indicate that the interns of those supervisors functioning at high levels made significant and positive changes in functioning in helping while the interns of those supervisors who were functioning at low levels did not change or declined. Similarly, Pierce, Carkhuff, and Berenson (1967) assigned to two groups 17 volunteers for a lay mental health counselor training program. Eight were assigned to a high level functioning counselor and nine to a low level functioning counselor as
measured by previous objective tape ratings of empathy, respect, genuineness, concreteness, and self-disclosure. After 10 two-hour sessions the high level functioning counselor's group demonstrated significant improvement on all individual conditions. The group of the low level functioning counselor demonstrated no significant changes, although the trainees on an average did move toward the levels at which the trainer was functioning.

Holder (1969) studied the immediate and lasting effects of empathy communication training. Three groups of ten student nurses each were exposed to 5, 10, and 15 hours of standard didactically oriented training procedures offered by a facilitative trainer. The results indicated significant and consistent gains for all groups. At one- and two-month follow-up points, the post-training levels were sustained, indicating a lasting improvement in communication of interpersonal dimensions. The 5 hour group functioned least and the 10 hour group ranked second while the group with the longest training time functioned at the highest level.

Dixon and Morse (1961) discovered that empathy was positively related to the perceptions of pupils and supervisors. Teachers identified as "more open" were perceived by their pupils as significantly more student-centered, empathic, congruent, and unconditional in their level of regard (Emmerling, 1961). Griffin and Banks (1969) conducted systematic human relations training for teachers working with inner-city students. Following training, the teachers demonstrated high levels of interpersonal skills and the elementary students were unanimous in evaluating the learning experience as the best in their school years.
Carkhuff (1970) directed a study in which separate training groups were conducted for ghetto school children who were experiencing difficulty in self-expression, and their respective teachers. The result of this study was that the students received exceptionally high ratings in regard to expressing themselves openly in the classroom. Stoffer (1970) examined the relationship between the levels of empathy and positive regard offered by teacher-counselors and measures of elementary student achievement and classroom behavior. He reported a significantly positive relationship between these variables.

Carkhuff (1969) summarizes effective training as:

... a behavioristically oriented training program directed toward experiential conditions is the most effective for patient helpers as well as for professional helpers and such a program probably constitutes the preferred mode of treatment for many patient populations. In addition, these training programs under the guidance of trainers functioning at high levels may deal effectively with the major social problems of our times. Gains in interpersonal functioning are one of the critical aspects of all effective interpersonal processes. A structured approach geared to the goals of the specific problems involved appears to provide the most economical and effective means of attaining the desired changes. (p. 238)

Summary

In summary, the human relations literature, and especially the human relations literature in teacher education, does not leave much doubt that great benefit is derived in the form of better teacher-student relations and even in better student achievement when the teacher is functioning at least at minimally helpful levels on the facilitative dimensions of empathy, respect, and warmth. Also the teacher is able to experience more satisfaction as the teacher-student communication barrier is overcome.
The above research bears out a need for such a course that was involved in this study. This increase in teacher pupil communication has a direct relation also to the second part of this study that relates to the self-concept of the teachers' students.

**Development and Application of Interaction Analysis**

In studying a human relations training model, the ideal situation is to observe human interaction in the setting in question in order to determine the influence of the model. Likewise, there is no more obvious approach to research on teaching than to observe directly the teacher in the teaching situation. With this information, it is surprising that so few studies have been reported using classroom interaction to judge teacher effectiveness. Medley and Mitzel (1963) have tried to explain this paradox. They contend that observations are expensive in terms of time, money, and the professional skill demanded of observers; that observations constitute an invasion of privacy that teachers and administrators resent and resist; that the presence of an observer in a classroom is so disturbing that the behavior seen cannot be regarded as typical of the behavior which goes on when an observer is not present; and, above all, that most studies in the past which have employed classroom visitation have not been successful in increasing our knowledge about teaching and learning. The most serious charge here seems to be that the sample of behavior while the observer is in the room is not representative of behavior which normally occurs in the classroom. Flanders (1960), however, is convinced that a nonverbal observer does not make a significant difference in a classroom.
The earliest systematic studies of classroom behavior date back to the late 1930's when H. H. Anderson and his colleagues (Anderson, 1939; Anderson & Brewer, 1945; Anderson & Brewer, 1946; Anderson, Brewer & Reed, 1946) observed "dominative" and "integrative" behavior of teachers. They found that the teacher's behavior pattern influenced the behavior of pupils in various ways. Teacher remarks either required conformity by the child (dominative contacts) or encouraged more participation (integrative contacts). These longitudinal studies indicate that these two types of behavior could be successfully recorded.

Working with Kurt Lewin, Lippit and White (1943) extended Anderson's work. They used a laboratory approach to explore the effect of leadership strategies (authoritarian, democratic, and laissez-faire) on the behavior of boys participating in club groups. Their results indicated that the strategy of leadership, either adult or peer, significantly altered the social climate of interaction. The amount of aggressive behavior was demonstrated to be related to leadership styles. Lippitt and White and Anderson's studies laid the groundwork for research in teacher effectiveness.

Much of the interaction analysis research was influenced a great deal by the pilot work of Wrightstone (1933; 1934). He developed a system for measuring teacher conduct of class discussion. Though Wrightstone's was a pioneer effort, he was admittedly influenced by the work of Olson (1929), Goodenough (1928), and Thomas (1929). Withall (1949) showed that a simple classification of the teacher's verbal statements into seven categories produced an index of teacher behavior almost identical to the integrative-dominative ratio of Anderson et al.
(1939; 1945; 1946). In a later report, Withall (1951) described how he systematically reduced 25 kinds of teacher statements to seven categories. These seven categories were: (1) learner-supportive; (2) acceptant; (3) problem-structuring; (4) neutral; (5) direction; (6) reproving; and (7) self-supporting.

Bales (1950) was the next person to design a category system to assess interaction. His system recorded the verbal interaction patterns of small group situations, but his most important contribution appears to be in the domain of technique. Bales was the first individual to introduce a timing factor for systematically observing classroom behavior at set intervals.

Flanders (1951) created laboratory situations in which one pupil at a time was exposed to contrasting patterns of teacher behavior. A sustained dominative pattern was consistently disliked by pupils, reduced their ability to recall the material studied, and produced disruptive anxiety as indicated by galvanic skin response and changes in heartbeat rates. The opposite trends were noted in pupil reactions to integrative contacts.

Perkins (1951), using Withall's technique for assessing interaction, studied groups of teachers organized to discuss the topic of child growth and development. He found that greater learning about child growth and development occurred when group discussion was free to focus on that topic; groups with an integrative type of leader were able to do this more frequently than were groups led by a dominative type of leader.
In a large cross-sectional study, Cogan (1956) administered a simple paper-and-pencil instrument to 987 eighth-grade students in 33 classrooms. The instruments contained three scales: (1) a scale assessing student perceptions of the teacher, (2) a scale on which students reported how often they did required schoolwork, and (3) a scale on which students reported how often they did extra non-required school work. Cogan found that students reported doing more assigned and extra school work when they perceived the teachers' behavior as falling into the integrative rather than the dominative pattern.

Flanders (1965) utilized this early research in the formulation of his 10 category system which assessed not only teacher talk but also included student talk and silence or confusion. His categories are divided as follows:

Categories for teacher talk:

1. accepts feelings
2. praises
3. accepts ideas
4. questions
5. lectures
6. gives direction
7. criticizes

Categories for pupil talk:

8. student talk-responding
9. student talk-initiation
10. silence or confusion

Flanders also developed an interaction matrix which allows the observational data to be more easily counted and sequenced. An example of this procedure is given in Appendix (B).
According to Flanders (1964) his system of interaction analysis is a specialized research procedure that provides information about only a few of the many aspects of teaching. It is an analysis of spontaneous communication between individuals, and it is of no value if no one is talking, if one person talks continuously, or if one person reads from a book or report. Unless additional records are kept, the following kinds of information will be ignored: right, wrong, good, or bad content information—whatever is being discussed; the variety of instructional materials being used; the various class formations during learning activities; the preparation of the teacher as revealed by lesson plans; and anything else not directly revealed by verbal communication. Of the total complex called "teaching," interaction analysis applies only to the content-free characteristics of verbal communication. From his research on interaction analysis, Flanders has derived a two-thirds rule: in the average classroom someone is talking two-thirds of the time; two-thirds of this is teacher talk; and two-thirds of teacher talk consists of direct influence which includes lecture, direction-giving, or criticism (Amidon & Simon, 1965).

Schantz (1964), using Flanders' categories of interaction analysis, tested the effect of indirect and direct teaching on high and low ability children in fourth-grade science lessons. She found that the high ability group exposed to indirect teacher influence scored significantly higher on a science test at the end of the experiment than did the high ability group exposed to direct teacher influence. Flanders (1960) found that seventh- and eighth-grade students in social
studies and geometry learned significantly more when their teachers were indirect rather than direct. Above-average student participation, above-average acceptance of student ideas, and below average teacher talk were associated with higher achievement.

Flanders (1959), in a series of studies over a 10-year period, attempted to relate pupil attitudes as measured by a climate index to teacher influence patterns as identified by trained observers using the Flanders system of interaction analysis. The studies, carried out in elementary and secondary schools in the United States and New Zealand, indicated that a positive social-emotional climate tended to be associated with indirect teacher influence. LaShier (1966) has reported a study in which the relations were examined between the ratio of indirect/direct teacher behavior as measured by the Flanders system of interaction analysis, and achievement gain measured by an experimenter-constructed test, and pupil attitudes as measured by the Michigan Student Questionnaire. The study used data collected in the classrooms of 10 student teachers who were teaching a unit on animal behavior from a basic biology curriculum. A significant correlation (p<.01) was reported between the I/D ratio and achievement gain. Significant correlations (p<.05) were reported between class medians for pupil attitude and median achievement gain and between I/D ratio and pupil attitude.

Observation of student teachers was carried out by Kirk (1964). His purpose in this study was to determine if teaching a system of interaction analysis would have any effect on the verbal interaction pattern in the classroom. There were three findings in this study:
(1) delineation of distinct verbal patterns of behavior which could be considered as characteristic of student teaching style can be determined by careful observation of student teachers; (2) the verbal patterns of student teachers taught a system of interaction analysis can be modified to a certain degree: the type and amount of student teacher talk and the balance between that talk and the pupils' talk are affected significantly; and (3) pupils of student teachers taught the system of interaction analysis can detect some changes in the style of teaching used by their student teachers.

In a study involving 153 elementary school teachers, Amidon and Giammatteo (1965) found that verbal behavior patterns of superior teachers differed substantially from those of average teachers. The superior teachers talked less, were more accepting of pupil-initiated ideas, tended to encourage those ideas more, dominated their classrooms less, used indirect influence more, and used direction giving criticism less than the normative group. The superior teachers were interrupted more often by questions from pupils. A similar but more sophisticated study by Flanders (1961) had yielded comparable results. Flanders had four major findings in his study of classrooms in which achievement and attitudes were superior: (1) the teacher was capable of providing a range of roles, spontaneously, that varied from fairly active, dominative supervision, on the one hand, to reflective, discriminating support, on the other hand. The teacher was not only able to achieve compliance but also to support and encourage student initiative; (2) the teacher was able to control his own spontaneous behavior so that he could assume
one role or another at will; (3) the teacher had sufficient understanding of principles of teacher influence to make possible a logical bridge between his diagnosis of the present situation and the various actions he could take; and (4) the teacher was a sensitive, objective observer who could make valid diagnoses of current conditions. The major characteristic of unsuccessful teachers in this study was the inability to expand or restrict the freedom of action of the students through one's self-control of verbal influence.

Amidon and Flanders (1963) found that superior teachers could be just as direct as any other teacher in certain situations, but the difference was that they could be far more indirect in other situations. This ability, which was rarely found among teachers categorized as direct, meant that the teacher had the capability to make his own behavior appropriate to the requirements of the class situation at the moment. Amidon and Flanders also reported that teachers who are qualified in some content area should be exposed to some type of human relations training that will help them attain the following objectives: (1) the ability to use the social skills of accepting, clarifying, and using the ideas of students in planning work and diagnosing difficulties; (2) the knowledge of those acts of influence that restrict student reactions and those that expand student reactions; and (3) understanding a theory of instruction that can be used to control teachers' behavior in guiding classroom communication. Flanders (1976) stated the system of Interaction Analysis is a very careful tool for assisting in the instructional improvement process.
During the last twenty years, the Flanders Interaction Analysis Scale has been the basis of a large proportion of the verbal teacher behavior studies reported in the literature (Eggland, 1974).

Aspy (1975) did a study with the scale using 50 elementary school teachers in which levels of the teachers' meaning (empathy) were significantly related to categories of Flanders's Interaction Analysis in such a fashion that high levels of meaning could be interpreted as being accompanied by increased amounts of student involvement. It is hypothesized that for students, involvement and relevance may be a consequence of having the meaning of their experiences understood and responded to in a facilitative manner.

Swigger (1976) describes a series of computer-assisted instruction (CAI) lessons developed a university teacher-education program. The specific lessons were designed to teach methods students the basic concepts of the Flanders Interaction Analysis method, a system by which teachers learn to categorize classroom verbal behavior. Reasons for using the computer to teach interaction analysis, objectives and description of the specific lessons, and an evaluation of the entire module are considered. After a year of operation, CAI has proven to be markedly effective in teaching methods students how to analyze classroom behavior.

Summary

In summary, the research studies have pointed out the applicability of interaction analysis in teaching. Much use has been made
of it as an instrument for self-evaluation. In addition to self-evaluation, various measures in the Flanders Interaction Analysis system can be readily applied to the evaluation of a human relations training model. By definition of the categories in the Flanders system, there will be predictable outcomes on the matrix for those teachers who have adapted any of the human relations training methods into their own way of interacting in the classroom.

Review of Piers-Harris Scale (Self-Concepts)

For this study the Piers-Harris Scale for Children (P-H) (the way I feel about myself) was used. Robinson and Shaver (1973) in the Measures of Self-Esteem chapter by Rick Crandall stated the P-H scale was the most highly recommended scale for children.

Wingett (1974) attempted to assess the effect of a career development program on the self-concept and career attitude maturity of eighth-grade girls. Students in three junior high schools in Wyoming participated in the program one class period a week for ten weeks. Treatment and control groups were each composed of 38 subjects. Self-concept increased significantly more in the experimental than the control groups, but career attitude maturity showed no treatment effect. There were significant score differences in both variables from school to school, suggesting that the programs may have been presented more effectively in some schools than in others. This program was designed by the counselors in three junior high schools in Wyoming one class
period (40-45 minutes) per week for ten weeks with two additional class periods used to administer the pretests and posttests. The control group did not receive any facet of the instruction.

Jackson (1974) studied the effect of a special reading program adapted from Aesop's Fables, on reading achievement and self-concept of fifth-grade students. Involved were 120 children enrolled in four elementary schools in Massachusetts. The experimental group participated in the program during 40 minute sessions, three times a week for eight weeks. Results showed significant increases for self-concept, reading achievement, and responses to salient traits of the animal characters in the Aesop Fables for the experimental group. Female students in the experimental group increased in reading achievement more than males. The degree of posttest change was unrelated to level of initial self-concept scores.

Wandel (1974) studied the effects of self-concept on students' planning and producing photographic and non-photographic projects, and the effects of presenting or not presenting these projects to significant others. Sixth-, seventh-, and eighth-grade students in a Pennsylvania city summer school were randomly assigned to one of the four treatment groups. Results indicated that the group using photography in a project had higher self-concept scores than the group using non-photographic media. However, the effects of presenting, or not presenting the results showed no differences, suggesting that the benefit came from the process itself.
It is recommended that the educator have some background in the basic tenets of self concept, be aware of and sensitive to the student's needs in the affective domain, especially self-concept, and meet these needs with alternatives and options, such as photographic equipment.

In a complex study, Potter (1974) investigated the effects of the sex on the main character in some children's stories upon problem-solving ideology (are girls or boys more likely to think of ideas?), upon self-concept, and upon problem solving performance. Middle-class California third-graders were divided into three groups who were exposed either to a male model story, a female model story, or a balanced sex model story. The P-H, a measure of ideology, and a problem solving task were administered one week before and directly after exposure to the stories.

Contrary to the hypotheses, children received the highest self-concept scores after reading the book in which the opposite sex was the main character and the lowest scores after reading the same sex story. It was suggested that children tend to compare themselves positively to the same sex model when cast in the inferior role and negatively to the same sex model when cast in the superior role.

Stevens (1974) studied the effects of didactic group therapy on the self-esteem of potential school dropouts. Half of the 38 potential dropouts constituted control group I and 20 children not at risk of dropping out (non-potential dropouts) constituted control group II.
The P-H was administered before the 9-week program, after the program, and four months later. The non-potential dropout group had significantly higher scores on the pretest but neither they nor the other control group increased at posttest or follow-up. Potential dropout boys in treatment who had higher pretest scores than the girls, increased significantly on the posttest only on Popularity, while the girls increased (p < .07) on the total mean and on three of the cluster scores. No additional increases were measured at follow-up. The author concluded that the girls had less need to maintain their egos, were more realistic, and more receptive to the treatment.

Rudawski (1974) studied the comparative effect of open space versus self-contained classrooms on pupil self-concept. The 250 subjects were students in grades one through five who had experienced a variety of combinations of classrooms. The P-H was administered during the second week of school and again after a 12-week period. While the differences that were significant favored slightly the self-contained classrooms, no firm conclusions can be drawn from this study.

Houser (1974) studied the effects of a program in which seventh- and eighth-grade students acted as tutors to younger children. The control group was a random sample of junior high students from the same school. Significant gains were recorded by the student-aides over the control group in self-concept and in reading.

Mason (1975) studied the effects of tutoring on the self-concepts of elementary school pupils. The tutoring, conducted by university students, involved 2 to 4 sessions a week for 14 weeks in reading and
language arts. Results indicated that tutoring had a significant effect on the self-concepts of high-achieving students, but not of average-or low-achieving students. Both the experimental and control groups showed high achievers with the highest self-concepts, and average achievers with the lowest self-concepts. At the integrated school, white students had significantly higher self-concepts than black students. There were no significant differences between black students at the integrated and the predominantly black school, and no significant sex differences.

Fitzpatrick (1975) studied the effects of a 16-week program of value clarifying strategies on the self-concept and reading achievement of 547 seventh-grade students in parochial schools. Analysis of variance was utilized, covarying for differences in I.Q. of the students, and number of years of teaching experience of the teachers. Results indicated that the treatment group achieved significantly higher gain scores (.001 confidence level) than the control groups on the P-H, the California Test of Personality, and the Iowa Silent Reading Test.

Baker (1975) examined the relation between selected third-graders' self-concept and attitude toward reading, following a two-year instructional sequence either in (1) Lippincott's Basic Reading Program or (2) a teacher-designed "opportunistic" reading program. Numbers were rather uneven, amounting to 455 in the regular program versus 64 in the opportunistic program. A significant positive relationship was found between attitude toward reading and self-concept for all participants, with the two groups not significantly different from each other.
An analysis of variance of IRA (Inventory of Reading Attitude) and P-H scores by race, sex, SES, and reading program showed no significant main effect due to the reading programs. There was, however, a significant interaction between race and socio-economic status, regardless of reading program. Cluster 1 (Behavior) of the P-H also showed this interaction, with high SES whites more accepting of the traditional norms of school behavior. In the Cluster 4 (Anxiety) analysis, there was some tendency over-all, for higher SES children to be less anxious about matters concerning schooling.

Smith and others (1977) reported test-retest item instability indices for low, middle, and high scorers on the P-H self-concept scale were calculated in order to test Wylie's (1974) hypothesis that low scores are invalid because of unreliability of responding. Academic underachievers served as subjects, and the results failed to support Wylie's prediction. Children with high self-concept scores exhibited significantly less item instability than did children with either middle or low self-concept scores, while the latter groups did not differ on the item stability variable. Wylie's (1974) concern that low P-H self-concept scores are invalid because of unreliable or chance responding received little support in this investigation, and the writers believe that Wylie's concern is unfounded.

Gabel, Harris and others (1977) were involved in a study that had to do with parental involvement in schools and the potential for increased dividends if communication between parent and school is increased. This investigation explores benefits claimed for
parent-teacher communication, with specific focus on a special education setting. The hypotheses that change in reading and mathematics achievement and child self-concept will relate to informal parent-teacher communication are examined in a population of learning-disabled elementary school children. The P-H children's self-concept scale was used to assess children's self-concept. Also, the Metropolitan Achievement Test (MAT) was administered. Difference of scores (posttest-pretest) were calculated for P-H and MAT Reading, word knowledge, and arithmetic scores to indicate change in these variables. The results do not support the belief that changes in academic achievement and self-concept among learning disabled children would be related to informal parent-teacher communication.

Chang (1976) conducted a study with 197 pupils from fourth-, fifth-, and sixth-grades were studied to determine the relationship between children's self-concept, academic achievement, and teacher's rating of children's self-concept. The differences between grade levels, sex, and ethnic group membership were tested by analysis of variance. Significant ethnic group differences were found in self-concept, academic achievement, and teacher's rating of self-concept. The P-H test was used to determine self-concept.

Malcolm (1975) studied the effect of an 18-week science curriculum improvement program on the self-concept and attitude toward science. Subjects were children in grades 3-6. Total mean self-concept
gain scores failed to show significant differences, but the experimental group was significantly higher on the cluster scores of Intellectual and School Status, and Physical Appearance and Attributes. Effects of the program on attitudes toward science were less consistent.

Rath (1975) instituted two methods of training for mothers, behavior modification and child advocacy, and assessed the effect on fourth- and fifth-grade children with low self-concepts, and the effect on parental attitudes. One control group consisted of volunteer parents who received no training and the other consisted of non-volunteer parents who received no training. The preliminary analysis of self-concept scores showed the change scores of children in the training groups to be significantly higher than those in the control groups, but further analysis showed this difference to be due to the volunteer effect rather than the training effect. Beyond the volunteer effect, only the behavior modification group was shown to be significantly effective in increasing children's self-concept scores. Neither type of training significantly affected parent attitudes.

Summary

The P-H scale is quickly and easily administered to groups. The scale was developed primarily for research and has been used in such studies as career development, reading programs, potential school dropouts, open space, and tutoring to name only a few. Wylie (1974) reviewed several instruments for children and considered the P-H
to be the most promising research tool available, for reasons which she detailed. For the above reasons, the P-H scale was used in this study.
Chapter III

METHODOLOGY

A ten-week systematic behavior modification program for classroom teachers was held in Pulaski County, Virginia. Forty teachers in the County System registered for a 3-credit hour graduate level class entitled "Theoretical Foundations and Practical Implementation of Self-Concept." This class was placed on a county-wide listing, distributed throughout the county, of possible extension courses offered in the county (See Appendix C). This class was designed and instructed by Jerry Dale Jones, who was assisted by Dr. Robert Todd, Chairman of the Committee.

This course was a systematic human relations development program based on the Robert Carkhuff model. It focused on teachers' verbal interaction with students; also clues for spotting students with low self-concepts, along with techniques and skills that may be employed to improve self-concept development were included in the format. Audio-visual aids were utilized to help communicate these ideas. See Appendix C for details of weekly meetings.

Part I

Teachers--experimental group. Ten teachers who were members of the training class were chosen at random from the 40 teachers enrolled in the class. These ten teachers were pretested, using the Flanders
interaction analysis, and given feedback on the analysis based on the 10 categories used in the Scale. Methodology called for posttesting at the end of a 20-week time schedule.

**Teachers--Control Group.** Ten teachers not taking the class were chosen as the control group. These teachers were selected from teachers in the Pulaski city school area. Teachers were posttested using F.I.A.S. at the end of a 20-week time schedule.

**Part II**

**Self-Concept (student change).** The second part of this study sought to determine student self-concept change. Ten students (5 boys, 5 girls) in a stratified random sample were chosen from each teacher (control and experimental--approximately 200 students) and were administered the Piers-Harris Children's Self-Concept Scale--"The Way I Feel About Myself" (pretest). The methodology called for post-testing at the end of a 20-week time schedule.

**The Sample**

**Part I**

**Teachers--Experimental group.** (See Figures 6 and 7 in Appendix (D), which summarize specific characteristics of the Experimental and Control teachers.) Ten teachers who were members of the human relations training class were chosen at random. These teachers, from a class of 40, were actively involved in the development program (10-week). The ten teachers chosen at random, with the exception of one
outlying school) were all from the Pulaski city area. The teachers were observed by a rater using the Flanders Interaction Analysis (pretest). This observation was done in class with the aid of a tape-recorder by the investigator. The time of observation with tape was 30 minutes, along with in-class observation of 30 minutes per teacher. A second rater was used to determine rater reliability. The second rater was given four tapes at random. The rater did not know if the tapes were control or experimental and was in no way involved with the study. Both raters were self-taught using the Interaction Analysis Training Tape Manual Kit, by Amidon and Amidon, and The Role of the Teacher in the Classroom: A Manual for Understanding and Improving Teacher Classroom Behavior, by Amidon and Flanders. Both raters had used the Flanders Analysis prior to this study.

Teachers--Control group. Ten teachers were chosen who were not involved in any way with the development program. The ten teachers were chosen from a pool of teachers in the Pulaski city schools, with the exclusion of teachers who team taught with teachers in the experimental group. The City schools were selected for two basic reasons: (1) teachers were teaching students from a similar locality as experimental, and (2) the county is so large it would have involved unrealistic time demands to use schools away from the main population. The procedure using the Flanders Interaction Analysis was identical to that used in the experimental group.
Part II

Students--Experimental group. The experimental group of students consisted of 50 boys and 50 girls (total 100); 5 boys and 5 girls were chosen at random from classrooms that had teachers who were participating in the Systematic Human Relations Development Course. The P-H scale was administered to each student. Pre- and posttests were utilized.

Students--Control group. The student control group consisted of 50 boys and 50 girls (total 100); 5 boys and 5 girls (stratified random sample) were chosen from classrooms that have teachers not participating in the Systematic Human Relations Development Course. The P-H Scale was administered to each student. Pre- and posttests were utilized.

Tests and Observations

There was a 20-week interval between pre- and posttesting.

Pretest. All pretests and observations were administered the week of October 16, 1977, the first week of the presentation of the experiment prior to any content presentation.

Posttest. All posttests and observations were administered the week of March 20, 1978, twenty weeks after the initiation of the experiment.

Procedures before Treatment

Hamachek (1971) states that there are 5 interrelated generalizations from which research is telling us about how effective teachers differ from less effective teachers when it comes to perceptions of
others. Effective teachers can be characterized in the following way:

1. They seem to have a generally more positive view of others—students, colleagues, and administrators.
2. They are not prone to view others as critically, attacking people with ulterior motives, but rather see them as potentially friendly and worthy in their own right.
3. They have a more favorable view of democratic classroom procedures.
4. They have the ability and capacity to see things as they seem to others; i.e., the ability to see things from the other person's point of view.
5. They do not see students as persons "you do things to" but rather as individuals capable of doing for themselves once they feel trusted, respected, and valued.

The Systematic Human Relations Development Course was instituted in a teacher-class format. McDonald (1973) indicated that the application of behavior modification techniques to teacher training was made possible through the development of video tape and micro-teaching. This design was utilized by Brown (1972) with teachers to change their classroom behaviors. The advantage of this procedure appears to be teacher acceptance of the change program when presented in a familiar training mode.

Goals of the Behavior Modification Program

Goals for the program were individually determined with each teacher. The teacher and observer-consultant agreed on a
reasonable increase in the positive responses to be emitted after the baseline assessment and an individual conference was held concerning the results. Such an agreement eliminates ethical dilemmas and promotes involvement. This increase depends on the teacher's present performance. Sulzer (1972) warned that an unrealistic goal dooms a program to failure so a reasonable goal might be to increase positive responses from zero to three per hour.

The criteria by which the final goal attainment was judged included the conditions and restrictions for performance. The teacher selected one academic class; i.e., reading, math, social studies, science, in which to double the positive responses by the end of six weeks of class. However, a series of weekly goals provided more flexibility and permitted the final goal to be adjusted accordingly. The program had weekly goals mutually set by the teacher and observer-consultant and a final goal which was adjusted in some cases. A goal expansion into another academic class is preferred to increasing responses continually in one class. This provided a broader base for positive influence on the self-concept of students.

Teachers responded in a positive manner to students some of the time; therefore, the procedures chosen to reach the goal were those to increase the desired behavior. Several factors are involved in the selection of these procedures. One is whether positive or negative reinforcement will be applied since both can increase a behavior. The thrust of the program was positive reinforcement by the teacher to the student so, to be consistent, the training program utilized the positive approach.
To do otherwise would have implied a double standard and some doubt as to the efficacy of the method espoused.

Temporal characteristics of the procedure are factors affecting rate and duration of the change. Sulzer (1972) presented a table of the characteristics of procedures for increasing behaviors which indicates that positive reinforcement procedures gradually produce long-lasting results. Modeling procedures can be combined with positive reinforcements to facilitate change and thus reduce the time required.

Bandura (1969, p. 624) said that the change will persist "if the persons establish self-reinforcement systems and receive the social support available from those who share similar behavior norms."

Establishing self-reinforcement occurs as the person gradually assumes the role of the mediator or change agent which permits the person to control his own behavior. In the course the teacher gradually conducted an independent observation system analysis of audio tape for selective personal reinforcement. Social support was available from the other teachers in the school who are also participating in the change program. These teachers could be mutually supportive long after the observer-consultants conclude the program.

Modeling Procedures

Modeling procedures have been used extensively in changing behavior, particularly interpersonal behavior. Much social learning is acquired through modeling cues, either observational clues, as direct observation or pictures, or through verbal clues. Modeling via video tape has been utilized in several studies. Bandura (1969) showed how
children reacted to the modeling of aggressive behavior. Student teacher behaviors in the classroom were altered by use of video tape modeling in a study conducted by Lange (1971). Another study by Brown (1972) used video tape modeling of teachers' classroom behaviors to influence other teachers in the same school to change their classroom behavior.

Verbal clues are used extensively to guide behavior. Bandura (1969, p. 146) stated, "The use of verbal forms of modeling makes it possible to transmit an almost infinite variety of values and response patterns that it would be exceedingly difficult and time consuming to portray behaviorally." Positive responses to students should then be facilitated by verbal modeling procedures. These procedures specify the verbal behaviors to be exhibited. Awareness of what is expected is necessary, but for increased performance some practice in using these behaviors is essential. Early in the program, communication exercises provided the practice.

Models who are effective have certain characteristics such as high competence, or those who possess status-conferring symbols. Age, sex, social power, and ethnic status of the model also influence their effectiveness. Bandura (1969) indicated that utilizing the change agent to model the desired behavior produced good results. The observer-consultant in the program used the positive response patterns in his interaction with the teachers as he worked with them to increase their positive responses to students. As his active participation was phased out, the teachers shared their success in
the classroom via audio tapes and become models for each other. This assisted the maintenance of the acquired behaviors after the change agents had gone. According to Bandura (1969, p. 161), "the combined use of modeling and reinforcement procedures is probably the most efficacious method of transmitting, eliciting, and maintaining social response patterns."

**Reinforcement Procedures of Program**

A reinforcement procedure must be contingent on the desired behavior; and a reliable procedure for eliciting the behavior must be used. Effective reinforcers for teachers in behavior modification programs were specified by Sulzer (1972) as: salaries; raises; promotions; evaluations by supervisors; satisfaction of doing an effective job; approval from students, peers, supervisors, parents, and the community; special assignments; and being consulted as an expert. One study by Baker (1971) asked the teachers to identify some potential reinforcers by rating some contingencies that could be arranged in the school. The teachers were to use behavioral objectives in their teaching. The teachers preferred (1) reduction in class size, (2) additional money, (3) clerical assistance, and (4) released time. The study did say that there had been little research into the use of behavior modification with teachers as the persons to experience the behavior change. McDonald (1973) concurred and pointed out that true contingency management was more rarely utilized with teachers. Other studies (Brown, 1972; Lange, 1971) which utilized modeling procedures indicated that peer and supervisor approval were reinforcers. The reinforcer
must be one that is readily available and within the power of the mediator to apply. Social reinforcement appears to be the most applicable to the Program; however, the teachers received three hours of graduate credit after completion of the program.

Timing of the reinforcement is very important. At first, the best results come from use of immediate reinforcement delivered by smiles, nods, verbal approval, tally marks, results plotted on a graph or other forms of feedback. (Tally marks on the F.I.A.S. were used for this program.) An immediate increase of emitted positive statements by teachers would provide the self-confidence and motivation to continue in the program beyond the starting point. One researcher (Silverman, 1972) wired student teachers for sound, and they heard an immediate reinforcing comment from the observer when they performed in a certain manner. Their performance rate doubled when receiving immediate feedback. Sulzer (1972) reported two additional cases. One case had the observer seated in the back of the room and he would smile and nod to reinforce the teacher. Another used a secretary's notebook which had large numbers on each page in sequence and the pages were flipped each time the teacher performed the desired behavior. The teacher could easily see how many responses he had made at any given point. These methods require an observer to be present, but at least one of these could be used with a limited number of teachers in the program who are experiencing much difficulty or anxiety with positive responses to students. Lack of personnel available on a continual basis during the program restricted the use of such procedures. During the
first week a daily individual feedback session from that day's hour tape of class was planned. This is not as immediate as the previously cited methods, but it allows one person to consult with three teachers for twenty minutes without restricting the consultant to that program entirely.

Since intermittent reinforcement schedules maintain established behaviors more effectively than continuous reinforcement, a change in reinforcement is desirable (Bandura, p. 27). A gradual reduction in the number of times a correct response receives reinforcement slowly shifts the continuous reinforcement into the fixed interval schedule. These reinforcements depend on a specific length of time between reinforcement. Another shift to the variable interval makes the desired behavior less subject to extinction. In the program the first week had reinforcement each day by the observer-consultant on a fixed interval schedule unless the person had great anxiety or showed no increase in positive responses the first two days. In those cases, continuous reinforcement was used. The second week the daily interval was thinned to three times a week and the next week reduced to three times a week on the variable interval schedule. This was reduced to twice a week for the remainder of the program. Hypothetically, as the reinforcement from the observer-consultant decreases, peer approval will increase as teachers are asked to share their successes with each other through listening to desirable responses they made on their tapes. Bandura (1969) indicated that specifically
arranged consequences are discontinued when behavior is brought under the influence of favorable contingencies in the social environment. Not only peer approval, but an improved classroom atmosphere with better communication should result, and become a favorable contingency.

A three-hour meeting held each week with all the teachers in the experimental group involved facilitated awareness of pertinent skills and knowledge. Communication skills, the teacher's role in student self-concept development, and peer influences were discussed. Practice in utilizing communication skills comprised half of each meeting. In addition, these group meetings provided support and encouragement for the teachers. The optimum meeting time was early in the school week. The advantage appeared to be that the teacher is fresh and can be inspired to increase their efforts in the coming week.

A favorable climate for the introduction of the program was instituted by the school principals. Their enthusiasm and support was essential. Other factors which influenced program acceptance are time and place. Many teachers preferred courses in their building with their co-workers. The program incorporated these ideas and the effectiveness of the program was evaluated on the basis of individual improvement. Schedule for the program follows:

**Weekly Meetings**

Appendix (C) gives details on the weekly meetings. The following overview indicates the primary focus of content for the ten-week training sessions for teachers in the experimental group.
Overview

First week. A meeting was held for orientation of the teachers to the activities of the program. The observation chart was within the classroom. The teachers signed up for the observation for one hour. The baseline was taken this week on 30-minute classroom tape with the observation instrument.

Individual consultation with the teacher was held that Friday concerning results and goal planning. A pretest determined the incoming level of communication.

Second week. This meeting introduced communication skills. Their importance in influencing the self-perception, especially adult-to-child communication, was stressed and specific responses were practiced. Exercises in listening skills were incorporated.

Each teacher received feedback from the consultant on positive responses from an analysis of that day's tape. Anyone who wanted to volunteer to share their tape at the next meeting signed up.

Third week. Communication skills continued at this meeting. Exercises in communication utilizing common situations were followed by an observation analysis of a taped session from another school. The group discussed these exercises.

The teachers consulted on Thursday of this week concerning their tapes, and area of empathic responding was incorporated.

Fourth week. This meeting was concerned with the teacher's role in self-concept development. The last half of the meeting was
given to a volunteer who provided his tape to listen to the positive responses made to students. Special attention was given to teacher responses and the dimension of respect was discussed.

Teachers worked with the consultant this week on a variable interval schedule.

**Fifth week.** Peer influence on self-perception was the topic for this meeting. The interactions of peers and the group interaction as an influence on self-concept development was the primary focus. Teachers presented tapes and special attention was given to the peer interaction recorded. The dimension of warmth was discussed.

Teachers worked with the consultant this week on a variable interval schedule.

**Sixth week.** Teachers wrote and evaluated their individual progress. They compared their observation charts from the first and last week. Concreteness and genuineness areas of interpersonal relationships were discussed.

**Weeks 7 through 9.** Consultant and teachers worked together on individual concerns and techniques.

**Week 10.** Consultant worked with entire class discussing the course and summarizing the overall course content. A diagnostic instrument was administered (see Appendix (C).

At the end of the 20-week period, a questionnaire was given the experimental and control group teachers. See Appendix (D)
Questionnaire--was given each teacher in the experimental group to determine motivation for taking class (see Appendix E).

Questionnaire--was given each teacher in the control group to determine motivation for not taking course and also to look at amount of contact, if any, that occurred with the experimental group.

Summary

Behavior modification was utilized to change student behavior in many cases and, recently, studies to demonstrate that teachers' behavior can be changed in this manner also. In the literature, modeling procedures were seen as the preferred method of change used in combination with reinforcement procedures. The program utilized this approach and incorporated it into a familiar course format to facilitate acceptance and implementation.

The following segment is an example of the kind of statements to which the trainee was asked to respond early in the training. Following the statement are four responses which illustrate the four levels of responding according to the global scale. Trainees were told that there is no rapport or relationship between the student and the teacher in this situation.

Helpee Situation (student to teacher)--Paraphrased from Gazda (1977):

"You have it in for me. You always make a fool of me in front of the whole class. You ask me the hardest questions every time just to pick on me. I don't think I have done anything to deserve this."
Paraphrased from Gazda (1977)

Responding Level 1.0. "You're imagining things. You know I treat everyone alike."

Discussion. This response is rated level 1.0 because it discredits the helpee's perception. Whether it is true or not, the helpee indicates that he is being grossly mistreated. The helpee may hear this response as saying to him, "What your eyes and ears are telling you is not true. I know more about what is happening to you than you do." Contradicting the helpee's statement is the surest way to begin an argument, which sharply reduces the chances of developing a helping relationship.

Paraphrased from Gazda (1977)

Responding Level 2.0. "Maybe you're not studying enough."

Discussion. This response is rated level 2.0 because it is premature. A suggestion such as this is simply "hit or miss" at this early stage of the interaction. The helper is making a value judgment without the facts from the helpee to substantiate them. The helpee may think, "Here he goes again--doing the very thing I came in here to talk about! He's always on my back!"

Paraphrased from Gazda (1977)

Responding Level 3.0. "You're upset with me because it seems to you that I'm singling you out in class."

Discussion. This response is rated level 3.0 because it neither adds to nor subtracts from what the helpee said. It acknowledges the obvious surface feeling and conveys the content of the message. Remember that the goal at this stage in the helping relationship is not to solve the problem for the helpee but to communicate that you heard what he said and that you are attempting to understand how he feels. This leads to further self-exploration.

Paraphrased from Gazda (1977)

Responding Level 4.0. "You're unhappy with what has been going on. You think I'm the cause of the problem, but it sounds like you're not completely sure."

Helpee's reply to Level 4.0 response: "I don't know exactly why this is happening, but I do know that I need to do something about it."
Discussion. This response is rated level 4.0 because it contains all the elements of a level 3.0 response and, in addition, it communicates underlying feelings that have been perceived; in this case the idea that the helpee is not completely sure that the problem is entirely the teacher's fault. The additive portion of the response has been underlined. We must know the helpee's response to confirm the accuracy of the additive portion.

In the training groups, emphasis was given to the level 3.0 response initially since level 3.0 is defined as minimally helpful. Responses can also be rated between levels (i.e., 1.5, 2.5, and 3.5) if a clear distinction cannot be made for 1.0, 2.0, 3.0, or 4.0).

Flanders' System of Interaction Analysis

Introduction

The training program was primarily concerned with verbal interaction of teachers. The Flanders Interaction Analysis Scale has several characteristics which make it particularly appropriate for use in this study.

1. Various measures in the Flanders Interaction Analysis system can be applied to the evaluation of a human relations training program.

2. By definition of the categories in the Flanders' System, there will be predictable outcomes on the matrix for those teachers who have adapted any of the human relations training methods into their own way of interacting in the classroom.

3. The Analysis is useful for looking at conditions and tools necessary for understanding and improving teacher behavior in the classroom.
It is based on the assumption that a teacher can be helped to define more accurately his own concept of desirable or ideal teacher behavior and subsequently to modify their behavior in the direction of the ideal. The Flanders' system is concerned with verbal behavior only, primarily because it can be observed with higher reliability than can non-verbal behavior. (Non-verbal communication does take place in the classroom and this course dealt with aspects of it—see Appendix (C)—but its primary emphasis was on the verbal interaction with which Flanders' Interaction Analysis is concerned.)

To evaluate the impact of the teachers on their respective classes, the rater, in this study, used Flanders' system of interaction analysis (Amidon & Flanders, 1963). The rater observed each teacher for a period of 30 minutes with the aid of an audio-tape recorder. In the Flanders' system of interaction analysis, observation of all teacher statements are classified first as either indirect or direct. This classification gives central attention to the amount of freedom the teacher grants to the student. The Flanders' system also provides for the categorizing of student talk. A third major section is that of silence or confusion which accounts for that time spent in behavior other than that which can be classified as either teacher or student talk. All statements that occur in the classroom are categorized in one of these three major sections.

The larger sections of teacher and student verbal behavior are subdivided in order to make the total pattern of teacher-pupil interaction more meaningful. The two subdivisions for teacher verbal
behavior, indirect and direct teacher talk, are further divided into smaller categories. Indirect influence consists of four observation categories: (1) accepting feeling, (2) praising or encouraging, (3) accepting ideas, and (4) asking questions. Direct influence is divided into three categories: (5) lecturing, (6) giving direction, and (7) criticizing or justifying authority. Student talk is divided into two categories: (8) responding to teacher, and (9) initiating talk. Category 10 is reserved for that time when there is silence or confusion in the classroom. All categories are mutually exclusive, yet totally inclusive of all verbal interaction occurring in the classroom.

See Appendix (B).

The definition of each of the categories has been paraphrased from the Flanders' Interaction Analysis Manual and is as follows:

**Category 1, Acceptance of Feeling**

The teacher accepts feelings when he says he understands how the children feel, that they have the right to have these feelings, and that he will not punish the children for their feelings. These kinds of statements often communicate to children both acceptance and clarification of the feeling. Also included in this category are statements that recall past feelings, refer to enjoyable or uncomfortable feelings that are present, or predict happy or sad events that will occur in the future.

**Category 2, Praise or Encouragement**

Included in this category are jokes that release tension, but not those that threaten students or are made at the expense of individual students. Often praise is a single word: "good," "fine," or "right." Sometimes the teacher simply says, "I like what you are doing."
Category 3, Accepting Ideas

This category is quite similar to Category 1; however, it includes only acceptance of student ideas, not acceptance of expressed emotion. When a student makes a suggestion, the teacher may paraphrase the student's statement, restate the idea more simply, or summarize what the student has said. The teacher may also say, "Well, that's an interesting point of view. I see what you mean."

Category 4, Asking Questions

This category includes only questions to which the teacher expects an answer from the pupils. A rhetorical question is not categorized as a question.

Category 5, Lecture

Lecture is the form of verbal interaction that is used to give information, facts, opinions, or ideas to children. The presentation of material may be used to introduce, review, or focus the attention of the class on an important topic. Usually information in the form of lecture is given in fairly extended time periods, but it may be interspersed with children's comments, questions, and encouraging praise. Whenever the teacher is explaining, discussing, giving opinion, or giving facts or information, Category 5 is used.

Category 6, Giving Directions

This category is determined by the degree of freedom that the student has in response to teacher direction. This category includes orders that are given by the teacher and are expected to be followed through by the student.

Category 7, Criticizing or Justifying Authority

A statement of criticism is one that is designed to change student behavior from nonacceptable to acceptable. The teacher is saying, in effect, "I don't like what you are doing. Do something else." Another group of statements included in this category are those that might be called statements of defense or self-justification. If the teacher is explaining himself or his authority, defending himself against the student, or
justifying himself, the statement fits this category. Other kinds of statements that fit this category are those of extreme self-reference or those in which the teacher is constantly asking the children to do something as a special favor to the teacher.

**Category 8, Student Talk-Response**

This category is used when the teacher has initiated the contact or has solicited student statements, when the student answers a question asked by the teacher, or when he responds verbally to a direction the teacher has given. Anything that the student says that is clearly in response to initiation by the teacher belongs in Category 8.

**Category 9, Student Talk-Initiation**

In general, if the student raises his hand to make a statement or to ask a question when he has not been prompted to do so by the teacher, category 9 is used.

**Category 10, Silence or Confusion**

This category includes anything not included in the other categories. Periods of confusion in communication, when it is difficult to determine who is talking, are classified in this category.

A rating was made every three seconds by writing down the category number of the observed interaction. These numbers were recorded in sequence in a column (see Appendix (B)). Marginal notes were sometimes used to explain what had been happening in the classroom. The raters spent 5 to 10 minutes getting oriented to the situation before categorizing the interaction. The rater remained in the back of the classroom for the entire period and did not interact with the supervising teacher or students in any way. A short dialogue which has been rated is shown in Appendix (B).
The raw data were then paired in the following way:

<table>
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<tr>
<th>Pair 1</th>
<th>10</th>
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<tr>
<td>Pair 2</td>
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<tr>
<td>Pair 4</td>
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<td>1</td>
</tr>
<tr>
<td>Pair 7</td>
<td>4</td>
</tr>
<tr>
<td>Pair 8</td>
<td>8</td>
</tr>
<tr>
<td>Pair 9</td>
<td>8</td>
</tr>
</tbody>
</table>

The pairs were entered into a 10 x 10 matrix (see Appendix B). The matrix made the data more manageable by allowing easier interpretation of the numbers. The matrix can be divided into seven areas that effectively describe the kinds of classroom interaction that has taken place (see Figure 1). Area A indicates the teacher's use of students' ideas and acceptance of students' feelings. Area B shows the amount of emphasis upon direct authority—a large number of tallies here may represent a discipline problem or a rejection of the teacher's authority. Area C shows the amount of student talk that is stimulated by the teacher. Area D indicates sustained student interaction without interruption by the teacher. Area E records the amount of indirect response by the teacher to statements by students. Area F gives the amount of direct response by the teacher to statements by students. Area G shows the amount of emphasis on subject matter alone. In addition to investigating the areas listed above, the percentages in each category were tabulated as well as the indirect to direct interaction (I/D) ratio.
Figure 1. Areas of Flanders' matrix.
The I/O ratio is obtained by totaling columns 1 to 4 of the matrix and dividing by the number of tallies in columns 5 to 7. A ratio of less than one classifies a teacher's teaching as direct. A 1.0 I/O ratio means that for every indirect response, the teacher made one direct response.

Another item that was determined was the total percentage of teacher talk. This percentage was obtained by dividing the total number of tallies in columns 1 to 7 by the total number of tallies in the matrix. In addition, categories 3 (accepts ideas), 6 (gives directions), and 7 (criticizes) were investigated. According to Amidon and Flanders (1963), the differences between direct and indirect teachers should be apparent in these particular categories.

**Summary of Categories for Interaction Analysis**

This summary will be found in Appendix (B).

**Statistical Analysis of Data**

Flanders. Univariate analysis of covariance was used in examining the data. The .10 level of significance was used for the purpose of accepting or rejecting the hypotheses under investigation. The univariate analysis of covariance was done considering the number of observations for the number of measures that were to be investigated. Figure 4 illustrates graphically the data analysis. According to Flanders, the differences between an Indirect and a Direct teacher should be found in these three categories (Fig. 2). Figure 2 also shows the seven areas which attempt to describe the kinds of classroom interaction that had taken place.
### (A) Differences between Direct and Indirect teacher

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<th>C</th>
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<tbody>
<tr>
<td><strong>Pre-</strong></td>
<td>3,6,7</td>
<td>3,6,7</td>
</tr>
<tr>
<td><strong>Post-</strong></td>
<td>3,6,7</td>
<td>3,6,7</td>
</tr>
</tbody>
</table>

### (B) Classroom interaction related to areas

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<td><strong>Pre-</strong></td>
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<td>A,B,C,D,E,F,G</td>
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<tr>
<td><strong>Post-</strong></td>
<td>A,B,C,D,E,F,G</td>
<td>A,B,C,D,E,F,G</td>
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### (C) I/D ratios

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<tr>
<td><strong>Pre-</strong></td>
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<td>I/D Ratio</td>
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<tr>
<td></td>
<td>%</td>
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<tr>
<td><strong>Post-</strong></td>
<td>I/D Ratio</td>
<td>I/D Ratio</td>
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<td>%</td>
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Figure 2. Graphic illustration of data analysis. (Flanders Interaction Analysis)
The percentage in each category shown in Figure 2 were tabulated as well as the indirect to direct interaction I/D ratio. The I/D ratio is obtained by totaling columns 1 through 4 of the matrix and dividing the number of tallies in columns 5 through 7. The total percentage (%) of teacher talk is found by dividing the total number of tallies in columns 1 through 7 by the total number of tallies in the matrix.

**Piers-Harris Scale.** A Multivariate Analysis of covariance was used to analyze the data (Figure 3).

Six subscales are identified:

- Factor I Behavior
- Factor II Intellectual and School Status
- Factor III Physical appearance and attributes (related also to status and popularity)
- Factor IV Anxiety
- Factor V Popularity
- Factor VI Happiness and Satisfaction
Figure 3. Graphic illustration of data analysis. (Piers-Harris)
Chapter IV

ANALYSIS OF THE DATA AND DISCUSSION OF RESULTS

Introduction

Part I of this study investigated the effects of a systematic behavior modification program on the verbal interaction of classroom teachers, as measured by the Flanders Interaction Analysis System. Five public elementary schools in Southwest Virginia were used in this study.

Twenty teachers: ten experimental, ten control--were involved in the study. Pre- and Post-observation was utilized consisting of a 20-week interval.

The investigation centered around a 10-week graduate level course (3 credit hours) titled "Theoretical Foundation and Practical Implementation of Self-Concept." This class was designed and instructed by Jerry Dale Jones, who was assisted by Dr. Robert Todd, Chairman of the Committee. This class was primarily concerned with acquisition of skills that teachers could implement into the classroom for enhancing student self-concept (based on the Carkhuff Model, Appendix C).

Statistical Analysis of Data. A univariate analysis of covariance was used in examining the data for the purpose of accepting or rejecting the hypotheses under investigation. Univariate analysis, rather than the multivariate analysis, was considered more appropriate due to the number of observations and the number of measures that were...
investigated. The .10 level of significance was used for the purpose of accepting or rejecting the hypotheses under investigation.

Results of Data (Part I)

Null Hypothesis 1:

There is no statistically significant difference between the experimental and control groups on Flanders' Category 3 (accepts or uses ideas of students).

The difference in acceptance and use of student ideas was tested using univariate analysis of covariance. The data indicated that a significant difference exists. ($F = 23.24; p < .001$, see Table 1.) Thus, the null hypothesis was rejected.

Null Hypothesis 2:

There is no statistically significant difference between the experimental and control groups on Flanders' Category 6 (gives directions).

The difference in acceptance and use of giving directions was tested using univariate analysis of covariance. The data indicated that no significant difference exists. ($F = 1.62, p = .221$, see Table 1.) Thus, the null hypothesis was not rejected.

Null Hypothesis 3:

There is no statistically significant difference between the experimental and control groups on Flanders' Category 7 (Criticizes or justifies authority).

The difference in acceptance and use of criticism and justifying authority was tested using univariate analysis of covariance. The data indicated that no significant difference exists. ($F = 2.41; p = .139$, see Table 1.) Thus, the null hypothesis was not rejected.
Null Hypothesis 4:

There is no statistically significant difference between the experimental and control groups on Area A of the Flanders' matrix on teachers' use of student's ideas and acceptance of student feelings.

The difference in acceptance and use of student ideas and feelings was tested using univariate analysis of covariance. The data indicated that a significant difference exists. (F = 18.26, p = .001, see Table 1.) Thus, the null hypothesis was rejected.

Null Hypothesis 5:

There is no statistically significant difference between the experimental and control groups on Area B of the Flanders' matrix on emphasis placed upon direct authority.

The difference in acceptance and use of the amount of emphasis placed upon direct authority was tested using univariate analysis of covariance. The data indicated that a significant difference exists. (F = 3.22, p = .090, see Table 1.) Thus, the null hypotheses was rejected.

Null Hypothesis 6:

There is no statistically significant difference between the experimental and control groups on Area C of the Flanders' matrix on amount of student talk.

The difference in acceptance and use of the amount of student talk was tested using univariate analysis of covariance. The data indicated that a significant difference exists. (F = 4.02, p = .061, see Table 1.) Thus, the null hypothesis was rejected.
Null Hypothesis 7:

There is no statistically significant difference between the experimental and control groups on Area D of the Flanders' matrix on amount of sustained student interaction without interruption by the teacher.

The difference in acceptance and use of the amount of sustained student interaction without interruption by the teacher was tested using univariate analysis of covariance. The data indicated that no significant difference exists. \( F = .34, p = .568 \), see Table 1. Thus, the null hypothesis was not rejected.

Null Hypothesis 8:

There is no statistically significant difference between the experimental and control groups on Area E of the Flanders' matrix on amount of indirect responses by the teacher to statements by the students.

The difference in acceptance and use of the amount of indirect responses by the teacher to statements by the students was tested using univariate analysis of covariance. The data indicated that a significant difference exists. \( F = 5.01, p = .039 \), see Table 1. Thus, the null hypothesis was rejected.

Null Hypothesis 9:

There is no statistically significant difference between the experimental and control groups on Area F of the Flanders' matrix on amount of direct response by the teacher to statements by the students.

The difference in acceptance and use of the amount of direct responses by the teacher to statements by the students was tested using univariate analysis of covariance. The data indicated that no
significant difference exists. \((F = 1.05, p = .320, \text{see Table 1.})\)
Thus, the null hypothesis was not rejected.

**Null Hypothesis 10:**

There is no statistically significant difference between
the experimental and control groups on Area G of the
Flanders' matrix on amount of emphasis placed on subject
matter alone.

The difference in acceptance and use of the amount of emphasis
placed on subject matter alone was tested using univariate analysis of co-
variance. The data indicated that a significant difference exists.
\((F = 3.76, p = .069, \text{see Table 1.})\) Thus, the null hypothesis was re-
jected.

**Null Hypothesis 11:**

There is no statistically significant difference between
the experimental and control groups on the I/O ratio.

The difference in acceptance and use of the I/O ratio was
tested using univariate analysis of covariance. The data indicated
that a significant difference exists. \((F = 7.41, p = .014, \text{see}
Table 1.)\) Thus, the null hypothesis was rejected.

**Null Hypothesis 12:**

There is no statistically significant difference between
the experimental and control groups on the total percentage
of teacher talk.

The difference in acceptance and use of the total percentage
of teacher talk was tested using univariate analysis of covariance. The
data indicated there is no statistically significant difference. \((F =1.22,
p = .286, \text{see Table 1.})\) Thus, the null hypothesis was not rejected.
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*.10 Level of significance.
DISCUSSION OF RESULTS

The purpose of this study was to determine if there would be a difference in the interaction pattern in the classroom between those teachers who had a human relations training course and those who did not. If there were a difference and the instrument were sensitive enough to reflect the differences, a significant directional difference should result. As the results indicated, seven of the null hypotheses were rejected. These were Category 3—the difference in acceptance and use of student ideas; Area A—the difference of student feelings; Area B—the difference between the amount of emphasis that was placed upon direct authority; Area C—the difference between the amount of student talk; Area E—the difference between the amount of direct response by the teacher to statement by the students; Area G—the difference between the amount of emphasis placed on subject matter alone; and the Indirect/direct ratio.

Category 3 was significant (p < .10) in the direction of aiding the student in thinking through what he has said or done. There was a greater increase in acceptance and use of ideas of students by teachers in the experimental group. This finding most directly reflects the use of empathy dimension of the human relations training model (see Appendix C).

Area A was significant (p < .10) in the direction of emphasis by experimental teachers to indirect influence in the classroom interaction. This emphasis is on accepting and enlarging pupil feelings, to praising pupil behavior, to using pupil ideas and to extending and amplifying pupil statements. The implication here is that the
experimental group of teachers created an atmosphere in the classroom that was one of accepting and enlarging upon pupil feelings.

Area B was significant ($p < .10$) in the direction of less direct influence used by the experimental teachers. In general, a heavy tabulation in this area suggests a focus on the teacher's use of authority. This finding is in line with the human relations theory.

Area C was significant ($p < .10$) in the direction of more student talk stimulated by the teachers in the experimental group. The fact that students of the experimental group teachers were able to interact verbally more than the students of the control group teachers is in line with the human relations training theory. If one person feels comfortable with another person, the verbalization will be increased. The implication here is that the experimental group of teachers created an atmosphere in the classroom that was more accepting; thus creating more student verbal interaction.

Area E was significant ($p < .10$) in the direction of more indirect responses by the experimental teachers to statements by students. This implies the experimental teachers used more positive reinforcement with their students which is in line with the human relations training program.

Area G was significant ($p < .10$) in the direction of emphasis placed by the experimental teachers upon subject matter alone. Both groups seemed to use more time in the content area between pre- and post-observations, with the control group using the most. This could
imply that the experimental teachers were using more of the time in student/teacher interaction.

The I/D ratio was significant (p < .10) in the direction that the experimental teachers spent using indirect responses, within their classroom situation. This implies that the experimental teachers gave more freedom for their students to respond than the control teachers. This, again, is in line with the human relation theory. There was significantly more acceptance of feelings and praise and encouragement in the experimental group. This finding is very encouraging and is reflected in the I/D ratio as being in line with an indirect teacher. The ideas of being indirect in communication is in line with the human relations course offered to the experimental teachers.

Introduction--Part II

The Piers Harris (P-H) Scale, How I Feel About Myself, was used to measure the self-concept of the teachers' students. Ten students who were chosen by a stratified random sample (five boys, five girls) from each class of experimental and control, were administered the scale. Two hundred students were pretested; out of this number twelve students moved from the county leaving a total of 188 students to posttest. This is the number that was dealt with in the analyses.

The P-H scale has six subscales: I. Behavior; II, Intellectual and School Status; III, Physical appearance; IV, Anxiety; V, Popularity; VI, Happiness and Satisfaction. The scale is made up of 80 items, and the higher the score the higher is considered the self-concept of the student. Pre- and posttesting was utilized consisting of a 20-week interval between testing.
Testing procedures for the P-H scale

The investigator talked to the students about the importance of finding out how students really felt about themselves, before distributing the test booklets. The students were encouraged to answer the items as they really felt they were, not as they thought they should be. It was also stressed that the scale was not a test, i.e., there were no right or wrong answers and the results would not affect their school grades. Kindergarten and first grade tests were given individually as recommended in the Manual.

The P-H scale was administered to both control and experimental groups the 1st week prior to any course content. The instructions were read aloud by the investigator. It was stressed that the student indicate their responses by putting a circle around either yes or no for all the 80 items. There should have been no omissions and no double circles, even if some items were difficult to decide. Each item was read twice to the two groups. Each student in all the groups appeared to understand each item and completed the scale with no difficulty. All groups completed the scale within 20-25 minutes. The Kindergarten and First Graders were done individually and required more time. High scores indicated a positive self-concept, whereas low scores indicated a negative self-concept. The pre- and posttests were sent to the Counselor Recordings and Tests, Box 6184, Acklen Station, Nashville, Tennessee to be scored. The investigator received the computer printout on each student within two weeks.
Data Analysis

The first step in the data analysis was to sum the item scores on the six subscales of the P-H scale. The mean scores for each group on each of these subscales were calculated separately.

Multivariate analysis of covariance (MANCOVA) were then performed on the mean scores to determine the differences between the two groups on the linear combination of the adjusted posttest scores on subscales I, II, III, IV, V, and VI. In this analysis, the posttest on the subscales were adjusted for the representative pretest scores. The multivariate analysis of covariance combined the variables in such a way that it maximally separates the two groups of students (experimental and control).

The multivariate analysis of covariance yielded a value for the $\lambda$ statistic (Wilks' lambda) which was then converted to an approximate $F$ statistic. If a significant $F$ value was observed in the multivariate test, the univariate analysis of covariance for each of the subscales, as suggested by Hummel and Sligo (1971), would be inspected to determine which of the subscales were contributing to the significance on the linear combination of the subscale scores. If a univariate $F$ ratio is significant, then the conclusion is that this variable is a significant contributor to the difference between the two groups.

Results of Data (Part II)

The results of the (MANCOVA) indicated that there was a statistically significant difference between the linear combinations of the six subscales of the Piers-Harris Scales ($F = 1.914, p = .081$).
Inspection of the univariate analysis of covariance indicated that there was a statistically significant difference between the two groups on five of the six scales considered individually. These were subscales I, II, III, IV, and VI. A discussion of the univariate test as related to the specific hypothesis follows.

**Null Hypothesis 1:**

There is no statistically significant difference between the experimental and control groups on the P-H subscale I, Behavior.

The difference in acceptance and use of behavior was tested using univariate analysis of covariance. The data indicated that a significant difference exists. ($F = 5.03, p = .026$, see Table 2.) Thus, the null hypothesis was rejected.

**Null Hypothesis 2:**

There is no statistically significant difference between the experimental and control groups on the P-H subscale II, Intellectual and School Status.

The difference in acceptance and use of "Intellectual and School Status" was tested using univariate analysis of covariance. The data indicated that a significant difference exists. ($F = 6.85, p = .010$, see Table 2.) Thus, the null hypothesis was rejected.

**Null Hypothesis 3:**

There is no statistically significant difference between the experimental and control groups on the P-H subscale III, Physical appearance and attributes.
The difference in acceptance and use of physical appearance and attributes was tested using univariate analysis of covariance. The data indicated that a significant difference exists. \((F = 2.78, \ p = .097, \text{ see Table 2.})\) Thus, the null hypothesis was rejected.

**Null Hypothesis 4:**

There is no statistically significant difference between the experimental and control groups on the P-H subscale IV, Anxiety.

The difference in acceptance and use of anxiety was tested using univariate analysis of covariance. The data indicated that a significant difference exists. \((F = 8.58, \ p = .004, \text{ see Table 2.})\) Thus, the null hypothesis was rejected.

**Null Hypothesis 5:**

There is no statistically significant difference between the experimental and control groups on the P-H subscale V, Popularity.

The difference in acceptance and use of popularity was tested using univariate analysis of covariance. The data indicated that no significant difference exists. \((F = 2.57, \ p = .111, \text{ see Table 2.})\) Thus, the null hypothesis was not rejected.

**Null Hypothesis 6:**

There is no statistically significant difference between the experimental and control groups on the P-H subscale VI, Happiness and Satisfaction.

The difference in acceptance and use of happiness and satisfaction was tested using univariate analysis of covariance. The data
indicated that a significant difference exists. \( F = 6.36, p = .013, \) see Table 2.) Thus, the null hypothesis was rejected.

**DISCUSSION OF RESULTS**

The purpose of this study was to determine if there would be a difference in the self concept of the Experimental teachers. As the results indicated, five of the null hypotheses were rejected. These were: Subscales I--Behavior; II--Intellectual and School Status; III--Physical Appearance and Attributes; IV--Anxiety; VI--Happiness and Satisfaction. (See Table 3.)

Subscale I has to do with how the students feel about their \textit{behavior}. An example is: I am often in trouble, or I do many bad things, or I think many bad thoughts.

This could imply that students who are in classrooms with teachers who are functioning at higher levels of interaction skills, interact more with students concerning their behavior in the classroom.

Subscale II relates to \textit{Intellectual and School Status}. For example, I am good in my school work; I am smart; or I am dumb about most things. The implication here is that if students have teachers who are operating with feeling level responses with their students, along with positive interaction, the student could have better feelings about his school environment, and his feelings toward his own capabilities.
Subscale III, relates to Physical Appearance and Attributes. For example: I am good looking; I have a pleasant face; I am strong; or I have a good figure. This area ties in with the empathy model of the Carkhuff model which the experimental teachers were involved with. Teachers trained in human relations training could be operating at higher levels of empathy in that they were more sensitive to individual students.

Subscale IV relates to Anxiety. For example: I cry easily; I worry a lot; I am often afraid; and I get nervous when the teacher calls on me. A high score in anxiety indicates that the respondent describes himself as low in anxiety. The experimental students were analyzed as being lower in anxiety than the control students.

Subscale VI relates to Happiness and Satisfaction. For example: I am a happy person; I like being the way I am. This implies that the students in the experimental group felt significantly happier than the control students. The control students seemed to be less satisfied when comparisons were made from pre- to posttesting.
TABLE (2)
ANALYSIS OF DATA ON STUDENTS RELATED TO THE PIERS-HARRIS SELF-CONCEPT SCALE

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* .10 level of significance.
TABLE 3
UNIVARIATE F-RATIOS OF THE SUBSCALES ON THE PIERS HARRIS SCALE

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Chapter V

SUMMARY AND CONCLUSIONS

Purpose of the Study

The present study was conducted to determine if a systematic behavior modification program for teachers had an effect on teachers' verbal classroom interaction--Part I, and Part II seeks to determine if a change does occur, does it have an effect on the teachers' students' self-concepts.

Rationale for the Study

Sensitivity to other people and to what they are saying is one of the greatest assets a teacher can have. An adequate job is being done today to teach content expertise in teacher education programs. The missing link has been combining communication skills with the content expertise to yield a more effective teacher.

Part I--Flanders Interaction Analysis System

Introduction

The F.I.A.S. was used to determine whether teachers who were enrolled in the human relations course (experimental group) which was conducted as part of this study were more empathetic toward their students and more capable of communicating with their students than were those teachers who did not have the human relations course (the
control group). The Flanders Interaction Analysis System was selected for use in this study due to its accepted reliability and validity in the areas to be covered by this study.

**Selection of Subjects**

Teachers--Experimental group. Ten teachers who were members of the human relations class were chosen at random. These teachers were full time classroom teachers in the Pulaski County School System, Pulaski, Virginia.

Teachers--Control group. Ten teachers were chosen who were not involved in any way with the development program. The ten teachers were chosen from a pool of teachers in the Pulaski City schools.

**Procedure**

Each group of teachers (10 experimental, 10 control) were observed within their classroom situation by the investigator. Each teacher was observed for 30 minutes using the Flanders Interaction Analysis System. A second rater did the Interaction Analysis on a sample of tapes from both experimental and control classes. The second rater was unaware of which tapes were control or experimental.

A rating was made every three seconds and recorded in sequence in a column. The raw data were paired and entered into a 10 x 10 matrix. (see Appendix B, Table 5.)

**Statistical Analysis of Data on the F.I.A.S**

A univariate analysis of covariance was used in examining the
data and the .10 level of significance was used for the purpose of accepting or rejecting the hypothesis under investigation (see Table 1).

Summary of Findings

Twelve hypotheses were tested using different categories, different areas, and different relationships between the experimental and control group data on the Flanders' matrix. Seven of the hypotheses were statistically significant (p = .10). These hypotheses were related to:

- **Category 3**--the difference in acceptance and use of student ideas.
- **Area A**--the difference in teachers' use of student ideas and acceptance of student feelings.
- **Area B**--the difference in the amount of emphasis that was placed upon direct authority.
- **Area C**--the difference in the direction of more student talk stimulated by the teachers in the experimental group.
- **Area E**--the difference in the direction of more indirect responses by the experimental teacher to statements by students.
- **Area G**--the difference in the direction of emphasis placed by the experimental teachers upon subject matter alone.

The **I/D ratio**--the difference in the direction of more indirect communication taking place with the Experimental teachers compared with the Control teachers.
Discussion of Results

Prior to the actual discussion, for purposes of clarity of communication, the following terms are defined:

**Indirect interactions**--are actions taken by the teacher which encourage and support student participation; which accept feelings of students; praises or encourages; and accepts and uses ideas of students.

**Direct interaction**--are actions taken by the teacher which are restrictive in nature. These areas are lecturing, giving directions, criticizing, or justifying authority. There is no give-and-take in this authoritarian type of situation.

The Flanders system preserves a certain amount of information regarding the sequence of behavior. It is simple enough to permit an observer to gather data, and in a reasonable period of time, have the data in a final form for study and analysis.

On the basis of the results of this study, it is concluded that a significant portion of change in the verbal interaction between teachers and students was evident for the experimental teaching group as compared to the control teaching group. The experimental teachers showed changes which

1) were more indirect in their overall interaction pattern,
2) were more indirect in their use of motivating and controlling behavior,
3) used more extended indirect influence,
4) used less extended direct influence, and
5) used more acceptance of student ideas
than the change of control teachers.

Conclusions

The analysis of the classroom observations data indicate that there were statistically significant changes in the classroom environment and practices related to the verbal interaction of the teachers between the first observation and the second.

The teachers who were enrolled in the systematic self-concept course (human relations) seemed to indicate that the techniques used in the 10-week program increased the teachers' sensitivity to their own verbal behaviors. Related to this, the experimental teachers increased their understanding of how their behaviors affect classroom climate and individual pupils. This class seemed to increase the possibilities for the selection of appropriate and alternative teaching in verbal behaviors.

Part II--The Piers Harris Self-Concept Scale

Introduction

This study sought to determine if there was a significant change in the students' self-concept when comparing the students in the experimental teachers' classrooms with the students in the control teachers classrooms. Ten students from each of these experimental and control classes were chosen at random (5 boys and 5 girls). Of the 200 students chosen, only 188 were posttested due to the fact
that 12 moved from the county. The scale given was The Piers-Harris Self-Concept Scale—How I Feel About Myself. Pre- and posttesting was utilized consisting of a 20-week interval. The hypotheses were tested at the .10 level of significance.

Selection of Subjects

Students—Experimental group. This group of students consisted of 10 students from the classroom of each experimental teacher. These students were chosen at random. Each student was administered the Piers-Harris scale as the pre- and posttest.

Students—Control group. This group of students consisted of 10 students from the classroom of each control teacher. These students were chosen at random. Each student was administered the Piers-Harris scale as the pre- and posttest.

Statistical Analysis of Data on the P-H Scale

The results of the multivariate analysis of covariance indicated that there was a statistically significant difference between the two groups on the linear combination of the adjusted posttest subscale scores ($F = 1.914, p = .081$). Subsequently the univariate analysis of covariance for each of the six subscales was inspected to determine which of the subscales were contributing to the difference between the two groups. These multivariate tests served as the basis for testing the specific hypotheses related to the six subscales (see Table 2).
Summary and Conclusions

The findings of this study indicated significant differences in the self-concept of students who had the teachers from the experimental group. It was found that students whose teachers were in the experimental group which utilized a more indirect approach, had significantly higher self-concepts on five of the six subscales tested. There does appear to be sufficient evidence to suggest that the experimental group students were more positive in the realm of self-concept as measured by the Piers-Harris scale.

There are indications that in the subscales of (I) Behavior; (II) Intellectual and School Status; (III) Physical appearance; (IV) Anxiety; and (VI) Happiness and satisfaction, the students of the experimental teachers had more positive self-concept gains. This finding tends to support the claim that a program in human relations training is a factor in increasing self-concept of students. Also, it indicates that this course was successfully implemented and achieved some positive results.

It is hypothesized that for students, self-concept gains may be a consequence of having the meaning of their experiences understood and responded to in a facilitative manner.

Conclusions

The findings of this investigation indicate a positive relationship exists between the course in human relations development and the verbal interaction of the experimental teachers in the direction of being more indirect.
In the Flanders Interaction Analysis System portion of the study, of the twelve hypotheses tested, seven were rejected at the .10 level of significance. It was concluded that a course in human relations training for in-service classroom teachers makes a difference in the nature of the verbal interactions of teachers with students. This study offers some evidence that a positive relationship exists between human relation training and teacher's subsequent indirect verbal interaction in the classroom. If a school system wants teachers who are less direct, the school system should consider the merits of offering courses in human relations training to its classroom teachers.

In the Piers-Harris scale section of the study, five of the six subscales relating to the self-concept of the students indicated that there had been improvement in the way the students felt about themselves compared to the students whose teachers were not enrolled in the human relations training course.

**Limitations**

In all research there are some areas that are not as defensible as others. In this study, due consideration must be given to the effect of using one observation in the classroom rather than several for pre- and post-observations. However, rigidly defined criteria and the structure of the observational system should, and were assumed to, give high reliability and objectivity to the study.
The Experimental teachers were aware of what the observer was looking at, whereas the Control teachers were not aware of the purposes of the observations, indicating desired responses from the Experimental teachers.

Another limitation in this study could have been not looking at the achievement of students, not seeing if this self-concept gain had a relationship on academic achievement of the students.

**Recommendations**

The completion of this study has opened the door to further research and it is on that basis that the following recommendations are made:

1. The sample size should be increased.
2. There is a need for longitudinal studies on the long-term effects of teacher's verbal interaction after receiving a human relations course similar to the one offered in this study. A follow up of this study several years later would provide more sound evaluation.
3. There is a need for evaluation which focuses on variables which were not associated with this course format such as the effect of this program on other areas--creativity, motivation, self direction, and social awareness.
4. If self-concept is well established in early elementary school, there could be a need to begin at the very outset of the school experience to work with skills and techniques of enhancing self-concept of students.
REFERENCES


, & N. A. Flanders. The Role of the Teacher in the Classroom and Improving Teacher Classroom Behavior, Rev. Ed. Minneapolis: Association for Productive Teaching, 1971.


, J. E. Brewer, & M. F. Reed. "Studies of Teachers' Classroom Personalities, III: Follow-up Studies of the Effects of Dominative and Integrative Contacts on Children's Behavior." Psychological Monographs, 1946, No. 11.


Cogan, M. L. "Theory and Design of a Study of Teacher-Pupil Inter-

"The Behavior of Teachers and the Productive Behavior of
Their Pupils." Journal of Experimental Education, 1958, 27,
89-124.

Combs, A. W., D. L. Avila, & W. W. Purkey. Helping Relationships:
Basic Concepts for the Helping Profession. Boston: Allyn and
Bacon, 1971.

Coopersmith, S. The Antecedents of Self-Esteem. San Francisco:

Cox, S. H. "Family Background Effects on Personality Development and
Social Acceptance." Unpublished Ph.D. dissertation, Texas Chris-
tian University, 1966. Summarized in Peer Acceptance-Rejection
and Personality Development, Project N. OE 5-0417, Contract No.

Cronbach, L. J. Essentials of Psychological Testing. 2nd ed. New

Dailey, Frances M., and James A. Phillips, Jr. Teacher Verbal Be-
havior and Classroom Social Structure. U.S., Educational Resource
Information Center, ERIC Document ED 075 389, 1973 (15).

Davitz, J. R. The Communication of Emotional Meaning. New York:

Desselle, R. E. "Experimental Learning Program Effects on Classroom
Behaviors." Unpublished Ph.D. dissertation, University of Georgia,
1974.

Dixon, W. R., & W. C. Morse. "The Prediction of Teaching Performance:
Empathic Potential." Journal of Teacher Education, 1961, 12,
323-29.

Education Commission of the States and National Assessment of Educa-
tional Progress. Lay and subject matter reviews of National Assess-
ment. Denver, Colorado: Basic Skills Objectives Conference,


Flanders, N. A. "Personal-social Anxiety as a Factor in Experimental Learning Situations." Journal of Educational Research, 1951, 45, 100-110.


APPENDICES
APPENDIX A

PIERS-HARRIS INFORMATION
Introduction (from P-H Manual)

It can be administered and scored by responsible, educated nonpsychologists, but should be interpreted only with the aid of someone knowledgeable in measurement and statistics, psychology of adjustment, and self-theory. The Scale was designed primarily for research on the development of children's self-attitudes and correlates of these attitudes.

As the manual points out, a pilot study established that the children understood the items, and that the inventory could be completed in approximately 30-35 minutes. Following the administration, items answered in one direction by fewer than 10% or more than 90% were inspected and, in most cases, dropped. However, since the instrument was designed to identify cases of children who are deviant, as well as to establish norms, a few items such as "my parents love me" were temporarily retained even though answered "yes" by the great majority of children. One hundred forty items remained, including the "Lie" scale.

Reliability (From P-H Manual)

Most of the reliability data come from the original standardization study which used the 95 item scale.

Internal consistency. To judge the homogeneity of the test, the Kuder-Richardson Formula 21, which assumes equal difficulty of items, was employed with resulting coefficients ranging from .78 to .93. This formula, which is represented to be an underestimate as compared with Formula 20, reflects the size of the standard deviation, with the resultant lowering of the estimate for tenth-grade girls. As a check, the Spearman-Brown odd-even formula was applied for half the Grade 6 and Grade 10 sample, with resulting coefficients of .90 and .87, respectively.

Validity

An attempt was made at the outset to build content validity into the scale by defining the universe to be measured as the areas about which children reported qualities they liked or disliked about themselves (Jersild, 1952). Items were written to cover all these areas but during the item analysis non-discriminating items were dropped, so that the final scale no longer covers every area to the same degree. The factor analysis described later indicates that factors from the retained items cut across some of the original Jersild categories but reflect on emphasis on his last two groups, i.e., "Just Me,
Myself", and "Personality, Character, Inner Resources, Emotional Tendencies." These presumably are a better reflection of a child's general self concept than such narrower categories as "Enjoyment of Recreation" or "Special Talents."

**Stability**

It should be remembered that test-retest reliability coefficients which are calculated on a lumping together of several ages or grades, or over a shorter period of time, or on any sample with increased variability, can be expected to be higher.

The scale is thus judged to have good internal consistency and adequate temporal stability. This does not mean, however, that individual changes in scores, or group differences can be taken at face value.

**Use in the Classroom**

It is strongly recommended that the scale not be used for comparisons between children, or other individual use, unless great care is paid to the standard error of measurement, and, in the case of retesting, to the typically-found higher score on retest. In the case of group retesting after some experimental program, a control group is essential.

**Terminology**

Attitudes are not only descriptive but also evaluate. The Piers-Harris items are scored in a positive or negative direction to reflect this evaluation dimension. A high score on the scale is presumed to indicate a favorable self-concept, which thus becomes interchangeable with the term "self-esteem," or "self-regard."

**Reviews of the Scale**

The third major review is contained in Measures of Social Psychological Attitudes, Rev. Ed., edited by Robinson and Shaver (1973). In the Measures of Self-Esteem chapter by Rick Crandall, the P-H was the most highly recommended scale for children. Positive and negative aspects of the P-H were noted, and for future
researchers, some useful suggestions were made of behaviors which might be expected to relate to self-concept, such as assertiveness, conformity, risk-taking, expression of aggression, and optimism. Investigation of these relationships might help develop further evidence of construct validity for the scale.

Finally, Shreve (1973) found the P-H, among several self-concept measures available to researchers and school personnel, to show the greatest promise according to criteria posed in the Technical Standards for Educational and Psychological Tests (French & Michael, 1966).
Table 4
Reliability Data from P-H Manual

<table>
<thead>
<tr>
<th>Grade</th>
<th>Sex</th>
<th>N</th>
<th>Index</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pennsylvania Public Schools (Piers-Harris, 1964: 95 items)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Girls</td>
<td>56</td>
<td>Kuder Richardson</td>
<td>.90</td>
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<tr>
<td>3</td>
<td>Boys</td>
<td>63</td>
<td>Kuder Richardson</td>
<td>.93</td>
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<tr>
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<td>Kuder Richardson</td>
<td>.89</td>
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<td>.90</td>
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<td>Kuder Richardson</td>
<td>.78</td>
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<td>Boys</td>
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<td>Kuder Richardson</td>
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<td>6</td>
<td>Both</td>
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<td>Spearman-Brown</td>
<td>.90</td>
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<td>Both</td>
<td>58</td>
<td>Spearman-Brown</td>
<td>.87</td>
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<td>Both</td>
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<td>4 month Test-Retest</td>
<td>.72</td>
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<td>66</td>
<td>4 month Test-Retest</td>
<td>.71</td>
</tr>
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<td>Both</td>
<td>60</td>
<td>4 month Test-Retest</td>
<td>.72</td>
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<td></td>
<td></td>
<td>Oregon Public Schools (Wing, 1966: 80 items)</td>
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<td>Both</td>
<td>244</td>
<td>2 &amp; 4 month Test-Retest</td>
<td>.77</td>
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</tbody>
</table>
APPENDIX B

RATER RELIABILITY AND INFORMATION ON FLANDERS INTERACTION ANALYSIS
Raters

Two raters were used in this study. Both had experience using the F.I.A.S. One rater is a faculty member in the Math Department at Virginia Polytechnic Institute and State University. The other rater was the instructor of this program (class). The faculty member rater did not know if Ss were experimental or control. This rater was given four tapes at random and was asked to analyze 3-minute segments of the tapes. Raters' reliability was established on the basis of procedures suggested by Scott's (1955) coefficient. Scott's method is unaffected by low frequencies and is more sensitive to higher levels of reliability (Amidon, 1967).

Scott calls his coefficient "pi" and it is determined by the formula below:

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

Summary

Scott coefficient of .92 exceeded the minimum reliability level of .85--was obtained as a measure of agreement between the two coders used in this study. It was concluded that valid inferences from the data analyses could be made.
### TABLE 5

RATER RELIABILITY

<table>
<thead>
<tr>
<th>Category</th>
<th>Rater #1</th>
<th>Rater #2</th>
<th>% A</th>
<th>% B</th>
<th>% Diff.</th>
<th>Average of A and B %</th>
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<td>17</td>
<td>15</td>
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</table>

Average of A and B %

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<th>Rater #2</th>
<th>% A</th>
<th>% B</th>
<th>% Diff.</th>
<th>Average of A and B %</th>
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<tbody>
<tr>
<td></td>
<td>65</td>
<td>63</td>
<td>6.008</td>
<td>23.3453</td>
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</tbody>
</table>

\[ \pi = \frac{P_o - P_e}{100 - P_e} = \frac{(100 - 6.008) - 23.3453}{76.6547} = \frac{70.6467}{76.6547} = 0.9216 \]

**Note:** A Scott Coefficient of .85 or higher is a reasonable level of performance.

\[ \pi = \text{the amount that 2 observers exceeded chance agreement divided by the amount that perfect agreement exceeds chance.} \]
Examples of Dialogue Rating

Sixth Grade Class

Teacher: "Okay, please open your social studies books to page 5."

Observer classifies this as a 6, followed by a 10 because of the period of silence and confusion as the students find the page.

Teacher: "James, we are all waiting for you. Will you please turn your book to page 5?"

Observer records a 7 and a 6.

Teacher: "I know now that some of us had a little difficulty with and were a little disturbed by the study of this chapter yesterday; I think that today we are going to find it more exciting and interesting."

Observer records two 1's; reacting to feeling.

Teacher: "Now, has anyone had a chance to think about what we discussed yesterday?"

Observer records a 4 for a question.

Student: "I thought about it, and it seems to me that the reason we are in so much trouble in southeast Asia is that we haven't really had a chance to learn to understand the ways of the people who live there."

Observer records three 8's.

Teacher: "Good, I am glad that you suggested that, John. Now let me see if I understand your idea completely. You have suggested that if we had known the people better in southeast Asia, we might not be in the trouble we are in today."

Observer records a 2, followed by two 3's.

---

<table>
<thead>
<tr>
<th>EXERCISE 1</th>
<th>EXERCISE 2</th>
<th>EXERCISE 3</th>
<th>EXERCISE 4</th>
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**Figure 4. EXAMPLE OF COMPLETED MATRIX (10 X 10)**

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<td><strong>TOTAL</strong></td>
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<td>26</td>
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<td>30</td>
<td>176</td>
<td>46</td>
<td>3</td>
<td>28</td>
<td>51</td>
<td>178</td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>1%</td>
<td>4.3%</td>
<td>2.6%</td>
<td>5%</td>
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<td>7.7%</td>
<td>0.5%</td>
<td>4.7%</td>
<td>15.2%</td>
<td>29.7%</td>
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</table>

**Legend**

1 = Accepts feeling  
2 = Praises, encourages  
3 = Accepts student ideas  
4 = Asks questions  
5 = Lectures  
6 = Gives directions  
7 = Criticizes  
8 = Student talk - Response  
9 = Student talk - Initiation  
10 = Silence or confusion
## TABLE 6
Summary of Categories for Interaction Analysis

<table>
<thead>
<tr>
<th>INDIRECT INFLUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ACCEPTS FEELING: accepts and clarifies the feeling tone of the students in a nontthreatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included.</td>
</tr>
<tr>
<td>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 &quot;uh huh&quot; or &quot;go on&quot; included.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>4. ASKS QUESTIONS: asking a question about content or procedure with the intent that student answer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIRECT INFLUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. LECTURES: giving factors or opinions about content or procedure; expressing his own ideas; asking rhetorical questions.</td>
</tr>
<tr>
<td>6. GIVES DIRECTIONS: directions, commands, or orders with which a student is expected to comply.</td>
</tr>
<tr>
<td>7. CRITICIZES OR JUSTIFIES AUTHORITY: statements intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>STUDENT TALK</th>
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<tbody>
<tr>
<td>8. STUDENT TALK-RESPONSE: talk by students in response to teacher. Teacher initiates the contact or solicits student statement.</td>
</tr>
<tr>
<td>9. STUDENT TALK-INITIATION: talk by students, which they initiate. If &quot;calling on&quot; student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.</td>
</tr>
</tbody>
</table>

| 10. SILENCE OR CONFUSION: pauses, short periods of silence, and periods of confusion in which communication cannot be understood by observer. |

**Source:** Amidon & Flanders, "The Role of the Teacher in the Classroom." A Manual for Understanding and Improving Teacher Classroom Behavior.
Flanders' Interaction Analysis Scale (FIAS) Manual

The following were used with experimental teachers and are based on the FIAS Manual.

Questions Useful to a Teacher in Interpreting His Own Matrix

1. Do I do too much of the talking in the classroom?
2. Am I typically a direct or indirect teacher?
3. How do I react to student verbal behavior?
4. How much time do I spend in lecturing?
5. Do I spend enough time in the extension of student ideas?
6. Do students tend to resist my influence?
7. Do I accept, clarify, and use student emotion?
8. How effectively do I use praise?
9. How effective am I in communicating subject matter to my pupils?
10. How effectively do I use criticism in my teaching?
11. Is there adequate pupil participation in my classroom?

Interaction Analysis and Behavior Change

1. Collect observation data about the existing classroom behavior pattern.
2. Analyze the pattern in light of your own goals, determining what seem to be strengths and weaknesses.
3. Experiment with specific areas of the matrix that seem to present problems, substituting alternative behavior for that previously used.
4. Evaluate through further observation data the success in specific attempts to change your teaching pattern.

5. Continue to work on unchanged portions of the matrix in which change is considered desirable.
APPENDIX C

COURSE FORMAT
TO: All Pulaski County Teachers

FROM: Harry N. Fogle, Director of Instruction
Pulaski County School Board

SUBJECT: In-service Classes - Fall, 1977

The following classes will be offered if there is sufficient enrollment. There will be no tuition charge to teachers under contract.

Please complete and return to your principal by September 2, 1977.

DETACH HERE

☐ EDCI 542 Math for Elementary Teachers - 3 semester hours
☐ CEED 634 Metric Education - 1 semester hour
☐ CEED 558 Holt Mathematics Workshop for Second Grade Teachers
   1 semester hour
☐ CEED 558 Holt Mathematics Workshop for Third Grade Teachers
   1 semester hour
☐ Vocational Mathematics for Teachers - 1 semester hour
☐ EDCI Theoretical Foundation and Practical Implementation of Self Concepts - 4-7 pm.
   - 3 semester hours
☐ I do not plan to take an in-service class during the Fall, 1977.

__________________________
Name

__________________________
School
Table 7
Course Outlined for a 10-Session Human Relations Training Course

Session 1
Pretesting to determine the incoming level of communication. Overview and theoretical rationale for the model to be presented.

Session 2
Exercises in listening. This session involves learning to be more aware of both what other people say and how they feel. It includes discrimination of primary surface and underlying feelings of others. The stimulus situations will be hypothetical ones that are relevant to the population.

Session 3
Introduction of the dimension of empathy. Definitions of the levels of empathic responding. Practice in responding with empathy.

Session 4
Introduction of the dimension of respect. Definitions of the levels of respect. Being respectful in interpersonal relationships. At this point, the input for roleplaying in the group will ideally be made by a group member who will present a personally relevant situation that can be dealt with in the group, using the model as a guide for responding.

Session 5
Introduction of the dimension of warmth. Definitions of the levels of warmth. Practice in being aware of the nonverbal messages which are communicated during interpersonal interaction. Opportunity for more roleplaying of problem situations introduced by the group members.

Session 6
Introduction of the dimensions of concreteness and genuineness. Definitions of the levels of these two dimensions. Practice in the appropriate use of concreteness and genuineness in interpersonal relationships.
Session 7  
Teacher-consultant in classrooms (individual needs and concerns).

Session 8  
Teacher-consultant in classrooms (individual needs and concerns).

Session 9  
Teacher-consultant in classrooms (individual needs and concerns).

Session 10  
Posttesting to determine effectiveness of training. Putting it all together.
WEEKLY MEETINGS
(Overview of Weekly Class Meetings)

First Meeting

This class was concerned with registration of class members by instructor using the university extension procedures. Specifically, this meeting dealt with orientation of the teachers to the activities of the program. A discussion was held concerning the ten teachers who would be chosen at random, and the requirements involved with those teachers along with the responsibilities for each class member including testing and interaction analysis. Each teacher for the next meeting would be responsible for one article taken from the literature that related to the area of self-concept. This article would be shared at the next week's meeting. The forty teachers were divided up into groups. The groups consisted of five groups of seven and one group of five. The large groups were given the responsibility of choosing the members of their groups. The groups remained the same throughout the ten week training period.

Second Meeting

The instructor sold the text books to be used in the course:

2. 100 Ways to Enhance Self-Concept in the Classroom: A Handbook for Teachers and Parents, by Canfield and Wells (1976). This book is intended to be a practical book. It contains over one-hundred techniques which are designed to enhance one's sense of identity and self-esteem and which have been classroom tested at all grade levels from kindergarten through college.

The two books were ordered through the Virginia Polytechnic Institute and State University and sold by the instructor in Pulaski County.

An overview of the Carkhuff model was given and the "Level 3" response in communication was set as one goal for the class, to be reached by the end of the ten week training session.

Each member wrote a personal definition of self-concept, and each definition was shared in the small group, after which a working definition was suggested to the large group. The one used was by Combs (1971, p. 43) who wrote, "Once established, the self-concept thereafter provides a screen through which everything else is seen, heard, evaluated, and understood." Thus, if our self-structure is generally positive, it engenders self-respect and confidence, while a generally negative self-image leads to feelings of inadequacy and a lack of confidence. The perception we form of ourselves largely determines what we can do and how we react to life in general.

A discussion followed concerning the small groups' roles that would be played during the course. Each member in the small group
would break up into triads where each member would rotate roles after working through activities. The three roles would be: (1) helper, (2) helpee, and (3) observer. These three roles were discussed. The accepted goal of helping (helper) would be to generate more appropriate behavior. The helpee would be the person seeking some kind of assistance at a given moment of time. The observer would be the person who would give some type feedback on the interaction or communication that took place. The three roles were discussed in the large group. The instructor then spent time with each small group pointing out the responsibilities within the small groups. Videotape was used so that each member in the small group could evaluate his/her role at the completion of the activity. An example of this process is shown in Figure 1.

Carkhuff (1969a) theorized that training in human relations skills, in general, is best accomplished through a three pronged approach: (i) experimental, (2) didactic, and (3) trainer modeling. The solid experimental base is developed if the circumstances surrounding the training are facilitative. Specifically, trainers must be perceiving and responding at high levels, and they must manage the group of trainees so that they provide experiences that are facilitative to one another. Trainees must experience an atmosphere where they are understood and accepted and where they can practice extending themselves through experimenting with varying behaviors.

Gazda (1977) points out four propositions which were discussed in the large group (p. 37):
Proposition 1. Both parties involved in an interaction are modified by the interaction. This means that the response produced by person A from person B will affect the next response of person A. That is to say, we are being influenced while we are influencing others.

Proposition 2. Responses may be nonverbal, verbal, or a combination of both.

Proposition 3. Nonverbal responses are more likely to transmit the real message, since they are often involuntary reactions transmitted from the autonomic nervous system. Mehrabian (1968) has shown that facial expression alone transmits over 55 percent of the meaning of a message. Often, one communicates more than he/she may intend by his/her body posture, gestures, tone of voice, eye contact, and the like. Nonverbal communications may speak so loudly that one's verbal messages are scarcely heard.

Proposition 4. Verbal responses or messages are generally composed of two parts: content and affect. Content refers to the topic under discussion; whereas affect tells how one feels about the topic. For example, a child who has just been struck and hurt by a playmate says, "Sally hit me; I hate her!" The topic is Sally's hitting. The "affect" or feeling expressed is hurt combined with anger.

Assignment at End of the Session

Each teacher was responsible for using one activity in Canfield and Wells book, 100 Ways to Enhance Self-Concept in the Classroom. This activity was written on a 4 x 6 index card specifying the activity used along with the teacher's evaluation of the activity.

Training in perceiving feelings was emphasized. A 30-minute tape was assigned each teacher. This tape was concerned with the teachers' verbal interactions with students within their classroom.
Work in a triad (helper-helpee-observer)--you will play each role.

Behavioral Objective--you should be able to write helper responses in a natural style at level 3.0.

Ideas from Gazda, 1977, p. 68

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Role 1

Student to student: "I used to really enjoy going to the coffee house and sitting around talking with the people there, but it all seems so trivial to me now."

Helper responses

Formula: You feel ___________ because ________________

Role 2 (switch roles)

Student to teacher: "I work so hard to get an A in your class, but you don't like me enough to give it to me."

Helper responses

Formula: You feel ___________ because ________________

Role 3 (switch roles)

Teacher to principal: "That Sanders' girl is really driving me up the wall. I don't know how to deal with her attitude."

Helper responses

Formula: You feel ___________ because ________________

---

Figure 5. Small group roles with activities presented by instructor.
Third Meeting

In small groups, each teacher shared activity used and discussed positive and negative evaluations of each activity.

Various teachers' styles of communication were delineated.

One teacher in each group volunteered to share his/her tape.

Behavioral Objective--Paraphrased from Gazda (1977, pp. 44-45)

The trainee should be able to classify helpee requires for assistance according to the four areas outlined: (1) requests for information, (2) requests for action, (3) requests for inappropriate interaction, and (4) requests for understanding involvement.

1. Request for information. In this type of request the helpee is asking the helper for something. For example, a student might ask, "Will you let me know where I might find some information on locomotives?" Information involves a verbal response only.

2. Request for action. This request requires some physical movement on the part of the helper. For example, a student might say, "Would you please hand me a pencil? Mine is broken." This request is simple and straightforward; its meaning is obvious. An appropriate helper response would be to hand the student a pencil.

3. Request for inappropriate communication (Gazda, 1977, p. 42). There are several kinds of conversations that are potentially damaging to the person talking, to persons not present, or to the organization. This type of interaction is inappropriate, and it can become destructive and disruptive. Included in this category are: (1) gossip, (2) rumor, (3) inordinate griping, (4) solicitation of a dependency relationship, and (5) encouragement of activities that are counter to the benefit of other persons or the organization, e.g., a teacher attempts to turn one teacher against another.

For example, a sixth grade student might say, "I'm always glad to come into this pod, Miss Jones is so boring." Engaging in a conversation such as this could lead to either talking
negatively about a person or persons not present or to defending others, perhaps without firsthand knowledge. Either way of responding would be ineffective.

Gazda (1977, p. 43) states: "The best response to an inappropriate helpee statement is to communicate your preference by not reinforcing that kind of conversation." This response must not offend a friend and helper. Gazda says this is much more easily proposed than practiced! Even the act of listening without comment may create problems. Gazda (p. 43) states, "... without comment to inappropriate communication reinforces the speaker's behavior positively, and he/she may infer that you agree with him/her. If you encourage inappropriate behaviors, even by silence, you may lose your opportunity to be a helper." An example of a response to a person who is trying to involve you in gossip is as follows: Helpee: "Did you hear about my tenth grade teacher going out with our principal, it makes me mad that these things are going on." Helper: "I feel you're upset about the teacher going out with the principal, but I would rather not get into a discussion about that situation. It sounds interesting but I have bad feelings when I talk about those kinds of situations."

4. Request for understanding/involvement (Gazda, p. 42). This category has to do with conversations in which the helpee's feelings are of prime importance. Here we see the helpee is seeking a relationship with another person rather than direct answers. A request for involvement may be explicit. "I've been wanting to talk to you about this concern I have." Or, for example, a student might say, "I thought school was a nice place to be, but recently I have second thoughts." This student has verbalized a real concern and the most appropriate response at this point is to listen fully and to respond to that concern with understanding and caring.
Introduction of the Dimension of Empathy (Gaxda, p. 62)

Gazda (p. 62) states helpee's feelings must not only be understood, but the helper's understanding of the feelings must be put into words. The helper's first step in communicating with empathy is to listen carefully to what helpees are saying about how they feel because of what is happening to them. The second step is thinking of words that represent the helpees' feelings and the helpees' situation. The third step is to use those words to tell helpees that you understand their feelings and their situation.

Assignment

Classify the following communication types.

A 20 minute audiotape with small groups of students is to be used in the next class. Each teacher working in small groups was responsible for keying in on feeling levels and responding appropriately. (See Empathy Scale)
Training in Perceiving Feelings (Gazda, 1977, pp. 60-61)

The following activities were worked through the small group, and a large group discussion followed.

"Since I lost the weight, I feel like a million dollars. It's great!"

Surface: ____________________________________________
Underlying: ____________________________________________

"I thought you'd never get here! What took you so long?"

Surface: ____________________________________________
Underlying: ____________________________________________

"Sure, I could get ahead too, if I pulled the kind of tricks she does."

Surface: ____________________________________________
Underlying: ____________________________________________

"How can I ever face them again? They will be laughing about my mistake for years."

Surface: ____________________________________________
Underlying: ____________________________________________

"Everyone else is having fun after class, but I always seem to go home by myself."

Surface: ____________________________________________
Underlying: ____________________________________________

"Don't crowd me!"

Surface: ____________________________________________
Underlying: ____________________________________________
Task: Classifying Communication Types (Gazda, 1977, pp. 44-45)

The triad was used as a technique in working with this activity.

__1. Principal to teacher: "Mrs. Johnson is not here today. Will you take her bus duty?"

__2. Teacher to teacher: "Sometimes John Smith (student) really irritates me with his questions."

__3. Student to teacher: "You know, you're a really neat teacher. You're so much different from Mr. Jones. He always gives us too much homework to do. Do the other teachers like him?"

__4. Student to teacher: "I just don't understand these algebra problems. Would you do an example and explain it for me?"

__5. Student to teacher: "Would you sign this class excuse for me? I have to study for a test tomorrow and don't have time to sit in Mrs. Haynes' class and listen to her babble."

__6. Principal to teacher: "I seem to make all the wrong decisions. Every time I try to please someone, it makes someone else angry."

__7. Teacher to teacher: "Do you have a lot of students in your classes this year? It seems like I have twice as many as usual."

__8. Student to counselor: "Hey, man, I hear you've been doing some counseling with Stevie (student). He's really a messed-up kid, isn't he? What kind of problems does he have?"

__9. Student to teacher: "I'm lost in this big school. Where's the cafeteria?"

__10. Teacher to custodian: "Can you get me a new chair for my desk? The one I have is just too short for me."

Check: 1. RA  6. RUI
      2. RUI  7. RI, RUI
      3. II   8. II
      4. RA, RI 9. RI
      5. II, RA 10. RA

Defining Areas

I = RA = Request for action
II = RUI = Request for understanding/involvement
III = RI = Request for information
IV = II = Request for inappropriate intention
Illustration of Empathy Scale (Gazda, 1977, p. 63)

This activity was discussed with the large group and individual concerns were brought out.

Teacher to teacher: "The harder I try to get along with the new math teacher, the more I feel that he just wants to be left alone."

Level 1.0 "Don't you have a minor in math?"

Ignores surface feelings.

Level 2.0 "That's too bad."

Only a partial awareness of the helpee as a person.

Level 3.0 "I guess it's kind of disappointing when you make an effort to be friendly and it's not accepted."

(1) It includes a communication of a primary surface feeling (disappointment); (2) it includes the essence of the content; and (3) it neither adds to nor subtracts from the helpee's statement.

Level 4.0 "It's upsetting not to be responded to positively. Although you are only referring to this one incident, it sounds like maybe you are questioning your ability in general to get along with people."

This response is rated level 4.0 because it goes beyond the present awareness, or at least the present verbalization, of the helpee. In order to be rated level 4.0, however, a response must be validated by the helpee. For
example, if the helpee responded, "I guess maybe things have not been going well in that area for quite some time," the underlying idea of the helper would have been validated. An attempt at level 4.0 that is not validated is generally a level 2.0. For example, if the helpee had responded, "No! This is the first time anything like this has ever happened," the helper has attempted to go beyond, but the response was not accepted by the helpee. Consequently, the response would be rated level 2.0.

The instructor role-played the following situation in the large group:

Role Play

Teacher to teacher: "I really like my job here and I like the people I work with, but I can't seem to please the principal. The harder I work, it seems, the more she expects me to do."
Fourth Meeting

To begin this session, as a large group we discussed and worked through a refresher exercise, the Empathy Scale, stressing Level 3 responses. The following is a short re-run covering some of the points emphasized from Gazda, 1977, p. 66:

Several helper responses are given to the helpee situations. Rate each on the Empathy Scale. Place your rating (1, 2, 3, 4). If you need some refreshment check last week's handout that gives definitions of the empathy scale. Place your rating (1.0, 2.0, 3.0, 4.0) in the blank to the left of each helper response, and then check your choices against the answer key at the end of the exercise.

Educator to educator: "I really feel like my family is being short-changed. With graduate school at night, plus all the other things I have to do around the house, I don't have much time at all to just be with my family."

1. "You seem pretty perplexed because you feel that you are short-changing your family due to your responsibility of working all day and going to school at night. This doesn't allow enough time with your family."

2. "You feel like you are spreading yourself too thin, taking on too much and missing out on your family life."

3. "You seem concerned that your relationship with your family is not all it could be due to your many activities."

4. "Rearrange your activities so you can let some things go."

1. 3.0  2. 2.0  3. 3.0  4. 1.0
The dimension of respect is introduced in this session (see chart in Appendix D).

During this session the teacher and instructor discussed the role of the teacher in the classroom and its effects on self-concept development. The class worked with a Fundamental Communication Exercise outlined on the following pages.
A Fundamental Communication Exercise (Gazda, 1977)

Introduction

In these exercises we will help trainees become more effective in the use of two communication skills: accurate discriminating and relevant responding. These are basic skills in the communication processes. When your goals are to reduce distance between yourself and another person, reduce tensions in others and in general be more helpful to others through what you communicate, you will find these valuable skills to have.

First Experience: To become aware of some of the barriers to effective, helpful communication.

Purpose: To avoid using typical responses that often have a depreciating effect upon using communications helpfully or to establish better relationships.

Barriers to Communications (p. 47)

Expression of person: "I'm just so stupid. I never get to play in these games."

1. Ordering or commanding: "You must not feel that way," or, "Stop feeling sorry for yourself."

2. Admonishing: "You ought to be thankful you have the opportunity to do as much as you have."

3. Threatening: "You better stop talking like that."

4. Advising: "If I were you I would talk with the Counselor."

5. Instructing: "You should think about yourself in other ways."

6. Criticizing: "You are hurting yourself for feeling that way."

7. Praising and agreeing: "People often feel that way even when they are bright like you."

8. Name calling: "You are behaving like a baby."

9. Interpreting: "You are just tired."
10. Reassuring, sympathizing: "You'll feel better about yourself after a rest."

11. Probing or questioning: "Why do you feel that way?"

12. Diverting (often by humor): "You don't look like Dumbo to me. Go get your mind off it."

Second Experience: After hearing some of the responses, consider how they might retard the goals you have in communication and how they might deny the right of the person to have the feeling. They tend to shut off understanding. They tend to put people off and make them feel you don't care. The person may well infer "I am not understood. I shouldn't have such a feeling, but I do." This may generate frustration, anger, a power struggle with the responder. It may set up a situation that creates some hostility and tension.

A. What is the person feeling? (Who says "I'm just so stupid?")

Some possible discriminations: dumb, inadequate, overburdened, interior, discouraged, overwhelmed.

B. How can we let the person know we have heard his feeling—that we have not denied it?

Example: "You seem awfully discouraged today."

C. In accurate discriminating (1) we hear the feeling and determine the meaning; (2) in relevant responding we reflect what we heard by asking questions and making statements which include what we have discriminated.

Third Experience: Discriminating Feelings (p. 58)

In partnerships or small groups, have one person read the expressions with feeling. Try to discriminate the feeling.

a. "What the hell good is the Counselor gonna do me?"

The most obvious feeling(s)______________________________

b. "Why do we have to do everything you people say?"

The most obvious feeling(s)______________________________
c. "I have too much 'Mickey Mouse' in my work."

The most obvious feeling(s)______________________________

d. "I hate this job!"

The most obvious feeling(s)______________________________

e. "Other people are always running me down."

The most obvious feeling(s)______________________________

f. "I hate this place. It stinks."

The most obvious feeling(s)______________________________

g. "Counseling people get the best of everything."

The most obvious feeling(s)______________________________

h. "Why can't I do it? I know how."

The most obvious feeling(s)______________________________

i. "They always pick on me."

The most obvious feeling(s)______________________________

j. "I've made my time. It's time to be out."

The most obvious feeling(s)______________________________

k. "My buddy gets away with everything but I can't. I can't stand him."

The most obvious feelings(s)______________________________

Fourth Experience: Relevant Responding (pp. 62-70)

Look at the first five expressions (a thru e) to become familiar with relevant responding. Break into pairs and develop relevant responses for the remaining expressions.

a. "When we have meetings I never get to talk!"

Relevant response: "You're not sure talk is going to help. What you need is some action."
b. "Why do we have to do everything people say?"
   Relevant response: "You feel people are always telling you what to do? Bossing too much?"

c. "I have too much 'Mickey Mouse' in my work."
   Relevant response: "You feel that much of your work is a lot of 'bull.'"

d. "I hate you!"
   Relevant response: "You're angry at me for something I've done to you."

e. "Other people are always running me down."
   Relevant response: "It hurts to be put down all the time."

Fifth Experience:
f. "I hate this place. It stinks."
   Relevant response: __________________________

g. "Counselors get the best of everything."
   Relevant response: __________________________

h. "Why can't I do it? I know how."
   Relevant response: __________________________

i. "You always pick on me."
   Relevant response: __________________________

j. "I've made my time; it's time to be out."
   Relevant response: __________________________

k. "My buddy gets away with everything, but I can't. I can't stand him."
   Relevant response: __________________________
Sixth Experience:

Your responses can be assessed and rated in terms of their helpful impact upon others whom you wish to get closer to or develop an interactive relationship with. Generally the exercises were designed to teach you to empathize (see things as others experience them) with others. The five point scale below may be used to make the ratings:

Scale to Measure Accurate Empathy (Gazda, p. 67)

5  Completely tuned in to feelings.
4  Additive (gets at unexpressed feelings).
3  Essentially interchangeable (feelings).
2  Subtractive (distractive) denies person's feelings, or takes away from person.
1  Irrelevant or very harmful response.
Fifth Meeting

This session introduces the dimension of warmth and includes definitions of the levels of warmth.

Nonverbal communication took the largest segment with this session. The large groups worked on arrangement of chairs and feelings that came out during the exercise.

In the large group we divided up into two's and worked on areas of eye-contact, space, and arrangement of chairs and desks. Each student choose another partner. The instructor gave specific directions for each of the class members. For example:

Each student stood and talked down to the other partner; then the role was switched. A discussion followed concerning feelings in the two positions, i.e., seated and standing:

**Feeling responses in the standing position:** Adult, superior, responsible, overbearing.

**Feeling responses for seating position:** Childlike, inferior.

The discussion centered on power in the classroom, and feelings at different positions in relation to students. The nonverbal assignments would be completed by the end of the seventh meeting.
Nonverbal Communication

Galloway (1970) in his *Teaching is Communicative Non-Verbal Language in the Classroom*, gives the following descriptive definitions regarding nonverbal communication.

Nonverbal communication, is behavior that conveys meaning without words. It can be symbolic or nonsymbolic, spontaneous or managed. It can be expressive, transmitting emotion; or it can be informative, transmitting facts. It can be either dynamic or static.

Nonverbal communication takes a certain amount of time and occurs at a certain tempo. It can be quick or slow. It can be negative or positive--something that doesn’t happen as well as something that does. Or it can be a combination of any of these--and there’s even a nonverbal component in verbalisms.

Nonverbal phenomena established the status of interaction. At a party you are talking to someone, but his eyes are following someone else around the room. His posture and manner indicate his desire to be off. What conclusion do you come to?

Nonverbal behavior indicates what the other person thinks of us. You are discussing a controversial topic with a small group. Everyone is reacting politely, but you are aware of those who approve of your ideas and those who disagree. How do you know?

Nonverbal clues are used to check the reliability of what is said. You had mailed a coupon indicating interest in an expensive set of books. The man who shows up at your door is poorly groomed and shifty-eyed. Although his credentials seem in order, you hesitate even to let him in.

Assignment

1. Review the last two days of school. Can you recall an incident in which a child’s behavior belied his remarks?

2. When a nonverbal cue disagrees with or contradicts a verbal remark, we tend to accept the nonverbal message as representative of the real meaning. Discuss why this occurs.
Nonverbal behavior consists of such events as facial expression, posture, gestures, movements even the arrangement of space or objects around the behaver. It involves use of the body, use of space, and even the use of time.

Although we are often unaware of the process, we are very conscious of the eloquence of nonverbal cues. We all agree that actions speak louder than words, and realize that how we say something can be as important as what we say. We also know the feeling of being in tune with someone--immediately understanding him and having him understand us.

Substitute Expression--A child shrugs his shoulder in an I don't know manner after being accosted in the hallway for running. Probably this means he feels guilty at being caught, yet he hesitates to engage the teacher in a verbal debate. This is especially true if his verbal defense is likely to be employed against him later in the conversation. One of the places events like this occur repeatedly is in inner-city schools, where children are already conditioned to express their frustrations and defiance in a nonverbal way.

Qualifying Expression--Ann says, "I don't sing well," but what does she mean? Stated one way, it suggests that she does sing well; or it may mean that she would like to sing well; or, that she truly does not sing well. The intent of verbal remarks is usually qualified through intonation and inflection. Facial expressions and gestures also qualify verbal language.

Attentive or Inattentive--Your students are pretending to listen while their minds wander in fields of fantasy, and when they respond it is in a bored fashion. Nonverbally they are being inattentive. As an experienced teacher, you are able to detect such reactions and use them to change the pace and direction of what is being taught. Observing when students are involved and interested and when they are not is a skill that teachers learn. But teachers vary widely in their ability or willingness to use these pupil reactions as directions for their own behavior.

Assignments

1. Identify children in your class who typically react nonverbally to either reprimand or approval. Do you know what they are really trying to communicate?
2. Experiment with positive body and facial qualifying expressions, especially when you feel a need to support a request or judgment you are making.

Consider phenomena that are typical of any classroom:

Use of Space--Classrooms are divided into territories. Both teacher and students occupy space. Some arrangements of territorial rights are traditional, with the teacher's desk at the front of the room and students seated in rows. Other arrangements are more imaginative. Some uses of space are fluid, others are static.

Space arrangement shows the teacher's priorities--what she thinks important; what she thinks about her children; how she envisions her own position. A change in a spatial arrangement influences the potential meaning of a learning context.

Teacher Travel--Where and when a teacher chooses to travel in a classroom is significant. In the past, teachers usually moved around their own desks as if they were isles of security. They rarely ventured into territories of student residence, unless they wished to check up on or monitor seatwork. Today that picture has changed. Some teachers have done away with desks; others have put them in less focal places.

To move toward or away from students signifies relationships. Teachers may avoid some students or frequent the work areas of others. All of those movements have meaning that students recognize.

Use of Time--How teachers use their time indicates the value and importance they place on types of work, on subject areas, and on acceptable activities. Spending little or no time on a topic indicates a lack of interest in or knowledge about it so that even little children are aware of teachers' preferences.

Nonverbal qualities that contribute to effective classroom interaction are suggested:

Attention--The event of listening to pupils when they talk. This is essential. When a teacher fails to listen, a pupil is likely to believe that what he says is unimportant.
Reception--Behavioral evidence that a teacher is listening, by maintaining eye contact while a pupil is talking. The event of attending to pupils when they talk assures pupils and encourages them to believe that their verbal communication is valued by the teacher.

Reinforcement--A look or gesture to reinforce approval of an act by a student. Not only the timid but also the seemingly forward child may need reinforcement if he is to go ahead on his own.

Facilitation--A movement toward a student for the purpose of helping or assisting. Teachers quite often detect needs of unexpressed feelings by students, and initiate a move toward the student to alleviate his concern. Teachers engage in such events because, either consciously or subconsciously, they have become sensitive to the nonverbal cues given by their students.

We all recognize that expressive cues are fleeting and transitory. Nonetheless, they transmit emotion and feeling, and are detected as indications of meaning far more quickly than speech. It is the appearance of such cues that especially suggests to others the attitudes we hold at a given time. Therefore, they are particularly important in establishing the classroom environment and in working out good rapport with each child.

Assignments

1. Draw some alternate layouts for your classroom. List changes in nonverbal phenomena that each layout would imply.

2. Make a two-day study of how often you contact each child in any of many ways. Keep a list of children's names and devise a simple code to indicate times of approving or disapproving, individual or group sharing, listening, or other interaction.

Awareness of the behavior of yourself and your students and what it means does not come all at once. Interpretations change as realization increases. But the processes of awareness and realization are concomitant. You perceive to greater depths, you are more attuned to those around you, and you begin to employ nonverbal clues for positive purposes. Having opened the door, you realize you have the ability to change and improve.

In conclusion, the purpose of this is to become more aware of nonverbal cues because they operate as a silent language to influence teacher-student understandings and interactions. And
it is through these understandings and interactions in the classroom that the business of teaching and learning goes forward.

The final assignment in the nonverbal area was an invitation to experiment in every phase of classroom nonverbal communication. Choose three out of eight:

1. If you customarily work with small groups of children, experiment with the spread of the chairs. When the chairs are touching each other, do children react differently from when they are a foot apart? What about two feet? Does it make a difference whether you sit on a higher chair or one of the same height?

2. Nonverbal acts are often preferable to words, and many studies show that the teacher's voice is heard far too often. Without telling the children of your intentions, experiment with giving nonverbal instead of verbal directions. Use devices such as a tap of a bell to tell children you want their attention, or the flick of lights to show that a period is about to end.

3. Use nonverbal displays. The old adage that a picture is worth a thousand words applies in establishing classroom climate, especially if you employ humor and relaxation. One teacher experimented with two signs. The first said, "Pick up paper and put it in the wastebasket." The second was a silhouette of a child neatly dropping paper in the wastebasket. The second proved to be by far the better reminder.

4. Provide opportunities for children to express emotions by nonverbal means. Pantomimes are not only highly expressive for the actors but also give teachers insight into their feelings and emotions. Various forms of rhythm and creative dance are good nonverbal expressions, and so of course are all types of art work.

5. Increase your practice of looking students in the eye. Experiment with glance exchanges for individual-to-individual contact.

6. Experiment with new movement patterns. Things you have been doing, do differently for a while. You may be making yourself too available or not available enough. Be sure, however, that your accessibility is not just a sneaky way to maintain close supervision.
7. Let children experiment with furniture arrangement that involves group interaction. One teacher tried putting desks in groups of four with children facing each other. Two days later the desks were reversed so that this time the children faced away from each other.

8. Individualize your attention. You can't listen to all of the children all of the time, so experiment with listening very intently to a child for a brief period. As long as he is talking, look directly at him.
Sixth Meeting

Introduction of the dimensions of concreteness and genuineness are introduced and investigated in this section. Also, the Johari Window was discussed at this session. In large groups we talked about various group dynamics and their implications. See the following chart on the Johari Window, along with ideas on group dynamics.
The Johari Window (Ingham and Luft, 1955)

A Graphic Model of Awareness in Interpersonal Relations

Like the happy centipede, many people get along fine working with others, without thinking about which foot to put forward. But when there are difficulties, when the usual methods do not work, when we want to learn more—there is no alternative but to examine our own behavior in relation to others. The trouble is that, among other things, it is so hard to find ways of thinking about such matters, particularly for people who have no extensive backgrounds in the social sciences.

The Johari Window illustrates relationships in terms of awareness. It seems to lend itself as a heuristic device, to speculating about human relations. It is simple to visualize the four quadrants which represent the Johari Window.

<table>
<thead>
<tr>
<th>Known to self</th>
<th>Not known to self</th>
</tr>
</thead>
<tbody>
<tr>
<td>Known to others</td>
<td>Area of free activity</td>
</tr>
<tr>
<td>Not known to others</td>
<td>III Avoided or hidden areas</td>
</tr>
</tbody>
</table>

**Quadrant I:** The area of free activity refers to behavior and motivation known to self and known to others.

**Quadrant II:** The blind area, where others can see things in ourselves of which we are unaware.
Quadrant III: The avoided or hidden area, represents things we know but do not reveal to others (e.g., a hidden agenda, or matters about which we have sensitive feelings).

Quadrant IV: Area of unknown activity. Neither the individual nor others are aware of certain behaviors of motives. Yet, we can assume their existence because eventually some of these unknown behaviors and motives were influencing relationships all along.
Ideas on Group Dynamics

7. Circle Check
   X X X
   X X
   X X
   X X X
   a. To get everyone involved at the beginning
   b. To surface individual feelings about an issue
   c. To dissolve a sub-group that is taking over

2. Fishbowl
   X X
   X o oo X
   X X
   a. To speed up dialogue
   b. To guarantee a giving-receiving experience for each member in a large group
   c. To offer an experience to observe group process

3. Pairing
   XX
   XX
   XX
   a. To provide a quick warm-up on a new topic
   b. To provide a change of pace after lecture situation
   c. To get everyone in a large group involved at the same time.

4. Brainstorming
   X—•—X
   X X X X X
   X X X X
   a. To generate many ideas in a hurry
   b. To structure a task-oriented climate
5. Mirror-Listening

- To show how easy it is to distort messages
- To provide practice in careful listening

6. Task Force

- To double the group's problem-solving time
- To utilize special know-how among group members

7. Group Consensus

- To provide recognition for a loyal minority without forcing a hand vote
- To promote harmony by asking group to act as one

Taken from West Virginia Dept. of Mental Health, Charleston, West Virginia, 1976, Field Manual.
Seventh Meeting

The seventh meeting covered all assignments on nonverbal communications.

Meetings seven through nine. Consultant and teachers worked together in classrooms on activities, assignments and tapes, making sure all were meeting target date and responsibilities. Each teacher worked with activities taken from textbook that correlated with their levels of students. Verbal communication was stressed.

Tenth Meeting

Session ten included the following concerns:

1. Guest speaker, Robert Morrill, Virginia Polytechnic Institute and State University, Geography Department, spoke on self-concept of students.

2. The class took the Diagnostic Instrument (shown after Group Dynamics on the following pages) to determine the effectiveness of communications at Level 3 of the Carkhuff Model.

3. The class read and discussed the handout "Building Self Concepts in Students and Teachers" by William W. Purkey, College of Education at the University of Florida. A copy of this handout is included in this paper, following the form for Item 2 above.
Behavioral Objective: Classify accurately three out of four exercises on communication types—Paraphrased from Gazda, 1977, pp. 44-45.

After studying the examples of the four types of helpee statements, write in the space in front of each interaction the type of communication it illustrates. Use RA for request for action, RI for request for information, II for inappropriate interaction and RUI for request for understanding/involvement. In some instances categories overlap; therefore, more than one category may be used to classify one interaction.

1. Principal to teacher: "Mrs. Johnson is not here today. Will you take her bus duty?"

2. Student to teacher: "I'm lost in this big school. Where's the cafeteria?"

3. Student to teacher: "I just don't understand these algebra problems. Would you do an example and explain it for me?"

4. Teacher to teacher: "Do you have a lot of students in your classes this year? It seems like I have twice as many as usual."

Behavioral Objective: You should be able to write helper responses at level 3.0 for two out of the three statements (Gazda, 1977, p. 68).

Discussion: A level three response is rated as such if it (1) includes a communication of a primary surface feeling (disappointment); (2) it includes the essence of the content; and (3) it neither adds to nor subtracts from the helpee's statement.

1. Student to teacher: "I don't see why we can't wear short shorts. I want to be an individual and express my own feelings and values. This is just a scheme you teachers thought up to keep us in place."

Helper response: __________________________________________

EDCI 5780—Diagnostic Instrument
2. Student to teacher: "How can I ever face them again? They will be laughing about my mistake for years."

Helper response

3. Student to Principal: "Whenever you work as hard as I worked toward a goal and then something like this happens, it's enough to make you want to give up."

Helper response

EDCI 5780--Diagnostic Instrument

Note: It was determined through instrument that students mastered level three responses based on Carkhuff model.
Building Self Concepts in Students and Teachers

William W. Purkey
College of Education
University of Florida

How can we make schools a better place for people, a place where warmth, joy, imagination, civility, personal responsibility, and sensitivity to human needs are encouraged? A clue might lie in the four factors of the Florida Key, an observation inventory which we developed in 1970 to infer student self concept as learner. When we analyzed the items on the Florida Key, four factors were isolated. We named these. Relating, Asserting, Inventing, and Coping. These four factors seem to highlight important features of life in classrooms.

How well do people relate to each other in your school, student to student, student to teacher, and teacher to teacher? In your school, do people feel free to assert their feelings, their wants, their individuality? Does everyone feel safe enough to invest themselves in trying new things? And how well do the people in your school cope with their own expectations and the expectations of society? Answers to questions like these indicate ways of making schools a better place for students and teachers.

Please consider the following additional questions as they relate to your school. As you answer, keep looking for ideas that might make your school a better place for students and teachers. Who knows? We may end up wishing for school on Saturday!
Relating

Do we welcome and greet each other at the beginning of the day or class?

Do we share our feelings with each other? (laughter, eagerness, excitement, enthusiasm, sadness, happiness, boredom?)

Do we usually say goodbye to each other at the close of the day or class?

Are we sensitive to, and do we take into account, how each is feeling on a particular day?

Do we take special note of everyone's birthday and other special occasions? (even Principals have birthdays!)

After absences, do we show each other that we're glad to be together again?

Do we talk with each other, not just AT each other?

Are times arranged when we can talk privately?

Do we practice courtesy and civility with each other?

Do we accept small irritations as normal, and not as personal insults?

Do we touch each other, by shaking hands or giving a pat on the back?
Asserting

Are we free to question each others' opinions?
Do we all participate in decision-making activities?
Is everyone encouraged to speak up for his own ideas?
Does everyone take part in planning what takes place in school?
Do we encourage each other to demonstrate special talents, abilities, interests?
Do we act in ways that say we trust each other?

Investing

Do we encourage each other to try new things and join in fresh activities?
Do we encourage cooperation and collaboration?
Do we give each other the opportunity to make mistakes without penalty?
Do we all work together to make what happens in school as exciting and interesting as possible?
Do we encourage each other's expression and imagination in class?
Is there opportunity for everyone to be active and natural?
APPENDIX D

SCALES USED IN TRAINING PROGRAM
BASED ON CARKHUFF'S MODEL
The response is irrelevant or punishing. An irrelevant response ignores or discredits what the helpee communicated. A punishing response may ridicule or scold the helpee. These responses discourage the helpee from self-exploration and hinder further interaction. (Both facilitative and action dimensions are at a low level.)

The response is distorting, premature, or incomplete. It is distorting when it adds new meaning before the helpee can utilize it; or incomplete when it subtracts from the helpee's intended meaning. Level 2 responses generally do not seriously impede interaction, but may require clarification by the helpee before proceeding. (These responses are low on facilitative dimensions and high on action dimensions.)

The response reflects the essence of what the helpee expressed. A level 3 response is minimally helpful and encourages the helpee to self-explore and self-disclose. (These responses are high on facilitative and low on action dimensions.)

In addition to reflecting the essence of what the helpee expressed, the response of the helper accurately adds new material for the helpee to evaluate. The helper's response may include making interpretations, revealing relationships, or giving information. The response allows the helpee to utilize heretofore unknown or misunderstood avenues for problem solving, learning, or self-fulfillment, and encourages further interaction. (Level 4 responses are high on both facilitative and action dimensions.)
**EMPATHY SCALE**

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>An irrelevant response that attends to neither the content nor the feeling of the helpee, or is hurtful or punishing.</td>
</tr>
<tr>
<td>1.5</td>
<td>An incomplete response that only partially recognizes the feelings and/or the content of the helpee.</td>
</tr>
<tr>
<td>2.0</td>
<td>A response that includes both hearing what the helpee is saying and attempting to understand his surface feelings with an intensity equivalent to that of the helpee. It neither adds to nor subtracts from what the helpee is saying.</td>
</tr>
<tr>
<td>2.5</td>
<td>A response that goes beyond level 3 by accurately responding to underlying feelings.</td>
</tr>
<tr>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>
A response which overtly communicates disrespect. The helper may attempt to impose his own beliefs and values onto the helpee, seek to focus attention on himself by dominating the conversation, instantly challenge the accuracy of the helpee's perception, or devalue the worth of the helpee as an individual by communicating that the helpee is not able to function appropriately on his own. These responses leave the helpee wishing that he had not talked to the helper, and probably preclude future interactions.

A response in which the helper withholds himself from involvement with the helpee. This may be communicated by declining to enter a helping relationship, by ignoring what the helpee is saying, or by responding in a casual or mechanical way. Such responses tend to terminate the interaction.

A response which communicates that the helper is open to or will consider entering a helping relationship. It communicates recognition of the helpee as a person of worth, capable of thinking and expressing himself and able to act constructively. The helper suspends acting on his judgment of the helpee in his situation.

A response which demonstrates the helper's willingness to make sacrifices and bear the risk of being hurt in order to further the helping relationship. This results in the helpee experiencing himself as a valued individual and stimulates deeper interaction by allowing the helpee to feel free to be himself.

RESPECT SCALE

1.0  1.5  2.0  2.5  3.0  3.5  4.0
### WARMTH SCALE

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>The helper has disapproving facial expression or appears disinterested. He turns away or does other tasks while the helpee is talking.</td>
</tr>
<tr>
<td>1.5</td>
<td>Expressions and gestures are absent or neutral; responses sound mechanical or rehearsed.</td>
</tr>
<tr>
<td>2.0</td>
<td>Shows attention and interest clearly; nonverbal behaviors vary appropriately as helpee's emotions vary.</td>
</tr>
<tr>
<td>2.5</td>
<td>The helper is wholly and intensely attentive to the interaction, resulting in the helpee feeling complete acceptance and significance. The helper is physically closer to the helpee than at level 3, and may make physical contact.</td>
</tr>
<tr>
<td>CONCRETENESS SCALE</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>1.5</td>
</tr>
</tbody>
</table>

The helper responds to the helpee in abstract, vague terms or he responds in a very specific but premature and hurtful manner.

The helper responds to the helpee in general terms. He does not focus on specific manifestations of helpee concerns. He may ask the helpee to be more specific without modeling specificity himself.

The helper responds to the helpee in specific and concrete terms. The helper accepts abstractions on the part of the helpee but models specificity.

The helper responds to the helpee in specific and concrete terms and actively solicits specificity from the helpee. During the earlier stages this may involve asking for clarification of vague or abstract helpee statements. During later stages it may entail assisting the helpee to enumerate clear and concrete alternatives that derive from the interaction, summarizing his newly acquired self-understanding, or outlining his plans for future action.
1.0 A response in which the helper attempts to hide his feelings or uses them to punish the helpee.

1.5 The helper responds according to some preconceived role. His responses are congruent with the role he is taking but are incongruent with his true feelings.

2.0 A controlled expression of feelings which facilitates the development of the relationship. The helper refrains from expressing feelings which could impede the development of the relationship.

2.5 A response in which the helper's verbal and non-verbal messages, whether they be positive or negative, are congruent with how he feels. These feelings are communicated in a way that strengthens the relationship.

3.0

3.5

4.0
SELF-DISCLOSURE SCALE

1.0  
The helper actively remains detached from the helpee and reveals nothing about himself; or if he does disclose something about himself, he does so exclusively to meet his own needs. When the helper changes the focus of the interaction to himself and his own problems, the helpee may be overwhelmed by the helper's self-disclosures, feeling that the helper is not interested in him or become disillusioned with the helper's ability to help.

1.5  
The helper does not volunteer personal information. He may answer direct questions, but only hesitantly and briefly. The helpee, then, only gets to know exactly what he asks about the helpee.

2.0  
The helper reveals ideas, attitudes and experiences relevant to the helpee's concerns, in a genuine fashion; he reveals his feelings at a surface level. Therefore, his uniqueness as a person is not communicated. The helpee, then, knows a little about the helper's ideas or experiences that may be useful in dealing with his own problem.

2.5  
The helper reveals his own personal ideas, experiences and feelings when they are relevant to the helpee's interests and concerns. These may involve a degree of risk-taking on the part of the helper. The helper reveals his uniqueness as a person.
A response which does not allow any consideration of discrepancies existing for the helpee. The helper may accept the discrepancies expressed by the helpee, may contradict the expressed or felt conflict of the helpee, ignore the discrepancies or give direction prematurely. In any of these instances the helper is closing off possible fruitful avenues of investigation.

The helper does not explicitly draw attention to discrepancies in the helpee's behavior. He does not overtly accept or deny these discrepancies but does not point them out to the helpee, either. He may simply remain silent about the discrepancies or reflect the helpee's feelings about them. The helpee, therefore, is not explicitly aware of possible useful areas of inquiry.

The helper indicates discrepancies without pointing out the specific directions in which these lead. He is tentative in comparing diverging communications expressed by the helpee. This allows the helpee to explore different areas in which he may become aware of diverging trends in his behavior.

A response which clearly points out discrepancies which the helper has noticed and the specific directions in which the discrepancies lead. This focuses the helpee's attention on specific discontinuities in his behavior. It facilitates his dealing with areas of which he had been unaware or brings out more clearly a discrepancy of which he had been vaguely aware.
<table>
<thead>
<tr>
<th>IMMEDIACY OF RELATIONSHIP SCALE</th>
<th>1.0</th>
<th>1.5</th>
<th>2.0</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helper ignores all cues from helpee which deal with their interpersonal relationship.</td>
<td>Helper consciously gives token recognition to helpee statements about their interpersonal relationship but postpones discussing it or dismisses it after having commented on it superficially.</td>
<td>Helper discusses the interpersonal relationship between himself and the helpee, but in a general rather than a personal way, which obscures the uniqueness of their relationship. Helper is open to sharing responsibility for any defects which may exist in the relationship.</td>
<td>Helper and helpee explicitly discuss their interpersonal relationship as it exists at that moment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

CHARACTERISTICS OF EXPERIMENTAL AND CONTROL TEACHERS
### TABLE 8

Characteristics of Experimental and Control Teachers Involved in Study

<table>
<thead>
<tr>
<th>Experimental Teachers</th>
<th>Control Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teacher</td>
</tr>
<tr>
<td>E01</td>
<td>5</td>
</tr>
<tr>
<td>E02</td>
<td>7</td>
</tr>
<tr>
<td>E03</td>
<td>12</td>
</tr>
<tr>
<td>E04</td>
<td>9</td>
</tr>
<tr>
<td>E05</td>
<td>11</td>
</tr>
<tr>
<td>E06</td>
<td>10</td>
</tr>
<tr>
<td>E07</td>
<td>22</td>
</tr>
<tr>
<td>E08</td>
<td>5</td>
</tr>
<tr>
<td>E09</td>
<td>9</td>
</tr>
<tr>
<td>E10</td>
<td>6</td>
</tr>
</tbody>
</table>

$\bar{X} = 9.6 \quad \bar{X} = 3.3 \quad \bar{X} = 12.4 \quad \bar{X} = 3.2$
QUESTIONNAIRE (C)

1. Were you aware of a class being taught Fall Quarter EDCI 5780 that dealt with self-concept development? Yes____ No____. 
   If yes, how did you find out about it?_________________________________________

2. How much contact did you have with teachers who took this course? 
   None____. If you did please write in the space below indicating how much contact.______________________________________
   Where did this contact take place?________________________________________

3. If contact took place, did you use any of the ideas of these teachers with your own classes?______________________________

4. Would you take a class in the area of self-concept if another class was offered? Yes____ No____. If no, what specific area of study would you be interested in?______________________________

5. Did you enroll in any classes fall quarter? Yes____ No____.

6. Are you planning on enrolling in any classes winter or spring quarter? Yes____ No____.
1. Other than the class EDCI 5780 in the area of self-concept development, how many classes did you take Fall Quarter 1977? ____
   Total hours? ____. Please list course/s __________________________
   __________________________
   __________________________

2. Did you take courses last year? Yes____ No____. If yes
   please list ______________________________________________________
   ______________________________________________________________

3. Are you planning to enroll in classes this coming Winter, or
   Spring Quarters? (1978) Yes____ No____. If yes please list.
   ______________________________________________________________
   ______________________________________________________________

4. For what Primary reason did you enroll in EDCI 5780 Self-Concept
   Development? Please Check one.
   a. Certification
   b. Personal Interest/Professional Development
   c. Meet Degree requirements/Credits
   d. Other (please explain)
      ______________________________________________________________
      ______________________________________________________________
<table>
<thead>
<tr>
<th></th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>07</th>
<th>08</th>
<th>09</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers who were enrolled in classes Fall Quarter 1978</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Teachers who were enrolled in classes Winter and Spring Quarter 1978</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Teachers who had contact with experimental teachers and were aware of class techniques</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Teachers who were unaware of the class being offered</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 6. Questionnaire results on Control Teachers.
1. Teachers who were enrolled in classes other than EDCI 5780
   _____________________________________________________________________________
   X

2. Teachers who enrolled in any other class or classes last school year
   _____________________________________________________________________________
   X  X  X  X  X

3. Teachers who took classes Winter and Spring Quarter 1978
   _____________________________________________________________________________
   X  X  X  X

4. Reasons for taking class:
   a. Certification
      _____________________________________________________________________________
      X  X  X  X  X  X
   b. Personal Interest
      _____________________________________________________________________________
      X  X  X  X  X
   c. Meet Degree Requirements
      _____________________________________________________________________________
   d. Other
      _____________________________________________________________________________

Figure 7. Questionnaire results on Experimental Teachers.
APPENDIX F

STATISTICAL ANCOVA RELATED TO FLANDERS AND PIERS-HARRIS
### TABLE 9
Summary ANCOVA for Flanders Data

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covariates</td>
<td>16.16</td>
<td>1</td>
<td>16.16</td>
<td>1.99</td>
<td>.177</td>
</tr>
<tr>
<td>(pre a)</td>
<td></td>
<td></td>
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Summary ANCOVA for Piers-Harris Data

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VITA

JERRY DALE JONES

Personal Background
Born: September 11, 1944
Marital Status: Single

Educational Background
Saint Albans High School, St. Albans, WV. Diploma, 1962
West Virginia State College, Elem. Ed. B.S. 1972
West Virginia Col. of Grad. Studies, Counseling M.A. 1974

Professional Experience

Instructor, Dept. of Elementary and Secondary Education, West Virginia College of Graduate Studies, Institute, West Virginia. (August 1976-Present)

Instructor, Division of Curriculum and Instruction, College of Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. (September 1977-December 1977)

Supervisor of Student Teaching, Division of Curriculum and Instruction, College of Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. (August 1975-June 1977) Graduate Teaching Assistantship.

Guidance Counselor, Spencer Junior High and Elementary School, Spencer, West Virginia. (September 1974-June 1975)

Teacher, Fifth and Sixth Grade, Fairview Elementary School, Saint Albans, West Virginia. (September 1972-June 1974)

Teacher, Cedar Grove Community School, Cedar Grove, West Virginia. (Summer, 1974)

Counselor, 4-H Camp, Jacksons Mill, West Virginia. (Summer, 1974)

Radarman, United States Navy, U.S.S. Brownson DD868, Newport, Rhode Island. (September 1967-October 1970)

Teacher, Colin Anderson Center, Saint Marys, West Virginia. (Summers, 1966 and 1967)

Memberships
National Vocational Guidance Association
National Education Association
American School Counselor Association
Phi Delta Kappa
AN INVESTIGATION OF THE EFFECTS OF A SYSTEMATIC BEHAVIOR MODIFICATION PROGRAM ON THE VERBAL INTERACTION OF CLASSROOM TEACHERS AND ITS RELATIONSHIP TO TEACHERS' STUDENTS' SELF-CONCEPT
by
Jerry Dale Jones

(ABSTRACT)

The purpose of this study was to determine if a ten week (30 hour) systematic behavior modification program for classroom teachers had an effect on the verbal interaction of these classroom teachers. A second part of this study sought to determine if this verbal change had an effect on the self-concept of the teachers' students. A graduate level, 3 credit hour course was offered to Pulaski County, Virginia classroom teachers, and was based on the Robert Carkhuff model of communications.

Ten teachers chosen at random from the class of 40 were selected for the experimental teachers. Ten teachers within the county not enrolled in the class were chosen at random for the control teachers. Ten students were also chosen at random (five boys and five girls) from each of these experimental and control teachers. The instruments used to collect the data were the Flanders Interaction Analysis System for the teachers; and the Piers-Harris Self-Concept Scale, "How I Feel About Myself," was administered to the experimental and control teachers' students.
Pre-post-data gathering procedures were used based on a 20 week time interval. The data were analyzed on the Flanders using a univariate analysis of covariance. Seven of the null hypotheses out of the 12 were rejected at the .10 level of significance. The data were analyzed on the Piers-Harris Scale using a univariate analysis of covariance on the six subscales. Five of the null hypotheses were rejected out of the six at the .10 level of significance.

On the basis of the results of this study, it is concluded that a significant change in the verbal interaction between teachers and students was evident for the experimental teaching group when compared with control teaching group. The experimental teachers

1) used more acceptance of student ideas,
2) were more indirect in their overall interaction pattern,
3) were more indirect in their use of motivating and controlling behavior,
4) used more extended indirect influence, and
5) used less extended direct influence.

The results showed that in the subscales of (I) Behavior; (II) Intellectual and School Status; (III) Physical Appearance; (IV) Anxiety; and (VI) Happiness and Satisfaction; the students of the experimental teachers had more positive self-concept gains as compared with the control teachers. This finding supports the claim that a program in human relations training for teachers is a factor in increasing self-concept of students. Also, it indicates that this class was successfully implemented and achieved some positive results.