A COMPARISON OF THREE IN-SERVICE TRAINING MODELS
IN HUMANIZING ELEMENTARY TEACHERS' ATTITUDES TOWARD CHILDREN

DISSERTATION

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By

James L. Cox, B. A., M. A.
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This study investigated the effectiveness of three in-service training models in humanizing teachers' attitudes toward children. Each model was analyzed separately and then compared with each of the others. The purposes of this study were to determine whether teachers, after participating in one of three in-service models, would experience positive changes in attitudes toward children and would maintain these changes for at least three months.

The population in this study comprised selected elementary teachers in a middle-class suburban school district in the north Texas area. Thirty teachers constituted the Method A subjects, twenty-one the Method B, and eighteen the Method C. The Method A teachers participated in the Teacher Effectiveness Training workshop, a commercially prepared program designed to humanize teachers' attitudes. The T. E. T. workshop was a twenty-four-hour program spanning a three-and-one-half-month period. The Method B teachers participated in a district- and building-planned in-service program that included the viewing and discussion of four
films designed to create humanistic attitudes. The Method B in-service program was twenty-four hours in length and was conducted over a three-and-one-half-month period. The Method C teachers participated in a district- and building-planned in-service program which was not aimed at humanizing attitudes. The Method C in-service program was also twenty-four hours in length and was conducted over the same three-and-one-half-month period as Method A and Method B.

The instrument used to measure attitudes was the Attitude Inventory, which utilized the semantic-differential technique. The Dogmatism Scale, Form E was also administered as a posttest and retention test.

After the data were gathered and tabulated, the results were statistically analyzed, using the related t test and the analysis of covariance techniques. A significance level of .05 was required for acceptance of the hypotheses.

There were no significant differences between the pretest, posttest, and retention test scores among the groups. Both the posttest and retention test scores were lower than the pretest scores for all groups, but not at a significant level.

The findings of this study support the conclusion that none of the three in-service programs, as conducted in this study, were effective in changing teachers' attitudes. Possibly the in-service programs lacked cohesiveness and continuity owing to the time intervals between the four
sessions. Another possible explanation for the ineffectiveness of the programs is found in the relatively short duration of the programs.

Teacher attitudes may become less humanistic as the school year progresses. All three groups of teachers experienced declines in humanistic attitudes with each successive testing. Despite the efforts of two of the in-service programs to change teacher attitudes positively, these teachers actually suffered a decline in positive attitudes, although not at a statistically significant level. The group of teachers who participated in the program that did not attempt to change attitudes experienced the greatest decline in positive attitude.

Based upon the results of this study, it is recommended that

1. Longitudinal studies be conducted, utilizing Teacher Effectiveness Training and other workshops designed to humanize teachers' attitudes, in order to determine the effects such devices have on attitudes and

2. A year-long study be conducted which examines teacher attitudes at different intervals during the school year.
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American public schools are committed to providing quality education to all American youth. To meet this commitment, school personnel must work continually toward the improvement of teaching. Despite attempts to improve teaching, the public schools have been widely criticized. One such criticism that merits attention is that many schools are not humane places for children. Considerable attention has been given to the subject, with numerous articles and books written on how to make schools more humanistic (5, 10, 13, 16). If schools do need to be more humanistic, educators must find the means to make them so.

To meet the general responsibility of instructional improvement and to counteract the more specific criticism of the lack of humanistic schools, educators have made extensive use of in-service training. In Texas, in-service programs have been mandatory since 1969 when the Texas legislature extended the school year by ten days, specifically for in-service sessions. A major responsibility of the regional Education Service Centers is to provide leadership and materials for local districts in planning and implementing in-service programs.
Traditionally, in-service programs have been planned and implemented by the school district administration and consisted primarily of lectures by "experts" or school district personnel. Although these lectures can be inspiring, many teachers find them of little value in improving instruction. Such district-wide programs are often general in nature and cover a myriad of topics.

Workshops have been another popular method of in-service education. Although workshops are often planned by the school administration, many utilize classroom teachers in the planning and implementation. Workshops usually focus on specific problems but are restricted in participation. Some may make use of commercially prepared materials that are available.

A building-planned in-service program is often effective because it addresses the specific problems and needs of an individual school. Commercially prepared in-service packages may be appropriate for this kind of in-service providing they meet the needs of the school.

If it is true that public schools do need to be more humanistic places, it is the task of educators to use whatever means are available to humanize them. One of these means appears to be in-service programs. Educators must then develop and evaluate effective in-service models for humanizing the classroom.
Statement of the Problem

The problem of the study is to determine if teacher attitudes can be changed by selected in-service programs.

Purpose of the Study

The purposes of the study are as follows.

1. To determine whether teachers, after participating in one of three approaches to in-service programs, experience changes in positive humanistic attitudes toward students.

2. To determine whether teachers, after participating in an in-service program designed to humanize teacher attitudes, experience more stable attitudinal changes than those participating in a regular district in-service program or in a modified regular district in-service program.

Definition of Terms

Method A in-service program is a prepackaged program based on Gordon's T. E. T., Teacher Effectiveness Training (8). It was conducted for six hours each day for four days over a three-and-a-half-month period. It is designed to develop in teachers positive, accepting, humanistic attitudes toward children and was conducted by a trained Effectiveness Training Institute facilitator. The Method A in-service program did not include any part of the regular district program.

Method B in-service program was a staff-development program consisting of the regular district in-service
program plus the viewing and discussing of four films

designed to humanize teachers toward children. The film/
discussion part of this in-service program was conducted by

the building principal.

Method C in-service program was a staff-development

program conducted by the school district with input from the

individual schools. A portion of this in-service program

was planned and conducted at the individual school level.

No central theme was involved.

Hypotheses

The following hypotheses were formulated to carry out

the purposes of this study.

1. There will be a significant, positive change in the

mean attitude score of teachers participating in the Method A

in-service program at the conclusion of the program.

2. There will not be a significant, positive change in

the mean attitude score of teachers participating in the

Method B in-service program at the conclusion of the program.

3. There will not be a significant, positive change in

the mean attitude score of teachers participating in the

Method C in-service program at the conclusion of the program.

4. The adjusted mean posttest attitude score of

Method A in-service teachers will be significantly higher

than that of teachers involved in the Method B in-service

program.
5. The adjusted mean posttest score of Method A in-service teachers will be significantly higher than that of teachers involved in the Method C in-service program.

6. There will be no significant difference between the adjusted mean posttest score of teachers in the Method B in-service program and that of teachers in the Method C in-service program.

7. Any gains made by Method A teachers in the direction of positive attitudinal changes will remain stable for three months after the final in-service program.

8. Any differences in mean attitude scores of teachers participating in the three in-service programs, measured at the conclusion of the program, will still exist in the same proportion three months later.

Background and Significance

Over the past decade, American public schools have come under severe attack for numerous reasons. Silberman (21) believes few institutions have been so reluctant to change as the public schools. Gordon (8) contends that most public school improvements that have been made are in "hardware" or "software." Improvements have occurred in building design, equipment, laboratories, books, libraries, films, tapes, and curriculum designs. But what matters most has changed the least—the way people treat one another or, more specifically, the way adults in the schools treat children. According to
Holt (10), many students are treated with a disrespect that should not be tolerated in a democratic society.

Holt (10) condemns the public schools as places that actually retard real learning in part owing to their restrictive and authoritarian atmosphere. According to Glasser (5, 6), schools are staffed primarily by warm, caring people, but they have been trained to remain objective and detached and not to become involved. He believes the opposite should be the case. Teachers should become actively involved with their students.

Murphy and Murphy (16) define humanization as the product of good human relations. The establishment of good human relations is possible only if the child feels that his teacher knows him, understands him, respects him, accepts him, and cares for him (5, 16, 21, 24). Glasser (5) believes that involvement with the student through understanding and acceptance will help fulfill the student's basic psychological needs: the need to be loved and to love and the need to feel worthwhile. He believes that it is important to demonstrate the behavior that one wants to be learned. The teacher should be an example to her students. Vakil (23) discovered that students had positive attitudes for those teachers who used praise and encouragement. These students also displayed positive attitudes toward other pupils in the classroom. Supporting Vakil's findings, Davidson and Lang (4) found a
positive correlation between children's perception of their teacher's feelings toward them and their perception of themselves.

Students with positive, accepting teachers apparently learn more. Researchers (4, 13) over the past six years support this hypothesis. In analyzing the relationship between student levels of cognitive functioning and teacher classroom behavior variables, Aspy and Roebuck (1) found that teachers whose students attained cognitive levels beyond recall provided significantly higher levels of positive regard than those teachers whose students remained at the recall level. Christensen (3) discovered that the warmth shown by teachers was related to student vocabulary and arithmetic achievement. Vakil supports these findings, noting that pupils with teachers who used praise and encouragement learned math computations better than those students with less positive teachers. In an earlier study (1960), Davidson and Lang (4) also found a positive correlation between favorable perception of teacher attitudes by students and their academic achievement.

Goldstein (7), Marino (14), and Stanley (22) found, in separate studies, significant attitudinal changes following in-service programs designed to produce such changes. Stanley's (22) study involved a nine-month in-service program whose subjects were thirty teachers who had requested to be on the staff of an experimental school. As hypothesized,
the teachers did experience significant attitudinal changes. The purpose of the in-service programs in both the Marino (14) and Goldstein (7) studies was to sensitize elementary teachers to the needs of students. Goldstein's subjects were twenty-four elementary teachers who enrolled in a thirty-hour in-service program. Marino's thirty-two subjects were involved in a thirty-one hour in-service over a four-month period.

In efforts to change teacher attitudes, educators have turned to in-service training. Such in-service produced mixed results. Studies by Pixley (18), Gyves (9), and Ringis (20) were conducted to determine if in-service programs designed to alter teachers' instructional behavior could affect attitudinal changes. Pixley's study involved an in-service program to aid teachers in acquiring the necessary skills to implement the inquiry process. He revealed no significant changes in teacher attitudes, as measured by student perceptions.

Gyves (9), in studying the results of an in-service program to alter teachers' instructional behavior toward team teaching as well as their attitudes toward students, also found that the in-service program made no difference. However, Ringis (20) concluded that an in-service program designed to produce cognitive changes can also effect attitudinal changes. His in-service study was designed to provide teachers with the ability to produce and use instructional materials to
facilitate individualized instruction. The results supported the hypothesis that teacher attitudes would change in support of individualized instruction.

An interesting study related to racial bias was conducted by Richey (19). The intent of this Mississippi study was to determine if social distance attitudes of racially mixed faculties would change by interaction in a desegregation in-service program. The 128 teachers in the study were pretested and posttested following an in-service program which spanned six months. There was a significant, positive difference as a result of the in-service program.

Kampsnider (12) investigated the effectiveness of the Interaction Laboratory for Teachers in changing teacher attitudes of dogmatism and ressentience. Ressentience was defined as a less-conscious resentment representing repressed revenge, hatred, malice, envy, or the impulse to detract and to spite. Following thirty hours of training, according to the Interaction Laboratory for Teachers, the level of ressentience was significantly lower for those teachers who participated in the in-service program. The data revealed no significant difference in the levels of dogmatism between the groups.

Another study involving an in-service program designed to change teachers' attitudes produced significant results. McClintock (15), following an in-service designed to increase teachers' use of positive verbal behavior toward children
who misbehaved, found that teachers did become more consistent in using positive comments.

Bailey (2) discovered that, following three days of sensitivity training, a high school faculty did not undergo changes in fairness or sympathetic understanding as rated by their students. Likewise, Jones (11) found no significant changes in teacher attitudes following an in-service program to develop in teachers a change toward more open, responsive, positive teaching.

Limitations of the Study

This study was limited to elementary teachers from three elementary schools in a North Central Texas suburban school district. The three elementary schools which participated in this study were comprised primarily of student populations from the white middle and upper-middle social strata.

Basic Assumptions

The basic assumptions of this study are as follows:

1. That significant changes in pretest and posttest scores will be due to the in-service programs and

2. That the instruments selected will provide valid measures of teacher attitudes.
Procedures for Collection of Data

Population

The population in this study comprised selected elementary teachers in a middle-class suburban school district in the north Texas area.

Selection of the Sample

Three elementary schools were selected, with approximately thirty-five teachers each. The schools were selected on the basis of comparable enrollment and age and years experience of the teachers. The school in the Method A in-service program had an average teacher age of thirty-two years and an average teacher experience of 7.7 years. The school in Method B in-service had an average teacher experience of 8.5 years and an average teacher age of thirty-seven. The school involved in the Method C in-service had an average teacher age of thirty-four years and an average teacher experience of 7.4 years.

Research Design

A three-group pretest-posttest retention test design was utilized in this study. Each group was pretested at the beginning of the in-service program and posttested at the conclusion of the program and again three months after its completion.
Experimental Variable

The experimental variable was the in-service programs. The three experimental treatments were Method A--Teacher Effectiveness Training (T. E. T.) in-service program; Method B--modified regular district in-service program; and Method C--the regular district in-service program.

Method A was an in-service program conducted over a three-and-one-half-month period involving lectures, discussions, films, tape recordings, role playing, and readings designed to develop in teachers positive, accepting, humanistic attitudes toward students. It was conducted for six hours on each of the following days: October 11, 1976, October 29, 1976, November 24, 1976, and January 31, 1977. A facilitator trained in T. E. T. by the Effectiveness Training Institute conducted each session.

Method B was the regular district in-service program, with the addition of a four-hour program involving the viewing of four films followed by discussion. The films and subsequent discussions focused upon the development of positive, accepting, humanistic attitudes toward students. The principal of the school served as program facilitator. The films and the dates shown were as follows:

Glasser on Discipline--October 11, 1976;
The Identity Society--October 29, 1976;
The Humanity of Teaching--November 24, 1976;
The regular district in-service program for the Method B school consisted of the following.

October 11, 1976: A building-planned program involving the demonstration and sharing of art ideas.

October 29, 1976: A district-planned "Swap Shop" of teaching ideas in art, science, and social studies in which teachers in five different schools share ideas.

November 24, 1976: A building-planned program designed to assist classroom teachers in teaching physical education in addition to an activity taken from Marc Robert's book *Loneliness in the Schools*. The activity involves listing items that principals do to isolate themselves from teachers and what can be done to overcome this isolation.

January 31, 1977: A building-planned program assisting teachers in teaching art.

Method C was the regular district in-service program which was not designed to create attitude changes. The regular district in-service program was conducted by district personnel and individual building personnel on October 11,

The regular district in-service program for the Method C school consisted of the following.


January 31, 1977: A continuation of the November 24 program.

Procedures for Analysis of Data

The pretest and posttest data derived from the semantic differential instrument were scored according to procedures established by Osgood (17). The individual scores were then transcribed to data sheets for analysis by the North Texas State University Computer Center.

A t test was applied to the data relating to hypotheses 1, 2, and 3. Hypotheses 4, 5, and 6 were tested, utilizing analysis of covariance with the pretest scores used as
covariants. Analysis of covariance was applied to the data in investigating hypotheses 7 and 8, with the posttest scores used as covariants.


CHAPTER II

REVIEW OF THE LITERATURE

There are sufficient data to indicate that many teachers are not humane in their relations with students. The evidence is clear that the kind of environment created by teachers does affect the way pupils feel about themselves and others. Furthermore, students seem to learn more when taught by humane, caring teachers. The purpose of this chapter is to provide data relating to the need for humane teachers, environmental and cognitive implications of teacher attitudes, and the role of the in-service program in changing teacher attitudes.

The Need for Humane Teachers

The teacher plays an important role in the lives of her students. Many teachers recognize this fact, as evidenced by the following:

I have come to a frightening conclusion. I [the teacher] am the decisive element in the classroom. It is my personal approach that creates the climate. It is my daily mood that makes the weather. As a teacher I possess tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humanize, hurt or heal. In all situations it is my response that decides whether a crisis will be escalated or de-escalated, a child humanized or de-humanized (20, pp. 16-17).
The attitudes and behavior of the adults in the schools make the schools what they are. Gordon (26) believes the best way to judge a school is by assessing the attitudes the adults hold toward the children they serve.

Humanization, defined by Murphy and Murphy (38), is the product of good human relationships and is possible only if the child feels that his teacher knows him, understands him, and cares for him. Education is failing, charges Glasser (21), if schools do not provide a warm human environment that makes a child want to go to school and believe that his teacher cares for him. It is essential that teachers care for children and overtly demonstrate this care (21). Wilhelms (53) believes that affection and warmth are necessary elements for humane schools.

The need to love and be loved and the need to feel worthwhile to oneself and to others are, according to Glasser (22), man's, hence children's, basic psychological needs. Tolar (50) contends that, in order to promote good mental health in children, teachers must accept children unconditionally, be empathetic and genuine and relevant in their teaching. Aspy (6) believes that constructive human relations involves several dimensions: (1) empathy—not sympathy but being able to put oneself in anothers' place, (2) caring—love, positive regard, (3) congruence—genuine, authentic feeling for others. The constructs of empathetic understanding, congruence, or positive regard are posited
by Rogers as those characteristics needed in order to change another (9). The opposite of this is also true; that is, one who does not possess these characteristics will not be able to change another (9). Aspy hypothesized that people who received high levels of empathy, congruence, and positive regard would achieve more. His numerous studies cited later support this hypothesis. Schools have improved their physical paraphernalia, Gordon contends (26), but have improved the least where it matters most, human relations.

Many students are treated in schools with a disrespect unequaled in any other societal institution. Respect for students is an integral ingredient of humane schools. Holt (30) and Silberman (46) have criticized the schools for their lack of respect for children. Using threats to motivate and appealing to guilt are tactics utilized in numerous classrooms today (50). Such strategies are harmful to the mental health of children. Tolar (50) found that these techniques retard the child's emotional development and produce psychological conflict.

Summarizing from a study involving 3,000 teachers, Frymier (18) concluded that many teachers just do not like children. The instrument used in this study was a fifty-four-item questionnaire with a five-point scale ranging from very positive feelings to very negative ones. Not a single item in the positive direction pertained to children.
Branan (12) reported a study that attempted to examine man's most negative experiences. Each of 150 lower- to middle-class college students was to write in detail the two most negative experiences which he felt had affected his personal development. The 300 responses were divided into either interpersonal or nonpersonal, with 257 responses falling into the interpersonal category. The large category of negative responses involved interaction with teachers. The incidents described consisted of humiliation in front of the class, unfairness in evaluation, destruction of self-confidence, personality conflicts, and embarrassment.

Silberman (47) reported four prevalent attitudes from an analysis of teacher's descriptions of their pupils. The four attitudes were (1) attachment, personal pleasure, and affection in pupil relations; (2) concern, sympathy, and support for the pupil's problems; (3) indifference and lack of pupil involvement; and (4) rejection. The teachers were ten female third-grade teachers from five suburban, midwestern communities. Each teacher was asked to select a pupil to be placed in each category. The control pupils, one male and one female, were selected randomly from the remaining pupil roster. Teacher behavior was monitored for twenty hours in the classroom. The six observed pupils were then asked to ascertain whether they were aware of the teacher's attitude toward them. Each pupil was requested to compare himself to the other five pupils, according to the
amount of specific teacher attention he felt he had received. The categories of teacher attention were (1) contact, (2) positive evaluation, (3) negative evaluation, and (4) acquiescence.

An analysis of the data indicated that pupils to whom teachers felt an attachment received more positive evaluation than all other groups, while pupils for whom teachers felt concern received more of every kind of teacher attention. The group the teachers felt indifferent toward received less contact but did not differ from the control group on other categories. The rejected group received similar amounts of all categories of teacher attention, but this was primarily expressed through an increase in negative evaluation. Interaction with pupils in the group for whom teachers felt indifference was brief and infrequent. An analysis of student perception revealed that these pupils were able to predict the amount of contact, negative evaluation, and acquiescence they received and the amount of negative evaluation and acquiescence their classmates received. It is interesting and significant to note that they could not predict the amount of positive evaluation for themselves or their classmates.

Silberman concluded (1) that teacher attitudes are generally revealed through their behavior and (2) that pupils are aware of teachers' expressions of attitudes toward themselves and their classmates. Teacher attitudes reflected in their behavior may influence not only a pupil's perception
of himself in relation to an important adult, but also his perception of other pupils.

Replicating Silberman's study, Good and Brophy (25) supported Silberman's findings. The group the teachers felt indifferent to were treated indifferently, receiving little contact. The teachers in this sample demonstrated more avoidance of rejected pupils, often failing to give them feedback on their performances and characterizing what feedback they did give with negative criticism. Girls and high achievers appeared to be favored, since twice as many boys as girls were selected to the group teachers felt rejecting attitudes toward, and those pupils teachers felt an attachment to contained mostly high achievers.

Children tend to become the kind of people their teachers are. "We must use ourselves in positive creative ways to provide the kind of image, the kind of stimulus, the kind of feedback that helps young people become the type of people we want them to become. We must use ourselves to help young people learn to love" (18, p. 25).

Environmental Implications

Following a study concerning teacher-pupil relationships and social perception, Gage and Succi (19) concluded that teachers' accuracy of social perception is positively related to their effectiveness in eliciting positive effects in pupils. The study was based on the premises that (1)
teachers who value pupils positively should perceive how students see themselves better than those teachers who do not value pupils as positively and (2) teachers who perceive student attitudes more accurately would be regarded more favorably by their pupils. Estimates were made of (1) the accuracy of teachers' perceptions of pupils' attitudes, (2) the favorableness of pupils' attitudes toward their teachers, and (3) the relationship between (1) and (2).

Another study (15) concerned with children's perceptions of their teacher's feelings toward them resulted in more significant findings. The study by Davidson and Lang sought to determine what relationship, if any, existed between children's perception of their teachers' feelings toward them and the variables (1) self-perception, (2) academic achievement, and (3) classroom behavior.

Subjects were 89 boys and 114 girls attending grades four to six in a New York City public school. Because of the nature of the check list used, the children were in the upper one-half of their class in reading ability. The students were asked to complete a check list of what they thought their teacher thought of them and what they thought of themselves. The teachers rated the students on academic achievement and on ten behavioral and personality characteristics. A positive correlation of .82, significant at the .001 level, was found between the children's perception of themselves and their reading of their teachers' perception.
of them. Those children who had a high perception of themselves also felt the teacher had a similar perception of them. There also existed a positive correlation between favorable perception of teachers' feelings and academic success. The relationship between favorable perception of teachers' feelings and desirable classroom behavior was also positive and significant at the .001 level.

Children whom teachers rated as disorderly, defiant, unfriendly, or troublesome perceived their teachers' feelings toward them as being less favorable than the children who were rated as being eager and cooperative. Sex differences in all variables favored the girls. Differences in social class were in the direction one would expect; teachers favored students in a higher social class. Davidson and Lang findings support the notion that teachers' feelings of acceptance and approval are communicated to the child and perceived by him as positive appraisal which, in turn, motivates the child to seek further approval.

Aspy and Hutson (7), experimenting on the premise that success or hope of success nearly always increases interest and effort, found that teachers who are rated high for promoting success perform differently from those who are rated low. Success was defined as a process employed by a teacher in which she attends to and uses the students' cues which indicate what they want to do with class time.
A five-level scale for success promotion was devised with a reliability of .80. Audio tapes of sixty elementary teachers were analyzed by two experienced raters according to Flanders' Interaction Analysis (95 per cent agreement) and Carkhuffs Scale (85 per cent agreement by three raters), which assesses levels of empathy, congruence, and positive regard. The Success Promotion Scale was applied to each tape by three raters (85 per cent agreement).

The sample was divided into those rated high in success promotion and those rated low, with thirty in each group. The high group scored higher on Carkhuff's Scale and Flanders category 3 (praise) and 9 (use of student-initiated ideas) and lower in category 7 (criticism) than did the low group. The low group's highest score was category 7 (criticism), and their lowest score on Carkhuff's Scale was empathy, which was the high group's highest score. The groups were clearly differentiated at a significance of $P=\alpha .001$. Aspy and Hutson concluded that the characteristics that tend to promote student success involve the use of praise, avoidance of criticism, the use of student-initiated ideas, awareness of the meaning that a situation has for a student, genuineness in responses, and display of positive regard for the student.

Christensen (14) investigated the relationship between teacher warmth and permissiveness and achievement. The investigator's hypotheses were as follows: (1) positive,
affective response (warmth) of teachers is positively related to achievement gains, (2) permissiveness of teachers is negatively related to achievement gains, (3) teacher warmth and permissiveness interact significantly in that warm, directive teachers will produce the greatest achievement gains, and (4) affective needs of pupils interact significantly with teacher warmth and permissiveness. Subjects were ten fifth-grade classes, ten fourth-grade classes, and the teachers of these twenty classes in a suburban New York school. A Warmth and Permissiveness Scale, devised by the author, and the Cognitive-Affective Scale, constructed by Della Piana and Gage, were given to the fourth graders. The affective scale was given to the fifth graders, and the Iowa Test of Basic Skills was given to both fourth and fifth graders during the first month of school.

The idea that warm teachers are permissive was not substantiated. Warmth and permissiveness were found to be separate and not related. Christensen did find that teacher warmth was significantly related to vocabulary and arithmetic achievement. A positive relationship was also found by Brown (13) between learner supportive statements or questions and student improvement in arithmetic for both overachievers and underachievers.

Replicating an earlier study (29), Harvey and others (28) found that teachers with contrasting belief systems differed considerably in the kind of classroom environment
they created for children. The main purpose of the study was to assess the relationship between students' performance and teachers' resourcefulness, dictatorialness, and punitiveness. Expectations were that teachers of more abstract belief systems would be more resourceful, less dictatorial, less punitive and that their students would perform better educationally.

The teachers' resourcefulness, dictatorialness, and punitiveness were measured by a fourteen-item scale, which included such items as warmth toward students, perception of student needs and wishes, flexibility in meeting the needs and interests of the students, maintenance of relaxed relationships with children, encouragement of individual responsibility, and free expression of feelings, rule orientation, determination of classroom procedures, need for structure, and punitiveness.

Students participating in the study consisted of ninety-two kindergarten and twenty-six first-grade classes in eighteen rural and urban Colorado school districts. The students were rated by the observers using a thirty-one-item scale; they were rated as a class, not as individual students. The "This I Believe" Test and the Conceptual Systems Test were completed by the participating teachers. Both tests are tests of concreteness-abstractness of belief systems. All teachers were observed and rated on resourcefulness, dictatorialness, and punitiveness. Scores on the "This I
Believe Test and the Conceptual Systems Test were compared to the observers' ratings.

Teachers classified as being concrete were significantly less resourceful and significantly more dictatorial than those not considered concrete. Abstractness correlated significantly and positively with resourcefulness and negatively with dictatorialness and punitiveness. The authors concluded that these findings "make it clear that variation in the concreteness-abstractness of teachers' beliefs generates theoretically consistent and predictable parallels in the overt behavior of these individuals" (28, p. 159).

Abstractness-concreteness was classified into four levels, with level one being the most concrete and level four the most abstract. Only twelve teachers could be classified abstract, and levels three and four had to be combined to get this number. However, fifty were identified as level one with no difficulty. Earlier studies by the authors reveal that only about 6 to 7 per cent of teachers operate at level four.

When the variable of student performance was introduced into the data, the study revealed that students of abstract teachers, when compared to those of concrete teachers, were significantly more involved in classroom activities, more active, higher in achievement, and less concrete in their responses; these students also were less inclined to seek
nurture, were cooperative and more helpful than their counterparts. Both teacher dictatorialness and punitiveness correlated significantly and negatively with pupil cooperation, involvement, activity, achievement, and helpfulness and positively with student concreteness of response. The results of this study by Harvey and others (28) "make it clear that the concreteness-abstractness of teachers' belief systems affect their overt resourcefulness, dictatorialness and punitiveness in the classroom. In addition, the results show that the classroom behavior of the teacher and the behavior of the students are significantly related" (28, p. 163).

Cognitive Implications

Numerous studies have demonstrated vividly the important relationship between humane teacher attitudes and behavior and student achievement. Previously cited studies (7, 14, 15, 25, 28, 29) have linked teachers' humane characteristics and beliefs to the kind of environment they create for learning. Brown (13) and Christensen (14), also cited previously, found relationships between the humane qualities of teachers and arithmetic achievement.

Evidence supportive of Brown's and Christensen's studies was found by Vakil (52). The purpose of Vakil's study was to examine the relationships of classroom climate with cognitive and affective variables in a classroom learning situation.
Subjects for the study were fifty-six groups of girls and boys and their teachers in two midwestern, suburban school districts. The instrument used was the Stanford Achievement Test and a sociometric questionnaire. Trained interaction-analysis observers recorded teachers' verbal behavior for one month. Analysis of the data showed that pupils with integrative (high encouragement-low criticism) teachers had a more positive attitude for their teachers than did those of rejective or nonintegrative teachers; they also developed more positive attitudes for other pupils. Furthermore, pupils with nonrejective teachers learned math computations better than did pupils of nonintegrative teachers.

A study by Kleinfeld (35) was undertaken to determine if instructor warmth would increase learning by Eskimo and white students. Warmth was to be communicated by smiling, touching, and close body distance. Twenty Eskimo and twenty white students, who were equally divided by sex, were selected at random from the ninth grade of an urban high school. Each pupil attended, individually, two college guidance and information sessions which were conducted by the same female instructor. The sessions were divided into three areas: (1) question answering, in which the instructor asked the pupil four questions about one of his classes; (2) question asking, in which the instructor presented information about two unfamiliar colleges; and (3) student verbal answers to eight questions measuring acquisition of
information about the colleges. All of the pupils attended a warm and a neutral session. The instructor in the warm session sat at a distance of thirty inches, smiled frequently, and touched the pupil twice. In the neutral session, the instructor sat at a distance of eighty inches and did not smile or touch the student. Students were selected randomly to attend first warm and then neutral sessions or first neutral and then warm sessions. The instructor was the same for all sessions.

The results of the data revealed that warmth had a significant (<.01) effect on learning for all groups but only in the neutral-warm sequence. Kleinfeld concluded that there may have been a carry-over effect of warmth in the warm-neutral sequence which resulted in no difference in learning in the two sessions, since each had, in fact, the same instructor. However, Eskimo males did show a significant increase in learning in the warm sessions regardless of the sequence.

Aspy (5, pp. 44-45) investigated the relationship between teachers' classroom behavior and their students' level of cognitive functioning. Teachers' classroom behavior was measured by Flanders' Interaction Analysis and their level of interpersonal functioning was measured by Carkhuff's scales. Carkhuff's scales are based upon Rogers' idea that the facilitating effects of an interpersonal relationship are related to levels of empathy, congruence, and positive
regard provided by the teacher. The level of student cognitive functioning was measured by Bloom's Taxonomy of Educational Objectives. Bloom's Taxonomy differentiates six levels of cognition, namely knowledge, comprehension, application, analysis, synthesis, and evaluation.

This study involved the assessment of instruction of reading groups taught by forty female elementary teachers. The students in the classrooms of twenty of the teachers remained on level one of Bloom's Taxonomy, while students in the classrooms of the other twenty teachers achieved levels two to six. All classes were composed of students with intelligence quotients (IQ's) of 90 to 120. Trained raters evaluated taped class sessions according to Carkhuff's Scale for empathy, congruence, and positive regard and according to Flanders Interaction Analysis and Bloom's Taxonomy of Educational Objectives. The group who attained levels two to six had teachers who scored higher in empathy, congruence, and positive regard than the group who remained at level one. However, positive regard was the only attribute judged significantly higher ($<$ .001).

In a study similar to the above, Aspy (5, pp. 41-45) found that all three variables (empathy, congruence, and positive regard) were positively and significantly related to achievement, as measured by the Stanford Achievement Test. The two studies, taken together, Aspy concluded, "indicate that all three interpersonal conditions facilitate cognitive
gain, but that once the cognitive processes move beyond Level 1 (memory and recognition), positive regard is more facilitative of cognitive functioning or 'thinking' as a process within the instructional situation" (5, p. 45).

Further support for the idea that students with humanistic teachers learn more was uncovered in another study by Aspy (5, pp. 59-64). Six third-grade teachers taped their interaction with reading groups during one week in March and one week in May of the same year. The teachers recorded two hours of classroom interaction from which eight four-minute segments were selected randomly. Three trained raters assessed levels of empathy, and the six teachers were divided into two groups: three teachers in a more empathetic group and three in a less empathetic group.

The students selected included (1) the five boys with the highest IQ's, (2) the five boys with the lowest IQ's, (3) the five girls with the highest IQ's, and (4) the five girls with the lowest IQ's. The subjects were given five subtests of the Stanford Achievement Test during September and again in May. The subtests consisted of word meaning, paragraph meaning, spelling, word-study skills, and language. In paragraph meaning, language, word meaning, and word-study skills, the average amount gained by the students of the more empathetic teachers was significantly more than that gained by students of the less empathetic teachers. The overall total gain was significantly greater for the students
of the more empathetic teachers. This study is supportive of Aspy's idea that there is a positive relationship between teacher empathy and cognitive student growth.

The Role of In-Service Programs in Humanizing Education

The evidence appears convincing that humanistic teacher attitudes and behavior have an important effect on student self-concept and achievement. The problem, then, is how to bring about more humanistic functioning by teachers. Changes in teacher behavior are dependent upon desirable teacher attitudes (39). "Unfortunately," Glasser contends, "teachers have been trained . . . not to get involved with students, but to remain objective and detached" (22, p. 158). Aspy believes that "interpersonal facilitation" can be improved, that it is possible for people to learn to be more caring and understanding of others (5, p. 5). Probably the most reasonable means of bringing about a humanistic attitudinal change in teachers is through the local in-service program.

An in-service model in which teachers evaluated their interpersonal relationships with students was developed by Eggert (16). This six-step program was designed to lead the teacher to work toward expressing empathy, acceptance, care, and genuineness for the student. Teachers evaluate themselves by the use of video tapes.

Certain changes in teacher attitudes are necessary in order for teachers to accept and utilize particular
instructional techniques. An in-service program designed to produce changes in attitudes favorable to individualized instruction was studied by Ringis (43). The Minnesota Teacher Attitude Inventory and classroom observations were utilized to note changes in behavior of the twenty-six subjects. A significant change did occur, which led to the conclusion that an in-service program designed primarily for cognitive change can affect attitudes.

Bowers and Soar (11) studied the relationship between human-relations training, teacher personality, and teacher behavior in fifty-four elementary teachers. Human-relations training was designed to help teachers develop skills in using classroom instructional groups and to help pupils work more effectively in small groups. Overall, no relationship was found between the in-service program and change in teacher behavior. Certain relationships did achieve statistical significance at extreme positions of deviation; the best adjusted teachers became more effective after the in-service program, but the less well-adjusted became less effective.

An in-service program, investigated by Pixley (41), attempted to assist teachers in acquiring skills for using the inquiry approach, including the development of attitudes consistent with that approach. The purpose of the study was to analyze the change in teacher attitudes and behavior, as perceived by students, resulting from a Title I In-Service
Inquiry Training Program. A total of fourteen elementary teachers participated in three Saturday in-service sessions of six hours each. The pretest-posttest design resulted in no significant change. However, a majority of the pupils involved indicated that those teachers who participated in the in-service program listened to the ideas of students without making value judgments.

An interesting study related to racial bias was conducted by Richey (42). The intent of this Mississippi study was to determine if social distance attitudes of racially mixed faculties would change through interaction in a desegregated in-service program. The 128 teachers in the study were pretested and posttested following an in-service program which spanned six months. The Bogardus Social Distance Scale was used for both the pretest and posttest. There was a significant and positive difference as a result of the program.

Numerous in-service programs that have attempted to develop more humanistic attitudes in teachers have been studied. Kampsnider (33) investigated the effectiveness of the Interaction Laboratory for Teachers in changing teacher attitudes of dogmatism and ressentience. Ressentience was defined as a less-conscious resentment representing repressed revenge, hatred, malice, envy, or the impulse to detract and to spite.
The study involved 300 secondary and elementary urban school teachers. The control group received no special training, according to the Interaction Laboratory for Teachers. A posttest and, six months later, a post-posttest were given to determine differences in ressentience and dogmatism. The National Teacher Questionnaire and the Rokeach Dogmatism Scale were used to test the levels of ressentience and dogmatism, respectively. The posttest identified a significant difference at the $p < .001$ level between the groups in ressentience, indicating that the experimental group's level of ressentience was lowered owing to the in-service program. The post-posttest revealed identical results; hence the difference had been maintained. However, on both the posttest and the post-posttest, the difference in the levels of dogmatism between the groups was not significant.

Other studies (17, 24, 37) involving in-service programs designed to change teacher attitudes have revealed significant results. For example, one such study (37), conducted over a two-year period, resulted in significant changes in teacher attitudes and behavior. Twelve teachers volunteered to participate in a program, the purposes of which were to increase teachers' use of positive verbal behavior toward students who misbehaved and to identify specific factors involved in the change of teacher attitudes within the local school setting. The use of positive behavior patterns toward children increased in that (1) ten out of eleven
volunteers (one withdrew) used more positive comments with children who misbehaved, eight changing 10 per cent or more, and (2) ten of the eleven teachers became more consistent in their practice of the type of comment they said they would use in class.

The purpose of Goldstein's (24) investigation was to sensitize elementary teachers to the needs of children, to emphasize the teacher's role as a significant adult in the lives of their pupils, and to train elementary teachers in the technique of analyzing their classroom interaction pattern with students. Flander's Interaction Analysis was the specific technique used in analyzing classroom interactions. The specific attitudes that were investigated were (1) attitudes predictive of positive student interpersonal relationships, (2) child-control attitudes held by teachers, (3) the teachers' opinions about children on a favorable-unfavorable continuum, and (4) punitive attitudes by teachers toward their students.

A total of twenty-four elementary teachers participated in the thirty-hour in-service program that spanned fifteen weeks. Each week one two-hour session was conducted. Teacher attitudes were measured by the Minnesota Teacher Attitudes Inventory. Two audio tapes from each classroom were evaluated by raters to determine classroom interaction according to Flanders' model. Analysis of the data revealed significant, positive changes in attitudes following the
in-service program. Positive teacher attitudes were found to be predictive of positive student-teacher interpersonal relationships.

Emans (17) studied the effects of an in-service program conducted over a nine-month period and found significant changes. Changes toward more humanistic attitudes by the 180 teachers, as measured by the Educational Attitude Test and supervisor’s observations, were identified. The observers found more significant changes in behavior than did the Teachers Educational Practices Scale administered to the subjects. Emans concluded that the in-service program was effective in changing teacher attitudes but that the day-by-day practices of teachers lag behind their attitudes and beliefs.

Another in-service program also conducted over a nine-month period revealed results similar to those on Emans' study. The purpose of the study was to determine the relative attitudinal change in a more humanistic direction of thirty teachers following the in-service experience. A significant, positive change did occur.

Marino (36) conducted a study to determine what effect a concentrated in-service program, geared to sensitizing elementary teachers to the needs of children, would have on the attitudes of teachers. All of the teachers in a school district completed the Minnesota Teacher Attitude Inventory and the Rokeach Dogmatism Scale, Form E. The fifty-one
teachers whose scores on the Minnesota Teacher Attitude Inventory fell more than one-half of a standard deviation below the mean were classified as having poor attitudes toward children and were considered for placement in the experimental design. From this group thirty-two subjects were selected randomly and sixteen placed in the experimental group.

The experimental group participated in the in-service program which was designed to involve teachers actively in experiences and activities which would sensitize them to the needs of students. The program included seminar sessions, small group sessions, and individual consultations, in all a thirty-one-hour program covering a four-month period. The teachers did not know that attitude change was the focus of the project. At the conclusion of the in-service program, the subjects were tested again. A significant correlation of -.60 was found between the scores on the Minnesota Teacher Attitude Inventory and the Rokeach Dogmatism Scale, Form E, indicating that the more positive a teacher's attitude toward students (a high MTAI score), the more open-minded (a low Dogmatism score) a teacher was. The teachers who participated in the in-service program experienced significant gains on the Minnesota Teacher Attitude Inventory, demonstrating the effectiveness of the in-service program in achieving its goals of humanizing teacher attitudes.
A human-relations workshop in the public schools of Quincy, Massachusetts, was reported by Israel and Savitsky (31). Following this workshop, which utilized sensitivity training, the participants reported a heightened sense of awareness in their lives, and they began to consider how they affected others. A similar in-service program, reported by Ottaway (40), was designed to help individuals move toward deeper personal involvement. The teachers and social workers who participated concluded that they gained a better understanding of themselves and of their relations to others.

Other in-service programs have not been as successful. Gyves (27), for example, reported on an in-service program designed to promote teaching methods which emphasize objectives in the higher level cognitive and affective domains of Bloom's Taxonomy. The degree to which the in-service program influenced attitudes toward students and teaching was also investigated. A pretest-posttest design was utilized, with the Minnesota Teacher Attitude Inventory the measuring instrument. The twelve teachers involved in the in-service program showed no attitude change at the conclusion of the program, as measured by the MTAI.

Another study (32), also utilizing the Minnesota Teacher Attitude Inventory in a pretest-posttest design, reported similar results. This in-service program, conducted over a six-week period, was designed to improve
teacher attitudes and teacher-pupil communications. No significant difference was found between the pretest and posttest results.

The purpose of a study by Bailey (10) was to determine the effects of sensitivity training on a high school faculty. A pretest, posttest, retention test design was used, with a student-opinion questionnaire as the measuring device. The faculty underwent a sensitivity-training laboratory workshop lasting three days and three nights. Following the training sessions, students rated their teachers on nine items. The items concerned with teacher humaneness were sympathetic understanding and fairness, and the posttest ratings on these items were not significantly different from the pretest ratings. The faculty reported, however, that they were more sensitive to others as a result of the sensitivity-training workshop.

Anderson (1) reported a two-year study designed to bring about changes in attitudes, understanding, and performances of teachers. The in-service program utilized workshops, child-study groups, cooperative curriculum study with the University of Chicago, resource persons, and summer workshops. The experimental group consisted of thirty-three teachers, while the control group had thirty. Data were collected through observations and questionnaires. Although the experimental group showed positive gains in all areas evaluated, none were significant.
Even though attempts to change teacher attitudes via in-service programs have been only partially successful, the successes have been numerous enough to warrant continued exploration of this avenue of humanizing the classroom. Few in-service programs have utilized commercially packaged programs, such as Teacher Effectiveness Training, for helping to bring about positive, humanistic attitudes.
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CHAPTER III

METHODS AND PROCEDURES

Subjects

The subjects of this study were 70 teachers from three elementary schools in a middle- to upper-middle-class suburban school district in North Central Texas. The schools were selected on the basis of comparable student enrollment, age, and years experience of the teachers.

The school participating in the Method A in-service program had an average teacher age of thirty-two and an average teacher experience of 7.7 years. The school which experienced the Method B in-service program had an average teacher age of thirty-seven and an average teacher experience of 8.5 years. The school involved in the Method C in-service program had an average teacher age of thirty-four and an average teacher experience of 7.4 years.

Instrumentation

All teachers in the study were administered a semantic differential Attitude Inventory prior to, immediately after, and three months following the in-service programs. The Dogmatism Scale, Form E was also administered to all subjects at the conclusion of the in-service program and again three months later. Both instruments were administered by
the author in group settings to each of the three elementary school faculties participating in the study. The instruments were hand scored, and the individual scores were transferred to data sheets for processing by the North Texas State University Computer Center.

**Semantic Differential**

The semantic differential is a combination of controlled association and scaling procedures. The subject is provided with a concept to be differentiated and a set of bipolar adjectival scales against which to differentiate the concept. The subject must indicate for each item (pairing of a concept with a scale) the direction of his association and its intensity on a seven-step scale. The semantic differential is a technique rather than a specific test since the concepts to be differentiated, as well as the adjectival scales, will change to fit the specific purpose of the researcher. For the purpose of this study, sixteen concepts relating to teacher attitudes were judged on eight bipolar adjectival scales. Teachers were judged more humanistic the closer they scored toward the most favorable adjectives. (See Appendix A.)

For the purposes of scoring, the most unfavorable scales are assigned the score of "1" and the most favorable poles the score of "7." A score that falls at the origin, defined by "4" on the scale, represents neutrality of
attitude. Thus the sum of all the ratings is the attitude score. The properties of direction and intensity of attitude are readily accommodated by this technique. Direction of attitude is simply indicated by the subject's selection of polar terms and intensity by how far along the dimension from the origin the score lies.

The following example illustrates how a respondent might score on an adjectival scale for the concept "Democracy." The most favorable adjectives have a score of "7" and the least a score of "1." The respondent scored 4 on the first scale, 7 on the second, 6 on the third, and 6 on the fourth, for a total score of 23.

Democracy

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The reliability of the semantic differential has been substantiated in several studies. As a part of Osgood's (2) first factor analytic study utilizing the semantic differential, 40 items sampled from the total of 1,000 items were repeated on a single page at the end of the form; this sample included 40 different scales (of 50 used in the experiment) and all 20 concepts, each appearing twice. Test and retest scores were correlated across the 100
subjects and the 40 items, producing an N of 4,000. The resulting coefficient was .85.

Analyzing Osgood's original data, Wilson (2) found that a response on the second test could be predicted from a response on the first test. He found that all 40 test-retest items yielded a significant relationship at the .01 level or better.

In an experiment designed specifically to test the reliability of the semantic differential, Osgood administered the semantic differential twice to eight groups of subjects with approximately twenty-five in each group. The intervals between testings were varied for different groups as follows: three, six, twelve, twenty and thirty minutes, one day, one week and three weeks. The first analysis consisted of computing the average absolute deviations across the subjects in each time interval. This was calculated for all items separately and for the average of all items involving the same factors (the factors being potency, activity, and evaluation). The average deviation of all items ranged from .35 scale units at three minutes to .78 scale units at three weeks.

When data from this same experiment were analyzed for groups of subjects to determine the probability of average deviations in scale units, random errors tended to cancel out in the averaging process. Osgood found the probability of an average deviation of greater than .50 to be .024,
.009, and .017 for the three factors (evaluative, potency, activity).

Test-retest reliability data have been obtained by Tannenbaum (2). Six concepts were judged against six evaluative scales by 135 subjects on two occasions separated by five weeks. The test-retest coefficients ranged from .87 to .93, with a mean r of .91.

An instrument has face validity if it appears reasonable and the distinctions it provides correspond with those made by most observers without the aid of the instrument. Based on its relationship with the results that would be expected from common sense, the semantic differential appears to be valid.

Validation studies using the semantic differential in attitude measurement have been conducted, comparing the semantic differential with Thurstone scales and a Guttman-type scale (2, p. 194). In the Thurstone scales study, three concepts were rated, using the semantic differential as well as the Thurstone scales. One group was given the semantic differential followed one hour later by the Thurstone, and the second group had the reverse order. Two weeks later the subjects again took the tests, but their respective orders were reversed. All scores correlated from .74 to .82; but, when corrected for attenuation, each was raised to .90 or better.
A Guttman-type scale was developed to measure the attitudes of farmers toward crop rotation. A separate study used the semantic differential in connection with a series of television programs concerned with agricultural practices, one of which was crop rotation. Twenty-eight subjects were identified who had completed both testing instruments, with the time between the two tests ranging from three days to nearly four weeks. The rank order correlation was significant at the .01 level.

Heise (4), in a comprehensive review of the semantic differential and attitude research, found the technique to be widely used for measuring attitudes. He concluded that the semantic differential was valid as an attitude measurement and could be supported by a number of studies which compare semantic differential measurements with attitude measurements on traditional scales.

**Dogmatism Scale**

The Dogmatism Scale was designed to measure the openness or closedness of individuals' belief systems and to serve as a measure of general authoritarianism and general intolerance. A person scoring high on the scale would be expected to be a closed, authoritative individual, intolerant of beliefs not congruent with his own. In the closed system, the authority power is not dependent upon cognitive correctness, but upon the ability of authority to administer reward and punishment.
The closed person evaluates others according to their agreement or disagreement with his own belief system. Obviously, the open individual is the opposite of the closed person and is willing to accept data from sources other than his own belief system. The open person is not threatened by the present and accepts others without evaluating.

The Dogmatism Scale Form E consists of forty statements for which a respondent indicates his degree of agreement or disagreement. Answers range from "I agree very much," with a value of +3, to "I disagree very much," which has a value of -3. For all the items, agreement is scored as closed and disagreement as open. The 0 point is excluded in order to force responses toward agreement or disagreement. For scoring purposes, the scale is converted to a 1-to-7 scale by adding a constant of 4 to each item score. The total score, which could range from 40 to 280, is the sum of scores on all items.

Reliability data were obtained from samples in the Midwest, New York, and England (7). The initial instrument consisted of fifty-seven items and had a corrected reliability of .70. Following an item analysis, fourteen items were eliminated to obtain Form B whose corrected reliability was .75. A second-item analysis led to Form C, whose reliability was lower than expected, and the next revision contained thirty new items. The sixty-six-item Form D yielded a corrected reliability of .91. In order to shorten the
scale, sixty-six items were eliminated on the basis of another item analysis. The final scale, which was utilized in this study, Form E, produced reliabilities ranging from .68 to .93.

In a test of validity a group of graduate students in psychology were asked to select from among their friends and acquaintances those individuals whom they considered to have relatively closed and relatively open belief systems (7). The resultant data revealed a mean of 157.2 for the highly dogmatic group and of 101.1 for the low dogmatic group. This difference is significant at the .01 level.

The same sample was administered the California F Scale and the Ethnocentrism Scale, both of which measure right-of-center intolerance. It was expected that the highly dogmatic group would score higher than the low dogmatic group on these scales also. The difference was found significant at the .01 level.

Three other studies were conducted to validate further the Dogmatism Scale, Form E and to test its ability to measure general dogmatism rather than right-wing or conservative authoritarianism (7). A midwest study and a New York study compared religious groups, and an English study made comparisons among political groups. All subjects in each of the studies were administered the Dogmatism Scale, Form E, Opinionation Scale, California F Scale, and Ethnocentrism Scale.
These studies investigated the authoritative beliefs of Catholics, Protestants, nonbelievers, and five political groups, ranging from conservatives to Communists. As measured by the California F Scale and Ethnocentrism Scale, Catholics and conservatives were found to be the most right-authoritarian and nonbelievers and Communists the least. However, Catholics and conservatives, nonbelievers and Communists, all scored about the same on the Dogmatism Scale, indicating its measure of "general" authoritarianism.

The above studies indicate that authoritarian left-of-center groups and authoritarian right-of-center groups score relatively high on the Dogmatism Scale and Opinionation Scale. These results support the theoretical expectation that the Dogmatism Scale, Form E is a measure of general authoritarianism.
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CHAPTER IV

PRESENTATION OF THE DATA

The purposes of this study are as follows:

1. To determine whether teachers, after participating in one of three approaches to in-service programs, experience changes in positive humanistic attitudes toward students;

2. To determine whether teachers, after participating in an in-service program (Method A) designed to humanize teachers' attitudes, experience more stable attitudinal changes than those participating in a regular district in-service program (Method C) or in a modified regular district in-service program (Method B).

To test the hypotheses of this study, a pretest, posttest, retention test design was used. The .05 level of significance was selected as the basis for accepting or rejecting the hypotheses.

The data obtained from this study are organized into two sections for presentation. The first section, Analysis of Data, is designed to report the t values, mean values, standard deviations, and adjusted mean values of the pretest, posttest, and retention test on the Attitude Inventory. The F Ratio and level of significance are also reported. The
second section, Discussion of Data, is devoted to a discussion and analysis of the results of the data.

Analysis of Data

In Hypothesis One, it was predicted that the teachers who participated in the Teacher Effectiveness Training (Method A) in-service program would experience a significant, positive change in their mean attitude score on the Attitude Inventory at the conclusion of the program. The pretest mean, posttest mean, standard deviation, and t value used to test this hypothesis are presented in Table I.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean, Pretest</th>
<th>S D</th>
<th>Mean, Posttest</th>
<th>S D</th>
<th>t</th>
<th>P</th>
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<tr>
<td>A</td>
<td>759.23</td>
<td>71.16</td>
<td>757.27</td>
<td>75.04</td>
<td>-0.22</td>
<td>0.82</td>
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Inspection of Table I indicates that there was a slight decrease in the mean score on the posttest. The t value did not reach the .05 level of significance; therefore, the hypothesis was rejected.

In Hypothesis Two, it was predicted that the teachers who participated in the modified district (Method B) in-service program would not experience a significant, positive change in their mean attitude score on the Attitude Inventory
at the conclusion of the in-service program. The pretest mean, posttest mean, standard deviation, and t value used to test this hypothesis are presented in Table II.

TABLE II

PRETEST MEAN, POSTTEST MEAN, STANDARD DEVIATIONS AND t VALUE FOR METHOD B TEACHERS

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean, Pretest</th>
<th>S D</th>
<th>Mean, Posttest</th>
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<tr>
<td>B</td>
<td>764.52</td>
<td>51.07</td>
<td>760.86</td>
<td>56.50</td>
<td>-0.30</td>
<td>0.77</td>
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Inspection of Table II indicates that there was a small decrease in the mean score on the posttest. The t value did not reach the .05 level of significance; therefore, the hypothesis was retained.

In Hypothesis Three, it was predicted that the teachers who participated in the regular district (Method C) in-service program would not experience a significant, positive change in their mean attitude score on the Attitude Inventory at the conclusion of the in-service program. The pretest mean, posttest mean, standard deviation, and t value used to test this hypothesis are presented in Table III.

Inspection of Table III indicates that there was a decrease in the mean score on the posttest. The t value did not reach the .05 level of significance; therefore, the hypothesis was retained.
In Hypothesis Four, it was predicted that the teachers who participated in the Method A in-service program would have a significantly higher adjusted posttest attitude score on the Attitude Inventory than that of the teachers who participated in the Method B in-service program. The pretest means, posttest means, standard deviations, and adjusted mean used to test this hypothesis are presented in Table IV. The $F$ Ratio and level of significance are also reported.

**TABLE IV**

**PRETEST MEANS, POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED MEANS ON THE ATTITUDE INVENTORY**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>S D</th>
<th>Posttest Mean</th>
<th>S D</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>30</td>
<td>759.23</td>
<td>71.16</td>
<td>757.26</td>
<td>75.04</td>
<td>757.48</td>
</tr>
<tr>
<td>B</td>
<td>21</td>
<td>764.52</td>
<td>51.07</td>
<td>760.86</td>
<td>56.50</td>
<td>757.13</td>
</tr>
<tr>
<td>C</td>
<td>18</td>
<td>754.17</td>
<td>61.42</td>
<td>741.33</td>
<td>65.14</td>
<td>745.32</td>
</tr>
</tbody>
</table>

$F = 0.41$, $P = 0.67$
Inspection of Table IV indicates that, although the pretest mean score of the Method B teachers was higher than that of the Method A teachers, their adjusted mean scores were similar. The $F$ Ratio did not reach the .05 level of significance; therefore, the hypothesis was rejected.

In Hypothesis Five, it was predicted that the teachers who participated in the Method A in-service program would have a significantly higher adjusted posttest score on the Attitude Inventory than that of the teachers who participated in the Method C in-service program. The pretest means, posttest means, standard deviations, and adjusted means used to test this hypothesis are presented in Table IV.

Inspection of Table IV indicates that both the pretest mean score and the adjusted mean score of the Method B teachers were higher than those of the Method C teachers. However, the $F$ Ratio did not reach the .05 level of significance; therefore, the hypothesis was rejected.

In Hypothesis Six, it was predicted that there would be no significant difference between the adjusted posttest mean score of the teachers who participated in the Method B in-service program and that of the teachers who participated in the Method C in-service program. The pretest means, posttest means, standard deviations, and adjusted means used to test this hypothesis are presented in Table IV.

Inspection of Table IV indicates that both the pretest mean score and the adjusted mean score of the Method B
teachers were higher than those of the Method C teachers. However, the $F$ Ratio did not reach the .05 level of significance; therefore, the hypothesis was retained.

In Hypothesis Seven, it was predicted that any positive attitudinal gains made by the teachers who participated in the Method A in-service program would remain stable for three months after the completion of the in-service program.

The posttest means, retention test means, standard deviations, and adjusted means used to test this hypothesis are presented in Table V. The $F$ Ratio and level of significance are also reported.

### TABLE V

**POSTTEST MEANS, RETENTION TEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED MEANS ON THE ATTITUDE INVENTORY**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Posttest Mean</th>
<th>S D</th>
<th>Retention Test Mean</th>
<th>S D</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>30</td>
<td>757.27</td>
<td>75.04</td>
<td>755.47</td>
<td>79.90</td>
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<tr>
<td>B</td>
<td>21</td>
<td>760.86</td>
<td>56.50</td>
<td>768.33</td>
<td>92.80</td>
<td>764.14</td>
</tr>
<tr>
<td>C</td>
<td>18</td>
<td>741.33</td>
<td>65.14</td>
<td>727.50</td>
<td>115.49</td>
<td>735.61</td>
</tr>
</tbody>
</table>

$F = 0.55, P = 0.58$

Inspection of Table V indicates that the posttest mean of the Method A teachers was higher than their retention test mean. The $F$ Ratio did not reach the .05 level of significance; therefore, the hypothesis was retained.
In Hypothesis Eight, it was predicted that any differences in mean attitude scores of teachers participating in the three different in-service programs, would still exist three months later. The posttest means, retention test means, standard deviations, and adjusted means used to test this hypothesis are presented in Table V.

Inspection of Table V indicates that the adjusted mean scores of the Method A and Method C teachers were lower than their posttest scores. The adjusted mean score of the Method B teachers was higher than their posttest score. However, the F Ratio did not reach the .05 level of significance; therefore, the hypothesis was retained.

Of interest in the study was the relationship between the mean scores on the posttest Attitude Inventory, retention test Attitude Inventory, posttest Dogmatism Scale, and retention test Dogmatism Scale. Inspection of Table VI indicates the lack of significant relationships between the posttest and retention mean scores of the Attitude Inventory and the Dogmatism Scale.

Discussion of Data

Of the eight hypotheses tested, five were retained and three were rejected. Those rejected involved the predicted superiority of the Method A in-service program in changing attitudes of elementary school teachers. This, in fact, did not occur.
### TABLE VI

**CORRELATION COEFFICIENTS FOR POSTTEST AND RETENTION TEST SCORES OF THE ATTITUDE INVENTORY AND DOGMATISM SCALE**

<table>
<thead>
<tr>
<th></th>
<th>Posttest A I</th>
<th>Retention A I</th>
<th>Posttest Dogmatism</th>
<th>Retention Dogmatism</th>
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</thead>
<tbody>
<tr>
<td>Posttest A I</td>
<td>1.00</td>
<td>0.48</td>
<td>0.18</td>
<td>0.12</td>
</tr>
<tr>
<td>Retention A I</td>
<td>0.48</td>
<td>1.00</td>
<td>0.07</td>
<td>-0.10</td>
</tr>
<tr>
<td>Posttest Dogmatism</td>
<td>0.18</td>
<td>0.07</td>
<td>1.00</td>
<td>0.65</td>
</tr>
<tr>
<td>Retention Dogmatism</td>
<td>0.12</td>
<td>-0.10</td>
<td>0.65</td>
<td>1.00</td>
</tr>
</tbody>
</table>

The mean scores of all groups experienced a decline on the posttest. However, the mean scores of the two groups who were involved in in-service programs that included experiences designed to humanize attitudes declined the least. The Method A teachers' mean score declined 1.96, the Method B teachers' mean score declined 3.66, and the Method C teachers' mean score declined 12.84. Although none of the differences approached significance, Method C came the closest with $P = 0.28$.

When the adjusted posttest mean scores of the three groups were compared, there was no significant difference. The adjusted posttest mean scores were lower for all groups than their pretest mean scores. The Method A teachers'
adjusted posttest mean score was only 0.35 higher than the adjusted posttest mean score of the Method B teachers. However, the adjusted posttest mean score of the Method C teachers was 12.16 lower than the adjusted posttest mean score of the Method A teachers.

It is interesting to note that, despite efforts to improve teachers' attitudes by the Method A and Method B in-service programs, humanistic attitudes, as measured by the Attitude Inventory, actually declined, although not significantly. When considered in relation to the even greater decline in the posttest mean score of the Method C teachers, a decline in humanistic attitudes toward children as the school year progresses may be a natural phenomenon. Teachers may be more patient, considerate, warm, and accepting at the beginning of the school year than they are as the year progresses. If this were the case, it might be argued that the Method A and Method B in-service programs, when compared to Method C, better retarded this "natural" decline in humanistic attitudes.

On the retention test, the Method B teachers had an adjusted retention mean score slightly higher than that of the Method A teachers and considerably higher than the adjusted retention mean score of the Method C teachers. These differences were not found to be significant; therefore, attitudes, as measured by the Attitude Inventory, had not
changed during the three months following the in-service programs.

The lack of any meaningful correlation between the mean scores on the Attitude Inventory and the Dogmatism Scale can best be explained by a close look at the instruments. The Attitude Inventory was designed to measure a teacher's attitude toward children. Teachers who are warm and empathetic toward children and who genuinely like children would be expected to score high on the Attitude Inventory. The Dogmatism Scale was designed to measure "general" dogmatism. General dogmatism is defined as beliefs categorized as either "right authoritarianism" or "left authoritarianism." Persons in either of these categories would not be open to change in their belief system. Teachers with closed or rigid belief systems would be expected to score high on the Dogmatism Scale. The lack of a significant correlation between scores on the Attitude Inventory and the Dogmatism Scale indicates that a teacher may have humanistic attitudes toward children, yet have a closed belief system.

Summary

The purpose of this chapter was to present, analyze, and discuss the data obtained for this study. The hypotheses were presented, and the data were analyzed to determine acceptance or rejection of the hypotheses. An analysis of the data indicated that Hypotheses Two, Three, Six, Seven,
and Eight were retained. Hypotheses One, Four, and Five were rejected.
Summary

This study investigated the effectiveness of three in-service training models in humanizing teachers' attitudes toward children. Each model was analyzed separately and then compared with each of the others. The purposes of this study were to determine whether teachers, after participating in one of three in-service models, would experience positive changes in attitudes toward children and would maintain these changes for at least three months.

The hypotheses were stated as follows.

1. There will be a significant, positive change in the mean attitude score of teachers participating in the Method A in-service program at the conclusion of the program.

2. There will not be a significant, positive change in the mean attitude score of teachers participating in the Method B in-service program at the conclusion of the program.

3. There will not be a significant, positive change in the mean attitude score of teachers participating in the Method C in-service program at the conclusion of the program.
4. The adjusted mean posttest attitude score of Method A in-service teachers will be significantly higher than that of teachers involved in the Method B in-service program.

5. The adjusted mean posttest score of Method A in-service teachers will be significantly higher than that of teachers in the Method C in-service program.

6. There will be no significant difference between the adjusted mean posttest score of teachers in the Method B in-service program and that of teachers in the Method C in-service program.

7. Any gains made by Method A teachers in the direction of positive attitudinal changes will remain stable for three months after the final in-service program.

8. Any differences in mean attitude scores of teachers participating in the three in-service programs, measured at the conclusion of the program, will still exist in the same proportion three months later.

The population in this study comprised selected elementary teachers in a middle-class suburban school district in the north Texas area. Thirty teachers constituted the Method A subjects, twenty-one the Method B, and eighteen the Method C. The Method A teachers participated in the Teacher Effectiveness Training workshop, a commercially prepared program designed to humanize teachers' attitudes. The T. E. T. workshop was a twenty-four-hour program spanning a
three-and-one-half-month period. The Method B teachers participated in a district- and building-planned in-service program that included the viewing and discussion of four films designed to create humanistic attitudes. The Method B in-service program was twenty-four hours in length and was conducted over a three-and-one-half-month period. The Method C teachers participated in a district- and building-planned in-service program which was not aimed at humanizing attitudes. The Method C in-service program was also twenty-four hours in length and was conducted over the same three-and-one-half-month period as Method A and Method B.

The instrument used to measure attitudes was the Attitude Inventory, which utilized the semantic-differential technique. The Dogmatism Scale, Form E was also administered as a posttest and retention test.

After the data were gathered and tabulated, the results were statistically analyzed, using the related t test and the analysis of covariance techniques. A significance level of .05 was required for acceptance of the hypotheses.

Hypothesis One was rejected. The Method A teachers did not experience a significant, positive change in the mean attitude score, as measured by the Attitude Inventory at the conclusion of the in-service program. In fact, the posttest mean score was slightly lower than the pretest mean score.

Hypothesis Two was retained. The Method B teachers did not experience a significant, positive change in the mean
attitude score, as measured by the Attitude Inventory at the conclusion of the in-service program. The posttest mean score of the Method B teachers was slightly lower than their pretest mean score.

Hypothesis Three was retained. The Method C teachers did not experience a significant, positive change in the mean attitude score, as measured by the Attitude Inventory at the conclusion of the in-service program. The posttest mean score of the Method C teachers was lower than their pretest mean score.

Hypothesis Four was rejected. The adjusted mean post-test attitude score of the Method A teachers was not significantly higher than the adjusted posttest score of the Method B teachers. The Method A teachers did, however, have a higher adjusted mean posttest score than did the Method B teachers.

Hypothesis Five was rejected. The adjusted mean post-test attitude score of the Method A teachers was not significantly higher than the adjusted posttest score of the Method C teachers. However, the Method A teachers did have a higher adjusted mean posttest score than did the Method C teachers.

Hypothesis Six was retained. There was no significant difference between the adjusted mean posttest score of the Method B teachers and that of the Method C teachers. The
Method B teachers did have a higher adjusted mean posttest score than did the Method C teachers.

Hypothesis Seven was retained. Although there were no positive attitudinal gains made by the Method A teachers, their mean score did remain stable for three months. The mean score of the Method A teachers did actually decline, although not significantly.

Hypothesis Eight was retained. The differences in mean scores between all groups, measured at the conclusion of the in-service program, still existed three months later. There were no significant differences among the three groups at the conclusion of the in-service and three months later. The Method B teachers did experience a slight increase in their mean score, but the Method A and Method C teachers' mean scores continued to decline. None of the changes in mean scores were significant.

Findings

This study yielded the following findings:

1. The Teacher Effectiveness Training workshop, as conducted in this study, is not effective in changing teacher attitudes.

2. The modified district in-service program, as conducted in this study, is not effective in changing teacher attitudes.
3. None of the groups of teachers experienced significant changes in attitudes during this study.

4. Teachers' positive attitudes toward children declined with each successive testing.

Conclusions

The findings of this investigation support the following conclusions:

1. In-service programs spanning a relatively short period of time and lacking continuity tend not to be effective in changing teacher attitudes. The programs evaluated in this study were conducted in four sessions over a three and one-half month span. The first session was separated by eighteen days from the second, the second session was separated by nearly one month from the third, and the third session was separated by two months from the final session. No reinforcement activities were conducted during the intervening time periods.

2. Teacher attitudes may become less humanistic as the school year progresses. All three groups of teachers experienced declines in humanistic attitudes with each successive testing. Despite the efforts of two of the in-service programs to change teacher attitudes positively, these teachers experienced a decline in positive attitudes, although not at a statistically significant level. The group of teachers who participated in the program that did not
attempt to change attitudes experienced the greatest decline in positive attitude.

3. Teacher attitudes are relatively stable and resistant to change.

Recommendations

Based upon the results of this study, it is recommended that

1. Longitudinal studies be conducted, utilizing Teacher Effectiveness Training and other workshops designed to humanize teachers' attitudes, in order to determine the effects such devices have on attitudes;

2. A study be conducted over a much shorter period of time, utilizing the Teacher Effectiveness Training workshop, to determine what effect a concentrated approach would have on teachers' attitudes. Shorter periods of time between sessions may provide continuity and carry-over;

3. A year-long study be conducted which examines teacher attitudes at different intervals during the school year;

4. Administrators should plan and implement long-range, continuous, and cohesive in-service programs when attempting to change teacher attitudes and

5. Since teacher attitudes are difficult to change and are vitally important in student learning, administrators need to develop careful screening techniques to
eliminate those teachers whose attitudes are not conducive to student learning.
APPENDICES
APPENDIX A

ATTITUDE INVENTORY

Instructions

Notice: The identity of persons responding to this questionnaire will not be revealed to anyone. Completion time is 20 minutes.

Study of the Concepts Involved in Educational Processes

We would like to know what certain concepts involved in the educational process mean to you. We are using a novel way to give people an opportunity to express the feelings they have about pertinent things. It consists of a number of words naming concepts involved in the educational process and a number of evaluation scales.

On each scale you can indicate the direction and intensity of your association for a given concept by placing an X in an appropriate space.

Here is an example:

PRE-SCHOOL PLANNING ACTIVITIES

1. Good:___:___:___:___:___:___:___:Bad

If your association is that pre-school planning activities in your school are extremely good, you would mark as follows:

1. Good: X:___:___:___:___:___:___:Bad

If you feel they are somewhat bad, you would mark:

1. Good:___:___:___:___:___:X:___:Bad

If you feel that they are neither good nor bad (or both good and bad), you would mark:

1. Good:___:___:___:X:___:___:Bad

Please give your first reaction; work quickly. It shouldn't take more than two minutes to finish a page.
I. STUDENT PARTICIPATION IN CLASSROOM RULE SETTING

1. Good:___:____:____:____:____:____:____:____:Bad
2. Unpleasant:____:___:____:____:____:____:____:____:Pleasant
3. Nice:____:___:____:____:____:____:____:____:Awful
4. Unfair:____:___:____:____:____:____:____:____:Fair
5. Worthless:____:____:____:____:____:____:____:____:Valuable
6. Sweet:____:___:____:____:____:____:____:____:Bitter
7. Sad:____:____:____:____:____:____:____:____:Happy
8. Kind:____:____:____:____:____:____:____:____:Cruel

II. DEMOCRATIC CLASSROOMS

1. Pleasant:____:____:____:____:____:____:____:____:Unpleasant
2. Awful:____:____:____:____:____:____:____:____:Nice
3. Fair:____:____:____:____:____:____:____:____:Unfair
4. Bitter:____:____:____:____:____:____:____:____:Sweet
5. Happy:____:____:____:____:____:____:____:____:Sad
6. Valuable:____:____:____:____:____:____:____:____:Worthless
7. Cruel:____:____:____:____:____:____:____:____:Kind
8. Bad:____:____:____:____:____:____:____:____:Good
III. INSTRUCTIONAL EMPHASIS UPON PUPIL SELF-CONCEPT

1. Nice:___:___:___:___:___:___:___:Awful
2. Unfair:___:___:___:___:___:___:___:Fair
3. Worthless:___:___:___:___:___:___:___:Valuable
4. Sweet:___:___:___:___:___:___:___:Bitter
5. Sad:___:___:___:___:___:___:___:Happy
6. Kind:___:___:___:___:___:___:___:Cruel
7. Good:___:___:___:___:___:___:___:Bad
8. Unpleasant:___:___:___:___:___:___:___:Pleasant

IV. YOUR PRESENT CLASS

1. Unfair:___:___:___:___:___:___:___:Fair
2. Worthless:___:___:___:___:___:___:___:Valuable
3. Bitter:___:___:___:___:___:___:___:Sweet
4. Sad:___:___:___:___:___:___:___:Happy
5. Cruel:___:___:___:___:___:___:___:Kind
6. Bad:___:___:___:___:___:___:___:Good
7. Unpleasant:___:___:___:___:___:___:___:Pleasant
8. Awful:___:___:___:___:___:___:___:Nice
V. OPENNESS WITH STUDENTS

1. Good:___:___:___:___:___:___:___:___:Bad
2. Nice:___:___:___:___:___:___:___:___:Awful
3. Valuable:___:___:___:___:___:___:___:___:Worthless
4. Happy:___:___:___:___:___:___:___:___:Sad
5. Unpleasant:___:___:___:___:___:___:___:___:Pleasant
6. Unfair:___:___:___:___:___:___:___:___:Fair
7. Bitter:___:___:___:___:___:___:___:___:Sweet
8. Cruel:___:___:___:___:___:___:___:___:Kind

VI. STUDENT CIVIL RIGHTS

1. Bad:___:___:___:___:___:___:___:___:Good
2. Unpleasant:___:___:___:___:___:___:___:___:Pleasant
3. Awful:___:___:___:___:___:___:___:___:Nice
4. Fair:___:___:___:___:___:___:___:___:Unfair
5. Worthless:___:___:___:___:___:___:___:___:Valuable
6. Bitter:___:___:___:___:___:___:___:___:Sweet
7. Sad:___:___:___:___:___:___:___:___:Happy
8. Kind:___:___:___:___:___:___:___:___:Cruel
VII. STUDENT COUNSELING

1. Good: __: __: __: __: __: __: __: __: Bad
2. Awful: __: __: __: __: __: __: __: Nice
3. Worthless: __: __: __: __: __: __: __: Valuable
4. Happy: __: __: __: __: __: __: __: Sad
5. Pleasant: __: __: __: __: __: __: __: Unpleasant
6. Unfair: __: __: __: __: __: __: __: Fair
7. Bitter: __: __: __: __: __: __: __: Sweet
8. Cruel: __: __: __: __: __: __: __: Kind

VIII. CORPORAL PUNISHMENT

1. Happy: __: __: __: __: __: __: __: Sad
2. Cruel: __: __: __: __: __: __: __: Kind
3. Awful: __: __: __: __: __: __: __: Nice
4. Fair: __: __: __: __: __: __: __: Unfair
5. Valuable: __: __: __: __: __: __: __: Worthless
6. Bad: __: __: __: __: __: __: __: Good
7. Pleasant: __: __: __: __: __: __: __: Unpleasant
8. Bitter: __: __: __: __: __: __: __: Sweet
IX. PARENT-TEACHER CONFERENCES

1. Good:___:___:___:___:___:___:___:Bad
2. Sad:___:___:___:___:___:___:___:Happy
3. Nice:___:___:___:___:___:___:___:Awful
4. Bitter:___:___:___:___:___:___:___:Sweet
5. Fair:___:___:___:___:___:___:___:Unfair
6. Worthless:___:___:___:___:___:___:___:Valuable
7. Pleasant:___:___:___:___:___:___:___:Unpleasant
8. Cruel:___:___:___:___:___:___:___:Kind

X. YOUR FELLOW FACULTY MEMBERS

1. Fair:___:___:___:___:___:___:___:Unfair
2. Worthless:___:___:___:___:___:___:___:Valuable
3. Nice:___:___:___:___:___:___:___:Awful
4. Bitter:___:___:___:___:___:___:___:Sweet
5. Happy:___:___:___:___:___:___:___:Sad
6. Pleasant:___:___:___:___:___:___:___:Unpleasant
7. Bad:___:___:___:___:___:___:___:Good
8. Cruel:___:___:___:___:___:___:___:Kind
XI. ELEMENTARY STUDENTS
1. Happy:____:____:____:____:____:____:Sad
2. Sweet:____:____:____:____:____:____:Bitter
3. Worthless:____:____:____:____:____:____:Valuable
4. Unfair:____:____:____:____:____:____:Fair
5. Nice:____:____:____:____:____:____:Awful
6. Unpleasant:____:____:____:____:____:____:Pleasant
7. Good:____:____:____:____:____:____:Bad
8. Kind:____:____:____:____:____:____:Cruel

XII. EDUCATIONAL INNOVATION
1. Bad:____:____:____:____:____:____:Good
2. Bitter:____:____:____:____:____:____:Sweet
3. Unpleasant:____:____:____:____:____:____:Pleasant
4. Nice:____:____:____:____:____:____:Awful
5. Fair:____:____:____:____:____:____:Unfair
6. Worthless:____:____:____:____:____:____:Valuable
7. Happy:____:____:____:____:____:____:Sad
8. Kind:____:____:____:____:____:____:Cruel
XIII. CLASSROOM CONTROL

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<td></td>
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<tr>
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<td>Nice: Awful</td>
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<td>Worthless: Valuable</td>
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<td>Unfair: Fair</td>
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XIV. FAMILIARITY WITH STUDENTS

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<tbody>
<tr>
<td></td>
<td>Good: Bad</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Unpleasant: Pleasant</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Nice: Awful</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unfair: Fair</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Worthless: Valuable</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Sweet: Bitter</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sad: Happy</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Kind: Cruel</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
XV. STUDENT RIGHTS

1. Bad: ___:___:___:___:___:____:___:Good
2. Unpleasant: ___:___:___:___:___:___:___:Pleasant
3. Awful: ___:___:___:___:___:___:___:Nice
4. Fair: ___:___:___:___:___:___:___:Unfair
5. Worthless: ___:___:___:___:___:___:___:Valuable
6. Bitter: ___:___:___:___:___:___:___:Sweet
7. Sad: ___:___:___:___:___:___:___:Happy
8. Kind: ___:___:___:___:___:___:___:Cruel

XVI. HUMANE CLASSROOMS

1. Good: ___:___:___:___:___:___:___:Bad
2. Awful: ___:___:___:___:___:___:___:Nice
3. Worthless: ___:___:___:___:___:___:___:Valuable
4. Happy: ___:___:___:___:___:___:___:Sad
5. Pleasant: ___:___:___:___:___:___:___:Unpleasant
6. Unfair: ___:___:___:___:___:___:___:Fair
7. Bitter: ___:___:___:___:___:___:___:Sweet
8. Cruel: ___:___:___:___:___:___:___:Kind
XVII. RESPECT FOR STUDENTS

1. Nice: Awful
2. Unfair: Fair
3. Worthless: Valuable
4. Sweet: Bitter
5. Sad: Happy
6. Kind: Cruel
7. Good: Bad
8. Unpleasant: Pleasant

Score
APPENDIX B

TABLE VII

ANALYSIS OF COVARIANCE OF MEAN DIFFERENCES IN
PRETEST AND POSTTEST SCORES ON THE
ATTITUDE INVENTORY

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>67</td>
<td>155332.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within</td>
<td>65</td>
<td>153414.63</td>
<td>2360.22</td>
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<tr>
<td>Difference</td>
<td>2</td>
<td>1918.06</td>
<td>959.03</td>
<td>0.41</td>
<td>0.67</td>
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</tbody>
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APPENDIX C

TABLE VIII

ANALYSIS OF COVARIANCE OF MEAN DIFFERENCES IN POSTTEST AND RETENTION SCORES ON THE ATTITUDE INVENTORY

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>67</td>
<td>473300.19</td>
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</tr>
<tr>
<td>Within</td>
<td>65</td>
<td>465400.00</td>
<td>7160.00</td>
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<td>Difference</td>
<td>2</td>
<td>7900.19</td>
<td>3950.09</td>
<td>0.55</td>
<td>0.58</td>
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