

EFFECTS OF PARTICIPATION IN THE TABA IN-SERVICE EDUCATION
PROGRAM ON TEACHERS' SELF CONCEPT, ATTITUDE, AND
SELECTED PERSONALITY CHARACTERISTICS

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The problem with which this study was concerned was that of evaluating the effects of participation in the Hilda Taba In-Service Education Program on teachers' self concept, attitude, and selected personality characteristics.

The purpose of the study was to determine the extent to which teacher's personal characteristics, as measured by the Tennessee Self Concept Scale, the Minnesota Teacher Attitude Inventory, the Guilford-Zimmerman Temperament Survey, and the "Rokeach Dogmatism Scale," are affected by participation in the Taba In-Service Education Program.

The overall design selected for the research was the non-equivalent control group design, an experimental design that involved an experimental and a control group, both of which were given a pretest and a posttest. The analysis of covariance technique was used to achieve statistical control over the variables. The F ratios obtained through this technique were tested at the 5 percent level of significance. Subjects of this study were eighty-seven in-service teachers

in a large suburban school district who volunteered to participate in the Taba Program.

The introductory chapter of this study includes a statement of the problem, the purpose of the study, definition of terms, basic assumptions, limitations, and background and significance of this work, as well as the four null hypotheses tested by this research.

Procedure for this study involved a review of related literature. In Chapter II these writings are organized and reviewed by the topic heading (1) Teacher Self Concept and Teaching Effectiveness, (2) Teacher Attitude and Teaching Effectiveness, and (3) Teacher Personality and Teaching Effectiveness.

Methods and procedures used to accomplish the purpose of this study are found in Chapter III. Included are descriptions of the selection of subjects, instruments used in the study, and the data collection and analysis procedures.

Presentation and analysis of the data are recorded in Chapter IV. Statistical data pertaining to each of the hypotheses of this study are shown in appropriate table form. Analysis of data revealed that for the variables of teacher self concept, attitude, and personal relations there was a significant difference at the .01 level between the mean scores of teachers who had participated in the Taba Program and the mean scores of teachers who had not participated in

the program. There was no significant difference at the .05 level in the mean scores of these groups for the variables of teacher objectivity, thoughtfulness, and dogmatism.

A summary review of this study, conclusions drawn from the findings, and recommendations generated by this research constitute Chapter V. Following treatment and analysis of the data collected in this study, it was concluded that participation in the Taba In-Service Education Program appears to produce positive change in certain personal qualities related to teaching effectiveness (self concept, attitude, and personal relations); therefore, the Taba Program may be considered an effective in-service education program.

Several recommendations for further needed research concerning the effectiveness of the Hilda Taba In-Service Education Program are suggested. A final recommendation is made that the Hilda Taba In-Service Education Program be considered an effective agent for bringing about positive change in certain personal characteristics which are related to teaching effectiveness.

EFFECTS OF PARTICIPATION IN THE TABA IN-SERVICE EDUCATION
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SELECTED PERSONALITY CHARACTERISTICS

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CHAPTER I

INTRODUCTION

In-service education programs have evolved in order to keep teachers aware of changes going on within their profession and in order to up-grade teacher competency. Present-day demands for quality educational practices come from within the teaching profession as well as from interested outsiders and serve to magnify the need for effective in-service education programs.

There is agreement among educators that continuous professional growth of faculty and staff members is essential in order for desirable instructional practices to be maintained in the public schools. In the book The Public Administration of American Schools, Miller and Spalding (7) interpret in-service education as aid given by the administrative and supervisory staff to help teachers do better those things that the school district expects them to do in line with their assignment. Spears (9) argues that in-service programs, curriculum planning, and supervision of teaching are three overlapping features necessary for the improvement of instruction in the school. Lawson (6) indicates that providing opportunities for continuous teacher growth through in-service education programs is now generally

accepted to be the continuing responsibility of the school administrator.

In 1962 Castetter (1) predicted that the quest for more effective in-service education programs to provide opportunities for personnel to become and to remain professionally competent would continue at an increasingly rapid rate and in diverse directions. Current concern for quality in-service programs is evidence that such predictions were well founded.

In emphasizing the need for genuinely effective in-service education programs, Stoops and Rafferty have summed up the general attitude of educators toward in-service programs by stating,

So important is an organized program of such training that its absence over an extended period will eventually negate every other advantage which excellent administration and enthusiastic public support can unite to offer a school system (10, p. 444).

Educators agree that when an in-service program is effective, participation in that program is followed by desired changes in teacher classroom behavior. Such changes are thought to be brought about primarily as the result of the teacher's personal attitudes and feelings having been genuinely affected by the in-service experience.

The Hilda Taba In-Service Education Program first appeared on the educational scene in 1967. Although the program is now being conducted in school systems throughout

the United States, little or no research has been done regarding the effects of participation in the program on personal qualities which are considered to be related to teaching effectiveness.

If an important outcome of an effective in-service program is that participation in the program produces within the teacher certain positive changes in personal factors related to quality teaching, then the measurement of these factors becomes a necessary step in estimating the effectiveness of the program.

Statement of the Problem

The problem of this study was to evaluate the effects of participation in the Hilda Taba In-Service Education Program on teachers' self concept, attitude, and selected personality characteristics.

Purpose of the Study

The purpose of the study was to determine the extent to which teachers' personal characteristics as measured by the Tennessee Self Concept Scale, the Minnesota Teacher Attitude Inventory, the Guilford-Zimmerman Temperament Survey, and the "Rokeach Dogmatism Scale" are affected by participation in the Hilda Taba In-Service Education Program.

Hypotheses

The following hypotheses were formulated in order to carry out the purpose of this study.

I. There will be no significant difference between the mean self-concept score of teachers who have participated in the Taba Program and the mean self-concept score of teachers who have not participated in the Taba Program, as measured by the Tennessee Self Concept Scale.

II. There will be no significant difference between the mean teacher-attitude score of teachers who have participated in the Taba Program and the mean teacher-attitude score of teachers who have not participated in the Taba Program, as measured by the Minnesota Teacher Attitude Inventory.

III. There will be no significant difference between the mean personality trait scores of teachers who have participated in the Taba Program and the mean personality trait scores of teachers who have not participated in the Taba Program, as measured by the following scales of the Guilford-Zimmerman Temperament Survey: (a) Objectivity Scale, (b) Thoughtfulness Scale, and (c) Personal Relations Scale.

IV. There will be no significant difference between the mean dogmatism score of teachers who have participated in the Taba Program and the mean dogmatism score of teachers who have not participated in the Taba Program, as measured by the "Rokeach Dogmatism Scale."

Definition of Terms

For the purposes of this study, the following terms are defined:

Hilda Taba In-Service Education Program--This is an in-service education program for elementary teachers developed by Hilda Taba and the Institute for Staff Development, Miami, Florida. The program consists of approximately fifty-six hours of instruction rotating between theory and practice of teaching and learning.

Self concept--Fitts (4), author of the Tennessee Self Concept Scale, defines self concept as one's overall level of self esteem. This term denotes the individual's attitudes, feelings, perceptions, and evaluations of himself.

Teacher attitude--Cook (2) and others, authors of the Minnesota Teacher Attitude Inventory, define teacher attitude as the teacher's self-expressed feelings toward children, toward teaching, toward the school, and toward subject matter. This attitude results from the interaction of many factors.

Objectivity--Guilford and Zimmerman (5), authors of the Guilford-Zimmerman Temperament Survey, explain objectivity as a personal trait having to do with egoism.

Thoughtfulness--Guilford and Zimmerman (5), authors of the Guilford-Zimmerman Temperament Survey, interpret thoughtfulness as a personal trait having to do with tact, reflection, and planning.

Personal relations--Guilford and Zimmerman (5), authors of the Guilford-Zimmerman Temperament Survey, define personal relations as a personal trait having to do with tolerance, understanding of other people and their weaknesses, and the ability to "get along" with others.

Dogmatism--Rokeach (8), author of the "Rokeach Dogmatism Scale," defines dogmatism as a closed way of thinking which could be associated with any ideology regardless of content, as an authoritarian outlook on life, an intolerance toward those with opposing beliefs, and as sufferance for, and an attraction to, those holding similar beliefs.

Basic Assumptions

It was assumed that those teachers selected to participate in the Hilda Taba In-Service Education Program had a positive attitude toward this in-service activity and endeavored to fulfill requirements of the program to the best of their ability.

It was assumed that the selection of teachers to participate in the Taba Program was made without bias by the panel of school administrators.

It was assumed that the Hilda Taba In-Service Education Program was presented to the participants in the program in its entirety and in accordance with the specific training procedures outlined in the leadership training course offered by the Institute for Staff Development, Miami, Florida.

It was assumed that the Tennessee Self Concept Scale is a valid and reliable instrument for measuring the overall level of the individual's self-esteem.

It was assumed that the Guilford-Zimmerman Temperament Survey is a valid and reliable instrument for measuring the temperament variables of Objectivity, Thoughtfulness, and Personal Relations, as defined by the authors of the instrument (5, p. 3).

It was assumed that the Minnesota Teacher Attitude Inventory is a valid and reliable instrument for measuring those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships and how well satisfied he will be with teaching as a vocation.

It was assumed that the "Rokeach Dogmatism Scale" is a valid and reliable instrument for measuring the individual's general authoritarianism, as defined by the author of the instrument (8, pp. 55-56).

It was assumed that teacher self concept, teacher attitude, and teacher personality are presage variables of teaching effectiveness.

It was further assumed that teachers in other school districts would not differ in significant ways from those included in this study.

Limitations of the Study

This study was limited to eighty-seven teachers in a large suburban school district in the North Texas area who volunteered to participate in the Hilda Taba In-Service Education Program.

The study was limited to the extent to which the subjects knew their own feelings about themselves, were aware of their attitudes, and were willing to reveal honestly this information.

The quality of instruction and the effectiveness of classroom supervision provided for the participants by the program instructor were accepted as possible limitations for this study.

The findings of this study may have been affected by the subjects' awareness of their participation in a research study.

Background and Significance of the Study

Hilda Taba made many notable contributions to the educational field in the areas of human relations, curriculum development, and teacher education. She was primarily interested in how children learn and in developing curricula that best serve children, teachers, and society in general.

Taba (11) expresses a deep faith in teachers and the role they perform in the development and implementation of effective curriculum. She maintains that teachers can

perform professionally only through committing time and effort to gaining insight into the theory and practice of teaching and learning.

Embodied in the Hilda Taba In-Service Education Program for elementary teachers is Taba's (3) philosophy that effective learning results in a change of behavior brought about by providing the individual with frequent opportunities to relate new knowledge with practical application. She saw continuous rotation between theory and practice as bringing deeper understanding of oneself and a greater degree of autonomy. Taba (11) concludes that only by placing theory and practice in proper relation to each other can content be fused with process.

Hilda Taba's death in July, 1967 left unfinished her most important work, the in-service education program for elementary teachers. The program was completed after Taba's death by members of the Institute for Staff Development, located at that time in Menlo Park, California.

During the 1967-68 school year, the Taba Program was conducted on a pilot basis in elementary schools in Lancaster, Texas, and Wenatchee, Washington. In 1968-69 twenty-one local school systems and regional service centers in eight states participated in the program. By the 1970-71 school year, the Taba Program was offered to teachers in approximately eighty-five school districts in twenty states. The Institute for Staff Development, now located in Miami,

Florida, provides the leadership training course for instructors and administers the program to all participating school districts.

The Hilda Taba In-Service Education Program, designed exclusively for the in-service teacher, has two major purposes: (1) to provide insights into how children learn to think, and (2) to provide opportunities for the teacher to examine and utilize particular teaching strategies which have been found to be successful in helping children to develop certain thinking skills. The program assumes that quality teaching requires both knowledge and skill, both of which are treated on a rotating basis in the instructional schedule of the program (3).

In terms of theory, the Hilda Taba In-Service Education Program provides instruction, readings, and demonstrations which help the teacher to develop a clearer rationale for the use of particular teaching strategies.

In terms of skill, the program provides opportunities for the teacher to develop techniques and strategies for leading discussions, to try these out with their own students, and to evaluate the results in terms of teacher performance and in terms of the thinking done by the students.

The content of the Taba Program consists of four cognitive tasks designated as (1) Concept Development, (2) Interpretation of Data, (3) Application of Generalizations, and (4) Interpretation of Feelings, Attitudes, and Values.

Teachers participating in the program receive a manual for each of these tasks. Appropriate patterns of teacher behavior, questioning techniques and sequences, model discussion plans for using the task at various grade levels and in different content areas, and suggested readings concerning the task rationale are included in each manual.

Teachers in the Taba Program receive approximately fifty-six hours of instruction from a person who has completed the leadership work with the Institute for Staff Development. In addition, the teachers are asked to plan and conduct discussions using the four tasks with their pupils in the classroom setting. These discussions are observed by the Taba Program instructor. Evaluation of the discussions is made jointly by the instructor and the participating teacher.

In summary, the Hilda Taba In-Service Education Program presents an inquiry approach to teaching and learning. Autonomy of the learner is the basis of each of the four cognitive tasks which constitute the Taba Program. The various strategies which teachers learn in the program are systematized and organized procedures for guiding pupil-teacher and pupil-pupil interaction based on research findings in the fields of education, psychology, and curriculum development. This in-service program emphasizes awareness of the learner's autonomy. This awareness combines with the art and techniques of good teaching to produce identifiable

strategies which are intended to help children learn important ideas and thinking skills.

The significance of this study is threefold. First, review of available literature concerning the Hilda Taba In-Service Education Program shows that no other research has been conducted at this time to determine the effects of participation in the program on essential personal characteristics thought to be related to teaching effectiveness. Second, this investigation is of educational value in that the findings of this study will be used to evaluate the in-service program opportunities now being offered to teachers in a large suburban school district in the North Texas area. And third, this study might possibly provide the impetus for the development of an assessment procedure for evaluation of this unique in-service approach to the improvement of instruction throughout the nation.

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CHAPTER II

REVIEW OF RELATED LITERATURE

In order to assess the effectiveness of the Taba In-Service Education Program, the present study was designed on the premise that teacher self concept, teacher attitude, and teacher personality are correlates of teaching effectiveness; therefore, an in-service study which positively affects these personal qualities of teachers can be considered an effective program.

The purpose of this chapter is to review studies which tend to indicate that teacher self concept, teacher attitude, and teacher personality are presage variables of teaching effectiveness. Where possible, the literature reviewed was limited to studies in which the research instruments used were the same as those selected for use in the present study.

Literature chosen for review is organized into the following topics: (1) Teacher Self Concept and Teaching Effectiveness, (2) Teacher Attitude and Teaching Effectiveness, and (3) Teacher Personality and Teaching Effectiveness.

Teacher Self Concept and Teaching Effectiveness

The concept of self was first introduced by William James (20) in 1890. Some years later in his construct of

ego, Freud (11) included the self concept. However, it was not until the late 1940's that American psychologists began to show interest in and understanding of the concept of self as a specific facet of personality organization. Since that time self concept has become a salient feature of many current theories of personality and social psychology. The nature of the self concept is thought to determine individual behavior. A survey of the literature indicates that to be complete, any analysis of human behavior must include the individual's self-evaluation and self-perception.

Carl Rogers was one of the first theorists to postulate that an individual's acceptance of himself is positively and significantly correlated to his acceptance of others when he stated, ". . . the person who accepts himself will, because of this self-acceptance, have better inter-personal relations with others" (37, p. 520). Rogers' awareness of the importance of the personality characteristics of those who are in a "helping profession" is shown when he suggests that

Since the aim of education, like the aim of therapy, is to produce creative and adaptive individuals, well informed about themselves and their world, it does not seem too great a leap to suggest that these attitudes are as basic to the facilitation of learning in education as they are to the facilitation of learning in psychotherapy (38; p. 8).

McIntyre's investigation (32) was an attempt to confirm the Rogerian hypothesis (37, p. 520) that individuals with high self-acceptance could be expected to enjoy greater

acceptance by others. Subjects answered a sociometric device which measured expressed attitudes of self-acceptance and of acceptance of others. Results tend to support the idea that attitudes toward self and others are positively correlated, but the results are ambiguous with respect to the hypothesis that better attitude toward self and others is positively related to better interpersonal relationships.

The results of Fey's early work (10) suggested that whereas neither self-acceptance nor acceptance-of-others scores form the basis of reliable predictions of other personality characteristics, perhaps their combination might. Regarding this study, Fey concludes,

Specifically, it was found that while expressed attitudes of self acceptance and of acceptance of others tend to vary together, the persons who are exceptions to this rule appear to reveal something of the way they defend themselves interpersonally. Individuals showing low self acceptance and high acceptance of others appeared to be intropunitive self disparagers; those with high self acceptance and low acceptance of others were especially resistant to the idea of personal psychotherapy and appeared to be extra-punitive projectors. If these epithets have any validity, they suggest "kinds" of adjustment which would encounter differential acceptance among peers (10, p. 274).

In a more recent study Fey (10) repeated the McIntyre (32) design, hypothesizing that acceptance of others is in part a function of the pattern of interrelationships between one's attitudes toward himself and those toward others. Findings indicate that individuals who are self-accepting tend to accept others, to feel accepted by others, but

actually to be neither more nor less accepted by others than those with lower self-acceptance scores. This could be construed to indicate that for individuals who are satisfied with themselves, peer group influence does not exert sufficient pressure to cause changes in behavior.

The results of an experimental study by Sheerer (40) strongly support Rogers' (37, p. 520) theory of personality and behavior. Subjects in this study were asked to respond to statements relating to attitude toward self and others. These statements were rated by judges, and the Pearson product-moment r 's between the attitudes were found to be in the plus .50's and plus .60's. Thus, the results clearly indicate a definite correlation between respect for others and acceptance and respect for self.

In their work with individual behavior, Snygg and Combs (41) accepted the personal frame of reference as a reliable predictor of personal behavior. Designating their views as "phenomenological psychology," they conclude that ". . . what a person does and how he behaves are determined by the concept he has of himself and his abilities" (41, p. 242).

Combs (5) suggests that professional success in teaching is directly related to possession of adequate personality. He characterizes the highly adequate personality by four general qualities: (1) positive attitude toward self, (2) accurate realistic perception of the world, (3) feeling of identification with other people, and (4) being well informed

(rich, varied, and available perceptual fields) (5, p. 20). Combs (5) submits that the effective teacher is primarily a unique personality and advocates a shift in thinking from a mechanistic to a personal view of teaching. His formal definition of an effective teacher is ". . . a unique human being who has learned to use himself effectively and efficiently to carry out his own and society's purpose in the education of others" (5, p. 9).

Symonds gives this description of the adequate self:

The successfully functioning ego leads to self-confidence, self-assurance, and self-reliance. These qualities are the result of having the ability to meet the demands in time and place defined by others. When one can function adequately so as to meet the approval of others, then he gains in self-esteem and self-confidence (44, p. 122).

In discussing self-perception as it is related to teaching effectiveness, Symonds (45) suggests that one of the primary difficulties which render teachers ineffective is a feeling of inadequacy, insecurity, and inferiority. Teacher-pupil relations are affected by such feelings of inadequacy, and the teacher is likely to evoke aggressive responses from the pupils as a result. In summary, Symonds states ". . . where there is lack of good ego strength, feelings of doubt or guilt may prevent the teacher from asserting himself and the teaching situation may deteriorate and become disorganized" (45, p. 81).

A review of the literature related to self concept reveals that psychotherapists and mental hygienists have repeatedly shown the importance of self concept in the mental health of subjects. Educators, seeing the implications for education, are moving toward acceptance of the teacher's self concept as an indicator of the type of classroom climate he will establish and the kind of teacher behavior that might be expected.

Jersild (21) was among the first to advocate a psychotherapeutic emphasis in the development of teachers. The assumption is that if children are to learn healthy, self-accepting attitudes in the school setting, a proper classroom emotional climate must prevail, and only the self-accepting teacher can create and maintain such an atmosphere.

An effort is made in the following pages to summarize significant research findings and relate them to the problem of this study, that of relating the specific facet of personality, self concept, to teaching effectiveness.

A study designed to measure self concept and to determine the relationship between self concept and successful teaching was conducted by Matfield (16). Positive relationship was found to exist between the teacher's self-evaluation and success in teaching, indicating that feelings of adequacy are indeed a determinant of teaching effectiveness.

Hoyt (19) reports that her study revealed nearly all of the teachers considered ineffective by their superiors found

self-evaluation to be threatening and gave strong evidence of personality maladjustment. This result would tend to indicate that these teachers need more and earlier counseling in their professional careers.

Working with teachers who had been designated as "ineffective" by supervisors, Hearn (17) conducted several case studies. He reports that poor emotional health was a factor in nearly all of the cases studied.

The problem for investigation in the Lantz (25) research was: Are individual self concepts and concepts of others related to classroom teaching performance in the establishment of classroom emotional climate? The major purpose of his study was to explore certain relationships between independent ratings of classroom emotional climate as observed in the classroom of women elementary teachers and self reports concerning their attitudes toward themselves and others. Self concept alone as a predictor was not found to be useful in predicting classroom emotional climate. However, the relationships between self concept and concepts of (a) most other elementary teachers, and (b) the ideal elementary teacher were useful in predicting classroom emotional climate. The investigator concludes, ". . . Possibly the chief contribution of this study is that it is an initial attempt to study the possibility of predicting relationships of self-reports to classroom emotional climate as observed by psychologically oriented observers" (25, p. 82).

In his work with evaluating teacher-pupil relationships, Leavitt (26) reports that teachers assessed to be "inferior" reportedly disliked children, were personally insecure, and showed feelings of inferiority and inadequacy. On the other hand, teachers assessed to be "superior" indicated a liking for children, were personally secure, and showed good personality organization.

Bills (2) reports a study in which acceptance-of-self and beliefs about how others accept themselves were measured and correlated with the variables of acceptability for leadership, rating of leadership success, and ratings of effective teaching. Findings of this study show a significant correlation between teaching effectiveness ratings and acceptance-of-self and beliefs about how others accept themselves.

Teacher Attitude and Teaching Effectiveness

Recent educational literature related to attitude can be categorized into four areas of investigation: (1) efforts to define the concept of attitude, (2) construction of adequate instruments for measurement of attitude, (3) attempts to measure attitude and/or to ascertain changes in attitude as a result of a variety of factors, and (4) studies attempting to establish correlation between teacher attitude and perceived teaching effectiveness. This review combines a brief overview of the literature from the first three

categories and a more extensive survey of investigations from the last category. The studies reviewed have been limited to those in which the attitude measurement instrument used was the Minnesota Teacher Attitude Inventory, the instrument selected for use in the present study.

The literature indicates that writers have tended to differ widely in their definitions of the concept of attitude. However, as Stern points out in the Handbook of Research on Teaching (43), the various writers attempting to define attitude do seem to find agreement on the following:

1. Attitudes are socially formed. They are based on cultural experience and training.
2. Attitudes are orientations toward others and toward objects. They incorporate the meaning of a physical event as an object or potential or actual activity.
3. Attitudes are selective. They provide a basis for discriminating between alternative courses of action and introduce consistency of response in social situations of an otherwise diverse nature.
4. Attitudes reflect a disposition to an activity, not a verbalization. They are organizations of incipient activities, of actions not necessarily completed, and represent, therefore, the underlying dispositional or motivational urge (43, p. 404).

Review of the literature concerned with instruments designed for measuring attitude indicates that investigators have used a variety of instruments. In a majority of these studies the instrument used appears to be basically a Thurstone (46) or a Likert (30) type of scale with some variation. In his work with attitude measurement, Green (14) suggests that there are four additional methods for measuring attitude: (1) the scalogram technique, (2) rating

methods based on verbal and nonverbal behavior, (3) Combs' unfolding technique, and (4) Lazarfield's latent structure theory. Green indicates that these techniques are not well known or understood, and as yet, not generally accepted as valid research instruments.

Educational literature is replete with investigations which have attempted to measure attitude and/or to assess attitude change as a result of a variety of stimuli. The outstanding feature of these attitude studies seems to be the endless variations in design and purpose of vast numbers of research projects. Olsen (35) concludes that a review of attitude and attitude change research related to the teaching-learning process indicates that ". . . research into the phenomena of attitude change apparently has not been fostered nor guided by any of the established theoretical models of attitude change" (35, p. 40).

There seems to be a growing body of evidence to substantiate the idea that the emotional climate of the classroom has direct effect upon both academic success and emotional health of pupils. Acknowledging the teacher as the prime determinant of classroom climate, educational investigators have endeavored to measure the teacher's attitude toward the teacher-pupil relationship and, in turn, to establish some positive correlation between attitude and teacher effectiveness.

A survey of the literature reveals that the most widely used instrument for measuring teacher attitude is the Minnesota Teacher Attitude Inventory. The authors of this inventory, which was developed at the University of Minnesota in 1951, state,

Investigations carried on by the authors over the past ten years indicate that the attitudes of teachers toward children and school work can be measured with high reliability, and that they are significantly correlated with the teacher-pupil relations found in the teachers' classrooms. The Minnesota Teacher Attitude Inventory has emerged from these researches. It is designed to measure those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships, and, indirectly, how well satisfied he will be with teaching as a vocation (7, p. 3).

Callis (4) reports a study using the Minnesota Teacher Attitude Inventory which he conducted with seventy-seven teacher subjects. The subjects' scores on the Minnesota Teacher Attitude Inventory were compared with effectiveness rating made by pupils, principals, and classroom observers. Results confirmed a significant relationship between Minnesota Teacher Attitude Inventory scores and teacher-pupil rapport as measured by the various ratings. Findings of this study led Callis to conclude that

. . . with the Minnesota Teacher Attitude Inventory we can predict the kinds of interpersonal relations which will exist in the classroom about as well as we can predict academic performance by use of intelligence tests (4, p. 85).

In a similarly designed study conducted by Hoyt and Cook (18) subjects were given the Minnesota Teacher Attitude Inventory at two different times over a period of six years. The correlation of .60 was interpreted as indicative of positive predictive validity of the Minnesota Teacher Attitude Inventory.

Examining responses to the Minnesota Teacher Attitude Inventory made by teachers from various curricular groupings, Callis (3) found those teachers from the early childhood group to have the highest scores, while those from the special field group (art, home economics, industrial arts, music, and physical education) scored lowest.

One hundred randomly selected teachers of grades four through six were given the Minnesota Teacher Attitude Inventory in an investigation conducted by Leeds (27) in South Carolina. Using various teacher effectiveness rating scales, the teachers were rated by principals, observers, and pupils. A multiple correlation of .63 was reported between the three criteria used and the Minnesota Teacher Attitude Inventory scores. Leeds feels that the findings of this study indicate that attitudes can be an index to personality reactions and that

. . . an attitude measuring instrument, such as the Minnesota Teacher Attitude Inventory, should prove useful in identifying those individuals who meet, or do not meet, one of the most insistent demands of successful teaching: the ability to maintain harmonious relationships with the pupils (18, p. 398).

Stein and Hardy (42) correlated scores on the Minnesota Teacher Attitude Inventory with four types of classroom measures: (1) personal ratings by pupils, (2) ratings by pupils of the teacher's lessons apart from his personality, (3) supervisory ratings, and (4) a combination of these three ratings. The combined rating indicates a correlation of .39 for elementary teachers and .56 for secondary. From these findings, the investigators concluded that the Minnesota Teacher Attitude Inventory is both valid and reliable.

Cook, Kearney, Rocchio, and Thompson (6) found that among fifty teachers, those most often liked by pupils had a mean score on the Minnesota Teacher Attitude Inventory of thirty-nine, while the most often disliked teachers of the same group had a mean score of eighteen. This study seems to substantiate the belief that teacher attitude, as measured by the Minnesota Teacher Attitude Inventory, is a valid, reliable predictor of the type of classroom emotional climate the teacher will be able to establish and maintain.

In a theoretically oriented study, Dellapiana and Gage (8) submit that a combination of teacher characteristics and pupil needs and values determines teacher classroom behavior. They based their study on the assumption that the values of pupils are factors in the effectiveness of teachers. The investigators hypothesized that pupils' liking of teachers results as a positive interaction between pupil values and teacher attitudes. The ninety-seven teacher subjects took

the Minnesota Teacher Attitude Inventory, and pupils completed inventories including a rating scale and a forced-choice instrument designed to indicate teacher effectiveness in helping pupils achieve intellectually as opposed to effectiveness in helping pupils with their social-emotional needs. The statistically significant correlation at the .05 level between the teacher attitude score and the pupil instruments led the investigators to conclude that their study supports the interactional point of view in the understanding of teacher-pupil relationships. Referring to the Minnesota Teacher Attitude Inventory, these investigators say,

. . . the MTAI will vary in validity for teacher effectiveness according to the values of the pupils interacting with the teacher. Teachers scoring high on the MTAI will probably be better liked by pupils who have strong affective values concerning teachers. If the pupils have strong cognitive values, the teacher's MTAI will make less difference (8, p. 178).

The present study used the Minnesota Teacher Attitude Inventory to assess teacher attitude, and the Guilford-Zimmerman Temperament Survey to measure certain personality characteristics of subjects of this study. Review of available literature reveals two research attempts to determine the relationship between these two instrument.

In 1956, Leeds (28) administered the Minnesota Teacher Attitude Inventory and the Guilford-Zimmerman Temperament Survey to 300 teachers in a large South Carolina city. A mean score of 29 and a standard deviation of 43 were obtained

for the Minnesota Teacher Attitude Inventory. The correlation coefficients between the Minnesota Teacher Attitude Inventory and the ten temperament measures of the Guilford-Zimmerman Temperament Survey ranged from $-.07$ to $.52$. All coefficients except General Activity, Restraint, and Thoughtfulness were significant at the $.01$ level. Leeds concludes that teachers who can be described as cooperative, friendly, objective, and emotionally stable tend to get along well with pupils. Those teachers who do not get along well with pupils tend to be critical and intolerant, hostile and belligerent, hypersensitive, depressed and emotionally unstable. The investigator suggests that ". . . to a certain extent, the Minnesota Teacher Attitude Inventory score is an indirect measure of these temperament traits" (28, p. 334). While the correlation coefficients reported appear high, the study seems to indicate that they are at least partially dependent upon the type of population used in the study.

Getzels and Jackson (12) report a study conducted at the University of Missouri to establish correlation between the Minnesota Teacher Attitude Inventory and the Guilford-Zimmerman Temperament Survey. Subjects were ninety-one women and twenty-six men. This study revealed a much lower correlation between the two instruments than did the Leeds study. The highest correlation reported in the University of Missouri study was $.28$ between the Minnesota Teacher Attitude Inventory and the trait of Personal Relations from

the Guilford-Zimmerman Temperament Survey. The only other personality trait to show significance at the .05 level was Emotional Stability..

Teacher Personality and Teaching Effectiveness

A review of the literature reveals that educational researchers are concerned with defining the concept of personality and providing adequate methods of measurement for personality. In addition, a large number of studies have been conducted in an attempt to establish positive correlation between measured teacher personality characteristics and perceived teaching effectiveness. This survey is limited to studies which used the Guilford-Zimmerman Temperament Survey, the personality measurement instrument employed in the present study, and to reported educational research concerned with the specific personality trait of authoritarianism (dogmatism).

Explaining the variety of concepts of personality, Hall and Lindzey state, ". . . personality is defined by the particular empirical concepts which are a part of the theory of personality employed by the observer" (15, p. 9).

In attempting to summarize the ideas most often included in definitions of personality, Kimble and Garnezy state,

1. Personality is almost always defined in a way that includes a variety of traits, capacities and abilities.
2. There is usually the suggestion that these traits are organized or integrated in some way.

3. Personality is commonly regarded as unique to the individual.

4. Personality is often regarded as affecting the relationship of the individual to others.

5. Personality is usually considered as fairly permanent and characteristics of the individual over an extended period of time (24, p. 89).

Getzels and Jackson (12) suggest that the first step in personality research involving teachers is to compare teacher scores with those of general norms established for a commercially available test. They further submit that the next most obvious procedure is to use the personality measurement instrument to discriminate between experimentally chosen criterion groups and that the most natural criterion groups would be "good" and "poor" teachers.

The literature suggests that the Guilford-Zimmerman Temperament Survey is a widely used instrument for the measurement of personality. Empirical data presented in the literature indicate that this instrument is a valid and reliable research tool. Therefore, the Guilford-Zimmerman Temperament Survey was selected for use in the present study to assess changes in selected teacher personality characteristics as a result of participation in the Taba In-Service Education Program.

On the following pages are summaries of significant research studies in which teacher personality as measured by the Guilford-Zimmerman Temperament Survey was correlated with perceived teaching effectiveness.

The Jones (22) study provides a mildly affirmative answer concerning whether the Guilford-Zimmerman Temperament Survey can be used to distinguish between effective and ineffective teachers. Using only five traits of the Guilford-Zimmerman Temperament Survey and other tests as well, she assessed the general personality of forty-six female teachers. A composite criterion including student teaching grades, placement bureau ratings, and principals' ratings established two subject groups, "good" teachers and "average" teachers. The study yielded a correlation of .46 with the criterion of teaching success for the temperament trait General Activity, as measured by the Guilford-Zimmerman Temperament Survey. This finding led Jones to conclude,

. . . good teachers would appear to be characterized as liking a rapid pace rather than a slow and deliberate one; they may be further characterized by a liking for quickness of action and production and efficiency (22, p. 178).

Gowan (13) records intercorrelations between the ten Guilford-Zimmerman Temperament Survey scores and two Teacher Prognosis Scales which he developed. Subjects for this study were teaching candidates in the UCLA testing program. A prognosis of good teaching is indicated by a high positive score on one of Gowan's tests and a high negative score on the other. Only three of the Guilford-Zimmerman Temperament Survey scales, General Activity, Thoughtfulness, and Masculinity, failed to correlate significantly with one or

both of Gowan's Teacher Prognosis Scales. Seven of the ten traits of the Guilford-Zimmerman Temperament Survey correlated significantly with the positively scored Teacher Prognosis Scale. Showing both consistent and significant correlations were the traits of Emotional Stability, Objectivity, Friendliness, and Personal Relations.

In a study to determine the meaning of the Minnesota Teacher Attitude Inventory scores, Leeds (28) used the Guilford-Zimmerman Temperament Survey with 300 teacher subjects. The research question was whether the Guilford-Zimmerman Temperament Survey would clarify ". . . those factors in personality and temperament that the MTAI is measuring" (28, p. 333). Only three of the ten Guilford-Zimmerman Temperament Survey scores failed to correlate positively with the Minnesota Teacher Attitude Inventory scores. The three exceptions were General Activity, Restraint, and Thoughtfulness. Highest correlations were found on the traits of Emotional Stability, Objectivity, Friendliness, and Personal Relations, .36, .44, .36, and .52, respectively.

In a review of available personality measurement instruments to be used in predicting teacher effectiveness, Getzels and Jackson evaluate the Guilford-Zimmerman Temperament Survey in this way:

In summary, results with the Guilford instrument are somewhat more consistent than those with other instruments. . . . Interpreted at

their face value, the results add support to a psychologically favorable picture of the teacher. Name a psychological "good"--sociability, emotional stability, friendliness, good personal relations--and teachers seem to have "more" of it than do nonteachers, and effective teachers more of it than ineffective teachers (12, p. 550).

Recently, educational researchers have investigated a specific facet of the teacher personality, dogmatism or authoritarianism, as a predictor of teaching behavior.

Rokeach describes the non-authoritarian as one who believes

. . . that the world one lives in, or the situation one is in at a particular moment, is a friendly one: that authority is not absolute and that people are not to be evaluated according to their agreement or disagreement with such authority (39, pp. 55-56).

According to Rokeach, the authoritarian is one who believes

. . . that the world one lives in, or the situation one is in at a particular moment is a threatening one . . . that people are to be accepted and rejected according to their agreement or disagreement with such authority (39, pp. 55-56).

The hypothesis of the McGee (31) investigation was that verbal responses of teachers to statements on an opinion attitude scale for measuring authoritarianism and teacher overt behavior toward pupils in the classroom are positively correlated. The findings of this study permit the author to conclude,

From the findings in the present study, it seems safe to conclude that what a person says on an anonymous questionnaire (ideology in words) and what he does (ideology in action)

are essentially the same stuff. The distinction between what a person says and what he does, it is asserted, is to be seen only as a matter of convenience; both are essentially behavior samples (31, p. 144).

In an effort to determine if personal values are influenced by dogmatism, Kemp (23) used the "Rokeach Dogmatism Scale" as the measuring instrument in his study. Findings indicated that dogmatism is related to personal value patterns, but the extent of the correlation is not significant. The investigator concludes that ". . . the highly dogmatic individual is less likely to live the more creative individualized life than the one less hampered by the effects of dogmatism" (23, p. 75).

The Pannes study sought to establish the relationship between dogmatism and self concept. The investigator reports that ". . . the more favorable the self image, the more closed the mind . . . the higher the I.Q., the more open the mind and the less favorable the self image . . ." (36, p. 158).

In her study concerned with dogmatism and verbal behavior, Moore concludes that

. . . low dogmatic persons are more attuned to and accepting of all incoming information, including the reinforcements of the experimenter . . . high dogmatic persons seem to be literally more "closed" to the objective stimuli (33, p. 41).

Billingsley's investigation (1) included the study of two groups of subjects, "typical" teachers and "gifted" teachers. Using the Minnesota Teacher Attitude Inventory, the Allport-Vernon-Lindzey Study of Values, and the

the California F Scale as instruments, the investigator concludes that the "gifted" teachers tend to be less authoritarian than "typical" teachers. The findings of this study also indicate that the more experienced the teacher, the greater the tendency toward authoritarianism.

The Lewis (29) study was designed to determine the relationship of authoritarianism, as revealed by the "Rokeach Dogmatism Scale," to perceived teacher effectiveness. This study indicates that teachers' self-ratings of effectiveness cannot be predicted from their authoritarianism scores. Highly authoritarian teachers tended to receive higher effectiveness ratings from principals and supervisors than did those less dogmatic teachers. Lewis concludes that the "Rokeach Dogmatism Scale" has limited usefulness in identifying effective teachers.

The purpose of Mouw's (34) study was to investigate the effects of dogmatism as defined by the "Rokeach Dogmatism Scale" on the five levels of cognitive processes as described in Bloom's Taxonomy of Educational Objectives: Cognitive Domain. Subjects measured as "closed minded" tended to decrease in performance as tasks became more autonomous. Subjects measured as "open minded" increased in performance as tasks became more complex and autonomous. These findings tend to support the notion that "closed minded" individuals tend to rely on authority for direction and support more than do "open minded" individuals. This study seems to

indicate that an authoritarian personality is a detrimental factor in teaching performance.

The aspect of personality adopted for the investigation by Del Popolo (9) was that of the authoritarian personality structure. The purpose of this study was to investigate the relationships between an individual's personality structure and his opinions and attitudes toward pupil-teacher relationships and his observable behavioral traits in a classroom setting. The 366 subjects were divided into a pilot study group, an experimental group, and a control group. Instruments used were an authoritarianism scale referred to as the A Scale, the Minnesota Teacher Attitude Inventory, and an author-constructed Observation Check Sheet for recording classroom behavioral traits. Data from the study permitted the investigator to conclude that authoritarian subjects got significantly lower scores than equalitarian subjects on the inventory of attitudes and opinions about teacher-pupil relationships. Authoritarian subjects tended to display behavior traits which implied an inability to establish harmonious pupil-teacher relationships, while equalitarian subjects displayed traits which were felt to be conducive to the establishment of desirable pupil-teacher relationships.

Summary

In her book The Self Concept, Wylie summarizes a review of the literature concerned with self concept in this way:

When one reads the empirical literature pertaining to self-concept theories, one finds that a bewildering array of hypotheses, measuring instruments, and research designs has been used. As a consequence, one cannot prepare a simple synthesis of the established results (47, p. 3).

However, psychological and educational researchers do seem to be in agreement that the concept of self is a dimension of personality that dictates individual behavior in any given situation. Agreement is also indicated with the idea that the way in which one perceives himself determines the way in which he will perceive others. Thus, one's self concept strongly influences his interpersonal relationships. A number of studies have been conducted to determine the correlation between teacher self concept and teaching effectiveness. These studies report varying degrees of relatedness between the two variables, making clear that the extent and consistency of their relationship has yet to be established. The studies cited support the need for extended research in this area.

Studies concerning teacher attitude reviewed in this chapter were limited to those investigations which attempted to establish teacher attitude as measured by the Minnesota Teacher Attitude Inventory as a correlate of teaching effectiveness. Findings of such studies tend to substantiate the hypothesis that teacher attitude toward the pupil-teacher relationship can be measured, and that such assessment can be considered a moderately reliable indicator of the type of

classroom emotional climate the teacher will establish and maintain. There is considerable evidence in the literature to indicate that the emotional climate of the classroom affects not only cognitive learning, but of even greater significance, the emotional health of the pupils. The literature suggests that the Minnesota Teacher Attitude Inventory has been the most widely used instrument for measuring teacher attitude. Empirical studies reported indicate the Minnesota Teacher Attitude Inventory to be a valid and reliable research instrument. Therefore, the Minnesota Teacher Attitude Inventory was selected for use in the present study to assess changes in teacher attitude as a result of participation in the Taba In-Service Education Program.

This survey of related literature indicates clearly that teacher personality is considered to be a prime determinant of teacher effectiveness by most investigators. The teacher personality as a whole, as well as specific aspects of personality, has been investigated in efforts to establish positive correlation between personality characteristics of teachers and perceived teaching effectiveness.

Researchers have had varying degrees of success in establishing this correlation, and the need for further investigation in this area is indicated by research findings.

The Guilford-Zimmerman Temperament Survey, a personality measuring device, was revealed to have been widely used in

personality studies. Findings from investigations employing this instrument were found to be somewhat more consistent than studies using other instruments to assess personality. Empirical data confirmed the Guilford-Zimmerman Temperament Survey to be both a valid and reliable instrument for personality measurement. Therefore, the Guilford-Zimmerman Temperament Survey was the instrument selected for use in the present study to assess changes in selected personality characteristics of teachers as a result of participation in the Taba In-Service Education Program.

The degree of authoritarianism, or dogmatism, found in the teacher personality and its relation to effective teaching practices has been the subject of some few investigations. Studies cited in this review indicate that while there seems to be a degree of relatedness between authoritarianism and teaching effectiveness, the correlation has not yet been shown to be significant or consistent. Extended research efforts are needed in this area.

The "Rokeach Dogmatism Scale" has been used extensively by researchers to determine the degree of authoritarianism present in an individual's personality. Empirical data have established this scale as a valid and reliable instrument. Therefore, the "Rokeach Dogmatism Scale" was selected for use in the present study to assess changes in teacher dogmatism as a result of participation in the Taba In-Service Education Program.

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CHAPTER III

METHODS AND PROCEDURES

The purpose of this study was to test the general hypothesis that participation in the Hilda Taba In-Service Education Program affects teacher self concept, attitude, and certain other personal characteristics related to effective teaching practices. To accomplish this purpose the overall design selected for this study was the non-equivalent control group design described by Campbell and Stanley in this way:

One of the most widespread experimental designs in educational research involves an experimental group and a control group both given a pretest and a posttest but in which the control group and the experimental group do not have pre-experimental equivalence. Rather, the groups constitute natural collectives . . . as similar as availability permits but not so similar that one can dispense with the pretest (3, p. 47).

This chapter is organized under the various headings which make up the major elements of the methods and procedures used in gathering the data for this study. These headings are (1) the selection of subjects, (2) description of the instruments used, (3) procedure for collecting the data, and (4) procedure for analysis of data.

Selection of Subjects

In a survey conducted in April, 1970, approximately 125 in-service teachers in a large suburban school district in the North Texas area indicated an interest in participating in the Hilda Taba In-Service Education Program to be offered by the school district during the 1970-71 school year. Subjects for this study were selected from this group of teachers.

For the 1970-71 school year, the school district involved in this study was able to offer the Taba Program to 50 teachers. From the 125 teachers who had volunteered to participate in the in-service activity, a panel of three school district administrators selected 50 teachers to participate in the Taba Program. Selection was made primarily in an effort to have each of the 16 elementary schools and three junior high schools of the district and each elementary grade level equally represented in the in-service program. At least one primary teacher and one intermediate teacher were chosen from each elementary school. Faculty size determined the number of additional participants from individual schools. Each junior high school was represented by at least one participant. These 50 teachers were designated as the experimental group for this study.

When the selection of the subjects for the experimental group of this study was completed, the remainder of the teachers who had expressed interest in the Taba Program were listed and numbered. By means of a table of random numbers,

50 of these teachers were selected to comprise the control group.

For various reasons six of the teachers chosen to participate in the Taba Program were unable to complete the program. Seven teachers assigned to the control group did not complete both the pretest and posttest. The experimental group for this study consisted of forty-four subjects, while the control-group subjects numbered forty-three. Thus, eighty-seven in-service teachers constituted the population of this study.

The distribution of the forty-four teacher subjects of the experimental group among the various elementary grade levels is shown in Table I.

TABLE I
THE DISTRIBUTION OF THE FORTY-FOUR TEACHER SUBJECTS OF THE
EXPERIMENTAL GROUP AMONG THE VARIOUS ELEMENTARY
GRADE LEVELS

Grade Level	Number
1	6
2	4
3	4
4	8
5	9
6	8
7	3
8	0
Special Education	2
Total	<u>44</u>

The distribution of the forty-three teacher subjects of the control group among the various elementary grade levels is shown in Table II.

TABLE II

THE DISTRIBUTION OF THE FORTY-THREE TEACHER SUBJECTS OF THE CONTROL GROUP AMONG THE VARIOUS ELEMENTARY GRADE LEVELS

Grade Level	Number
1	8
2	16
3	7
4	4
5	7
6	1
7	0
8	0
Total	43

Description of the Instruments Used
in the Study

The instrument used for measuring the self concept of subjects in this study was the Tennessee Self Concept Scale, Clinical and Research Form. Pitts, the author of this scale, states the purpose behind its construction as follows:

Over recent years a wide variety of instruments has been employed to measure the self concept. Nevertheless, a need has continued for a scale which is simple for the subject, widely applicable, well standardized, and multi-dimensional in its description of the self concept (6, p. 1).

In the original development of the Tennessee Self Concept Scale, Pitts compiled a large pool of self-descriptive items from various other self concept measuring instruments and from self-descriptions of clinical patients and non-patients. A phenomenological system was developed for classifying the items on the basis of content. Subsequently, seven clinical psychologists classified the items and

determined the positive or negative content of each item. The final ninety items utilized in the scale are those for which there was perfect agreement by the judges (6, p. 1).

The Tennessee Self Concept Scale consists of 100 self-descriptive items which the subject uses to portray his own picture of himself. The format of the answer sheet is two-dimensional on a three-by-five scheme. The horizontal columns allow the subject to state his Identity (Row I), Self Satisfaction (Row II), and Behavior (Row III). Further information regarding the subject's perception of the "selves" constituting his total self concept are recorded in five vertical columns indicating (A) physical self, (B) moral-ethical self, (C) personal self, (D) family self, and (E) social self. The self-concept score is the total of all these scores. These scores total the same both horizontally and vertically. This total is designated as "Total Positive Score." In terms of this study the following description of the "Total Positive Score" is employed:

1. Total P Score. This is the most important single score. . . . It reflects the overall level of self esteem. Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves (6, p. 2).

Directions require the subject to respond to the 100 statements of the instrument by encircling the one response

of the five possible responses which describes the subject as he sees himself. The five response categories are labeled completely false, mostly false, partly false and partly true, mostly true, and completely true.

When scoring the answer sheet, the subject receives the same numerical score for choices having the same relative positions on either side of three. If the "Total Positive Score" is above the mean as indicated by Fitts' Table of Means, Standard Deviations, and Reliability Coefficients (6, p. 14) (Mean = 345.57 and S.D. = 30.70), the subject is judged to have a positive self concept. Scores falling below the mean are judged to be indicators of a negative self concept.

Fitts (6, pp. 17-31) validates his instrument by listing approximately thirty studies in the areas of (1) content validity, (2) discrimination between groups, (3) correlation with other personality measures, and (4) personality changes under particular conditions. A reliability coefficient for the composite score (Total Positive Score) is reported by Fitts as .921 (6, p. 14).

Reviewing the Tennessee Self Concept Scale, Crites (5) reports test-retest reliability coefficients on the subscales as being generally in the .70's and .80's. He concludes that the initial psychometric data on this instrument are acceptable when evaluated by traditional test criteria.

The Tennessee Self Concept Scale was selected for use in this study for several reasons. First, reported reliability and validity coefficients of this scale made it highly acceptable. Second, administration, scoring, and interpretation of this instrument seemed suited for the purposes of this study. Third, this instrument yields a composite self concept score (Total Positive Score), a factor which was necessary in order to test the tenability of Hypothesis I of this study.

The Minnesota Teacher Attitude Inventory was selected as the instrument for measuring teacher attitudes in this study. Concerning the measurement of teacher attitudes, the authors of this instrument, Walter A. Cook, Carroll H. Leeds, and Robert Callis state,

Investigations carried on by the authors over the past ten years indicate that the attitudes of teachers toward children and school work can be measured with high reliability, and that they are significantly correlated with the teacher-pupil relations found in the teachers' classrooms. The Minnesota Teacher Attitude Inventory has emerged from these researches. It is designed to measure those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships, and indirectly how well satisfied he will be with teaching as a vocation (4, p. 3).

The rationale of the inventory is that teachers who maintain desirable teacher-pupil relations within the classroom will hold attitudes much different from those who do not maintain good teacher-pupil relations.

In constructing an attitude scale which would predict the type of teacher-pupil relations the teacher would maintain in the classroom, the authors of the Minnesota Teacher Attitude Inventory found it necessary to define the extremes of the scale. It was assumed that a teacher ranking at the high end of the scale would be able to maintain a state of harmonious relations with his pupils characterized by mutual affection and sympathetic understanding. At the other extreme of the scale was the teacher who attempts to dominate the classroom, to think in terms of his status, to be overly concerned with the correctness of the position he takes on classroom matters, and to be governed by the subject matter to be covered (4, p. 3). In devising the Minnesota Teacher Attitude Inventory, higher scores were assigned to the attitudes expressed by teachers who, according to the authors, had established desirable relations with their pupils; lower scores were assigned to those attitudes expressed by teachers having established less desirable teacher-pupil relations.

The construction of items for preliminary tryout of the Minnesota Teacher Attitude Inventory involved the canvassing of five areas of socio-educational literature about children. This was done in order to obtain an adequate sampling of attitudes. The five socio-educational areas are,

1. Moral status of children in the opinion of adults, especially as concerns their adherence to adult-imposed standards, moral or otherwise.

2. Discipline and problems of conduct in the classroom and elsewhere, and methods employed in dealing with such problems.

3. Principles of child development and behavior related to ability, achievement, learning motivation, and personality development.

4. Principles of education related to philosophy, curriculum, and administration.

5. Personal reactions of the teacher, likes, and dislikes, sources of irritation, etc. (4, p. 10).

From these 756 items, two experimental forms of the inventory emerged. A third, and final form, of the Minnesota Teacher Attitude Inventory consists of 150 items, 129 from the first experimental form and 21 from the second experimental form.

Validity and reliability coefficients for the Minnesota Teacher Attitude Inventory were determined by administering the instrument to a random sample of 100 teachers of grades four through six and correlating their scores with three outside criteria of teacher-pupil rapport. When the three criteria are combined with multiple regression weighting, Cook (4) reports the validity coefficient to be .60, and reliability coefficient, as determined by the split-half method, to be of the order of .90.

The Minnesota Teacher Attitude Inventory is self-administering. The subject reads the directions on the front of the booklet and then proceeds to respond to each of the 150 items in terms of (1) strongly disagree, (2) disagree, (3) undecided, (4) agree, and (5) strongly agree. There are no "right" or "wrong" answers. There is, rather, agreement

or disagreement with the specific attitude statements. Each positive response is given a value of plus one, and each negative response is given a value of minus one. The negative score subtracted from the positive score yields a composite attitude score. The possible range of scores is from plus 150 to minus 150. When the attitude score has been obtained, it may be compared with the appropriate norm group to get its equivalent percentile rank (4, pp. 5, 8, 9).

The Minnesota Teacher Attitude Inventory was selected for use in this study for several reasons. First, reported reliability and validity coefficients were highly acceptable. Second, administration, scoring, and interpretation of this instrument seemed suitable for this study. Third, this instrument yields a composite attitude score, a factor which was necessary in order to test the tenability of Hypothesis II of this study.

The Guilford-Zimmerman Temperament Survey was chosen to measure certain personality characteristics of the subjects involved in this study. The authors of this survey state that the purpose of this instrument is to combine the findings of the Guilford series of personality inventories into a single battery and thus obtain scores on ten personality traits from the administration of a single booklet (7, p. 1). These previous inventories provided the raw materials from which the 300 items of the survey were selected or reworked. Directions in the eight-page booklet ask the respondent to

agree or disagree with each of 300 simple and affirmative statements. However, provision is made for a question response by a choice of the following three answers: "yes," "no," and "?."

A high score on the Guilford-Zimmerman Temperament Survey is indicative of positive qualities of adjustment or behavior; a low score indicates negative qualities.

Norms for the survey were obtained for the traits on a college population of 523 men and 389 women. Kuder-Richardson formulas were applied to the data for men and women separately and combined. Odd-even and first-half-second-half correlations were obtained for a random sample of 100 men. The reliability with which each of the traits is assessed is shown to be of the order of .80; and the trait intercorrelations are generally small. This fact would seem to imply that all of the traits are approximately orthogonal in factor terms.

Concerning the validity of scores the authors state,

The internal validity or factorial validity of the scores is fairly well assured by the foundation of factor-analysis studies plus the successive item-analyses directioned toward internal consistency and uniqueness. It is believed that what each score measures is fairly well defined and that the score represents a confirmed dimension of personality and a dependable descriptive category (7, p. 6).

The ten personality traits measured by the Guilford-Zimmerman Temperament Survey are (G) general activity, (R) restraint, (A) ascendance, (S) sociability, (E) emotional

stability, (O) objectivity, (F) friendliness, (T) thoughtfulness, (P) personal relations, and (M) masculinity. This study was concerned only with the traits of thoughtfulness, personal relations, and objectivity.

Interpretation of the traits measured by the Guilford-Zimmerman Temperament Survey is given in the test manual, which describes positive qualities and negative qualities associated with each of the traits. The number of items scored for each temperament variable has been listed to give some idea of the relative importance of each quality in the total score. The titles of the categories are suggestive of the kind of adjustment or behavior to be expected in those subjects with high or low scores. The traits with which this study was concerned are interpreted in this way (7, p. 3):

Positive Qualities		Negative Qualities	Number of Items
O--Objectivity			
Being "thick-skinned"	vs	Hypersensitiveness . . .	10
		Egoism; self-centeredness . . .	8
		Suspiciousness; fancying of hostility . . .	6
		Having ideas of reference . . .	4
		Getting into trouble . . .	2
T--Thoughtfulness			
Reflectiveness; meditateness			8
Observing of behavior in others			6

Interested in thinking	vs	Interested in overt activity	5
Philosophically inclined			4
Observing of self			4
Mental poise	vs	Mental disconcertedness	3
P--Personal relations			
Tolerance of people	vs	Hypercriticalness of people; finding fault	13
Faith in social institutions	vs	Criticalness of institutions	8
		Suspiciousness of others	6
		Self pity	3

Regarding the Guilford-Zimmerman Temperament Survey, Buross states, ". . . the survey gives a very favorable impression of a well rounded, carefully worked out method of evaluating an important portion of the total personality" (2, p. 50).

The Guilford-Zimmerman Temperament Survey was selected for use in this study for several reasons. First, reported reliability and validity coefficients proved to be highly acceptable. Second, administration, scoring, and interpretation of this instrument seemed suitable for this study. Third, this instrument yields a separate score for each of the selected personality characteristics, which was necessary in order to test the tenability of Hypothesis III of this study.

To measure the dogmatism of the subjects involved in this study, the "Rokeach Dogmatism Scale" was selected. This scale, developed by Milton Rokeach (8), is designed to

measure two general personality characteristics, (1) general authoritarianism and (2) general intolerance.

Form E of the "Rokeach Dogmatism Scale" consists of forty items. The respondent is asked to express agreement or disagreement with each item by ascribing +1 (agree a little), +2 (agree on the whole), or +3 (strongly agree), and -1 (disagree a little), -2 (disagree on the whole), or -3 (strongly disagree). There is no neutral (0) position on the response scale.

In scoring the subjects' answers, a constant of four is added to each response, and the item values are then summed. For all statements, agreement is scored as closed, and disagreement as open. The possible range in the total score is 40 to 280.

Rokeach (8, p. 96) reports odd-even reliability coefficients, corrected by the Spearman Brown formula, ranging from .63 to .93. The validity of the scale was established by the method of known groups. This showed a significant difference between high and low dogmatics at the .01 level (8, p. 104). Several of the reliability and validity studies of the "Rokeach Dogmatism Scale" are reviewed in Chapter II of this study.

The "Rokeach Dogmatism Scale" was selected for use in this study for several reasons. First, reported reliability and validity coefficients proved to be acceptable. Second, administration, scoring, and interpretation of this

instrument seemed suitable for this study. Third, this instrument yields a composite score for the personality characteristic of dogmatism, a factor which was needed in order to test the tenability of Hypothesis IV of this study.

Procedure for Collection of the Data

In August, 1970, all teachers who had been selected to participate in the Hilda Taba In-Service Education Program were notified of their selection by the curriculum director of the school district. Those teachers who had been chosen as subjects for the control group were informed about this study, and asked to participate in the research project. Teachers in both groups were given the opportunity to decline to participate if they chose.

A pretest data collection time was scheduled at the instructional center of the school district during September, 1970. Teachers in both the experimental group and the control group were given released time from classroom duties by the school district to participate in the collection of data for this study.

At the request of the administrators of the participating school district and as an effort to establish a non-threatening situation for the teachers involved in this study, the subjects were given a complete explanation of the purposes and procedures of this study prior to the administration of the test instruments.

Under the supervision of the investigator, who was assisted by two school district staff members, the teacher subjects involved in this study were administered the Tennessee Self Concept Scale (Clinical and Research Form), the Minnesota Teacher Attitude Inventory, the Guilford-Zimmerman Temperament Survey, and the "Rokeach Dogmatism Scale." Directions for each instrument were read aloud to the subjects. None of the instruments was timed, and the subjects were permitted to work until they completed each instrument.

The schedule observed in the collecting of data for this study was as follows:

1. Administration of the Guilford-Zimmerman Temperament Survey.
2. Observance of a ten-minute rest period.
3. Administration of the Tennessee Self Concept Scale.
4. Administration of the "Rokeach Dogmatism Scale."
5. Observance of a fifteen-minute rest period.
6. Administration of the Minnesota Teacher Attitude Inventory.

During the months from September, 1970, to April, 1971, subjects in the experimental group, under the direction of a school district staff member, completed the approximately fifty-six hours of instruction which constitute the Hilda Taba In-Service Education Program.

Subsequently, a posttest data collection time was scheduled for both groups. Again the subjects were given released time from school duties to report to the instructional center where they responded to the Tennessee Self Concept Scale (Clinical and Research Form), the Guilford-Zimmerman Temperament Survey, the Minnesota Teacher Attitude Inventory, and the "Rokeach Dogmatism Scale."

This posttest data collection was supervised and conducted in the same manner as the pretest collection of data.

Procedure for Analysis of the Data

The purpose of this study was to determine the effect of participation in the Hilda Taba In-Service Education Program on teachers' self concept, attitude, and certain personality characteristics related to teaching effectiveness. Four hypotheses were expressed. All hypotheses were stated and tested as null hypotheses. The analysis of covariance technique was used to test the hypotheses.

After the data were collected, the answer sheets for each subject's responses to the four instruments selected for use in this study were handscored and the results transcribed onto data sheets. All statistical computations necessary to test the tenability of the four hypotheses of this study were conducted by the North Texas State University Computer Center.

Hypothesis I was tested by using analysis of covariance. The criterion measure for this test was the posttest score of the Tennessee Self Concept Scale. The covariant measure for this test was the pretest score of the Tennessee Self Concept Scale.

Hypothesis II was tested by using analysis of covariance. The criterion measure for this test was the posttest score of the Minnesota Teacher Attitude Inventory. The covariant measure for this test was the pretest score of the Minnesota Teacher Attitude Inventory.

Hypothesis III was tested by using analysis of covariance. The criterion measures for this test were the posttest scores of the following scales of the Guilford-Zimmerman Survey: (a) Objectivity Scale, (b) Thoughtfulness Scale, and (c) Personal Relations Scale. The covariant measures for this test were the pretest scores of these scales.

Hypothesis IV was tested by using analysis of covariance. The criterion measure for this test was the posttest score of the "Rokeach Dogmatism Scale." The covariant measure for this test was the pretest score of the "Rokeach Dogmatism Scale."

The F ratios obtained through analysis of covariance were tested for significance at the 5 percent level of significance.

For clarity of presentation, these mathematical computations have been entered into tables. These tables and an analysis of the data are reported in Chapter IV.

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CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this chapter is to present and analyze the statistical results based on the data collected in this study. The statistical computations necessary to test the tenability of the hypotheses stated in this study were performed at the North Texas State University Computer Center. The analysis of covariance technique was used to test for significance of differences between the means of the experimental and control groups on the criterion measures. The analysis of covariance was used because

. . . it is a blending of regression and the analysis of variance, which permits statistical rather than experimental control of variables. The result is equivalent to matching the various experimental groups with respect to the variable or variables being controlled (6, p. 254).

The formula used in the computation of the analysis of covariance was the standard formula used by the North Texas State University Computer Center.

The research hypotheses were stated in the null form for statistical treatment. The .05 level of significance was selected as the level at which these null hypotheses would be rejected or retained.

Hypothesis I

Research Hypothesis I stated there would be no significant difference between mean self-concept score of teachers who had participated in the Hilda Taba In-Service Education Program and the mean self-concept score of teachers who had not participated in the Taba Program.

In order to test this hypothesis, group means based on pretest and posttest scores from the Tennessee Self Concept Scale were compared. The pretest and posttest group means and the adjusted means for the experimental and control groups are shown in Table III.

TABLE III

PRETEST, POSTTEST, AND ADJUSTED MEANS FOR THE EXPERIMENTAL AND CONTROL GROUP ON THE VARIABLE OF TEACHER SELF CONCEPT

Source	Pretest Means	Posttest Means	Adjusted Means
Experimental	350.13	362.59	365.62
Control	357.97	356.04	352.93

The pretest mean score of the experimental group for teacher self concept was 350.13 and the posttest mean score was 362.59, an increase of 12.46 points. The pretest mean score of the control group was 357.97, while the posttest mean was slightly lower at 356.04. The adjusted means obtained by analysis of covariance for the experimental and

control groups for the pretest and posttest scores were 365.62 and 352.93 respectively. A summary of the statistical analysis of the variable teacher self concept is presented in Table IV.

TABLE IV
ANALYSIS OF COVARIANCE FOR THE VARIABLE OF TEACHER
SELF CONCEPT

Source	SS	DF	MS	F
Between	3,452.10	1	3452.10	8.69*
Within	33,357.07	84	397.10	. . .
Total	36,809.18	85	. . . .	. . .

*Significant at the .01 level.

The between sum of squares was 3452.10, which, with 1 degree of freedom, gave a mean-square of 3452.10. The within sum of squares was 33,357.07, and with 84 degrees of freedom, this yielded a mean-square of 397.10. In the comparison of mean differences for the experimental and control group, an F ratio of 8.69 was found. This F ratio is statistically significant beyond the .01 level.

Analysis of these data indicates that, as measured by the Tennessee Self Concept Scale, participation in the Hilda Tabo In-Service Education Program seemed to have a strong positive effect on self concept. These teachers reflected a greater tendency to like themselves more, feel more strongly that they are individuals of value and worth, have

greater confidence in themselves and their abilities, and act accordingly, than did teachers who had not participated in the Taba Program. Therefore, Hypothesis I was rejected.

Hypothesis II

Research Hypothesis II stated there would be no significant difference between mean teacher-attitude scores of teachers who had participated in the Hilda Taba In-Service Education Program and mean teacher-attitude scores of teachers who had not participated in the Taba Program.

In order to test this hypothesis, group means based on pretest and posttest scores from the Minnesota Teacher Attitude Inventory were compared. The pretest and posttest group means and the adjusted means for the experimental and control groups are found in Table V.

TABLE V

PRETEST, POSTTEST, AND ADJUSTED MEANS FOR THE EXPERIMENTAL AND CONTROL GROUP ON THE VARIABLE OF TEACHER ATTITUDE

Source	Pretest Means	Posttest Means	Adjusted Means
Experimental	45.38	69.54	65.21
Control	34.16	40.13	44.57

The pretest mean score of the experimental group for teacher attitude was found to be 45.38, and the posttest mean score was 69.54, an increase of 24.16 points. The

pretest mean score of the control group was 34.16, with the posttest mean score increasing to 40.13. Thus, both groups showed an increase in teacher attitude scores. The adjusted means obtained by analysis of covariance for the experimental and control groups for the pretest and posttest scores were 65.21 and 44.57 respectively. A summary of the statistical analysis of the variable teacher attitude is shown in Table VI.

TABLE VI
ANALYSIS OF COVARIANCE FOR THE VARIABLE OF TEACHER ATTITUDE

Source	SS	DF	MS	F
Between	8,891.60	1	8891.60	27.84*
Within	26,826.29	84	319.36	. . .
Total	35,717.90	85	. . . .	. . .

*Significant at the .001 level.

The between sum of squares was 8891.60, which, with 1 degree of freedom, gave a mean-square of 8891.60. The within sum of squares was 26,826.29, and with 84 degrees of freedom, this yielded a mean-square of 319.36. In the comparison of mean differences for the experimental and control group, an F ratio of 27.84 was found. This F ratio is statistically significant at the .001 level.

Analysis of these data indicates that, as measured by the Minnesota Teacher Attitude Inventory, participation in the Hilda Taba In-Service Education Program seemed to have

strong positive effect on the attitude of teachers toward interpersonal relationships with pupils and toward teaching as a vocation. These teachers reflected a greater tendency to maintain a state of harmonious relations with pupils characterized by mutual affection and sympathetic understanding, and seemed to enjoy the teaching profession more than did teachers who had not participated in the Taba Program. Therefore, Hypothesis II was rejected.

Hypothesis III(a)

Research Hypothesis III(a) stated there would be no significant difference between mean score for the personality trait of objectivity between teachers who had participated in the Hilda Taba In-Service Education Program and mean objectivity score of teachers who had not participated in the Taba Program.

In order to test this hypothesis, group means based on pretest and posttest scores from the Objectivity Scale of the Guilford-Zimmerman Temperament Survey were compared. The pretest and posttest group means and the adjusted means for the experimental and control groups are shown in Table VII.

The pretest mean score of the experimental group for teacher objectivity was 19.43, and the posttest mean score was 19.77. The pretest mean score for the control group was 19.02, while the posttest mean score was 19.60. There was

TABLE VII

PRETEST, POSTTEST, AND ADJUSTED MEANS FOR THE EXPERIMENTAL
AND CONTROL GROUP ON THE VARIABLE OF TEACHER
OBJECTIVITY

Source	Pretest Means	Posttest Means	Adjusted Means
Experimental	19.43	19.77	19.61
Control	19.02	19.60	19.76

little change in the pretest and posttest objectivity mean scores of either the experimental or control group. The adjusted means obtained by analysis of covariance for the experimental and control groups for the pretest and posttest were 19.61 and 19.76 respectively. A summary of the statistical analysis of the variable of teacher objectivity is presented in Table VIII.

TABLE VIII

ANALYSIS OF COVARIANCE FOR THE VARIABLE OF TEACHER
OBJECTIVITY

Source	SS	DF	MS	F
Between	.44	1	.44	.03*
Within	1164.22	84	13.85	. .
Total	1164.66	85	. . .	. .

*Not significant at .05 level.

The between sum of squares was .44, which, with 1 degree of freedom, gave a mean-square of .44. The within

sum of squares was 1164.22, and with 84 degrees of freedom, this yielded a mean-square of 13.85. In the comparison of pretest and posttest mean differences for the experimental and control group, an F ratio of .03 was found. This F ratio is not statistically significant at the established .05 level.

Analysis of these data indicates that, as measured by the Objectivity Scale of the Guilford-Zimmerman Temperament Survey, participation in the Hilda Taba In-Service Education Program did not seem to affect the teachers' personality trait of objectivity. These teachers did not evince a greater tendency toward less egoism than did teachers who had not participated in the Taba Program. Therefore, Hypothesis III(a) was retained.

Hypothesis III(b)

Research Hypothesis III(b) stated there would be no significant difference between mean score for the personality trait of thoughtfulness between teachers who had participated in the Hilda Taba In-Service Education Program and mean thoughtfulness score of teachers who had not participated in the Taba Program.

In order to test this hypothesis, group means based on pretest and posttest scores from the Thoughtfulness Scale of the Guilford-Zimmerman Temperament Survey were compared.

The pretest and posttest group means and the adjusted means for the experimental and control groups are found in Table IX.

TABLE IX
PRETEST, POSTTEST, AND ADJUSTED MEANS FOR THE EXPERIMENTAL AND CONTROL GROUP ON THE VARIABLE OF TEACHER THOUGHTFULNESS

Source	Pretest Means	Posttest Means	Adjusted Means
Experimental	18.88	20.27	19.86
Control	17.76	18.39	18.80

The pretest mean score of the experimental group for thoughtfulness was 18.88, while the posttest mean score was 20.27. The pretest mean score of the control group was 17.76, and the posttest mean score was 18.39. There was a slight increase in the mean thoughtfulness score for both the experimental and control group. The adjusted means obtained by analysis of covariance for the experimental and control groups for the pretest and posttest scores were 19.86 and 18.80 respectively. A summary of the statistical analysis of the variable teacher thoughtfulness is shown in Table X.

The between sum of squares was 23.92, which, with 1 degree of freedom, gave a mean-square of 23.92. The within sum of squares was 1016.98, and with 84 degrees of freedom,

TABLE X
ANALYSIS OF COVARIANCE FOR THE VARIABLE OF TEACHER
THOUGHTFULNESS

Source	SS	DF	MS	F
Between	23.92	1	23.92	1.97*
Within	1016.98	84	12.10	. . .
Total	1040.90	85	. . .	. . .

*Not significant at .05 level.

this yielded a mean-square of 12.10. In the comparison of mean differences for the experimental and control group, an F ratio of 1.97 was found. This F ratio is not statistically significant at the established .05 level.

Analysis of these data indicates that, as measured by the Thoughtfulness Scale of the Guilford-Zimmerman Temperament Survey, participation in the Hilda Taba In-Service Education Program did not seem to affect the teachers' personality trait of thoughtfulness. These teachers did not demonstrate a greater tendency to be more tactful and reflective than did teachers who had not participated in the Taba Program. Therefore, Hypothesis III(b) was retained.

Hypothesis III(c)

Research Hypothesis III(c) stated there would be no significant difference between mean score for the personality trait of personal relations between teachers who had participated in the Hilda Taba In-Service Education Program and

mean personal relations score of teachers who had not participated in the Taba Program.

In order to test this hypothesis, group means based on pretest and posttest scores from the Personal Relations Scale of the Guilford-Zimmerman Temperament Survey were compared. The pretest and posttest group means and the adjusted means for the experimental and control groups are revealed in Table XI.

TABLE XI

PRETEST, POSTTEST, AND ADJUSTED MEANS FOR THE EXPERIMENTAL AND CONTROL GROUP ON THE VARIABLE OF TEACHER PERSONAL RELATIONS

Source	Pretest Means	Posttest Means	Adjusted Means
Experimental	18.45	21.40	21.81
Control	19.65	20.04	19.62

The pretest mean score of the experimental group for teacher personal relations was 18.45, and the posttest mean score was 21.40, an increase of 2.95 points. The pretest mean score for the control group was 19.65 and the posttest mean score was slightly higher at 20.04. The adjusted means obtained by analysis of covariance for the experimental and control groups for the pretest and posttest scores were 21.81 and 19.62 respectively. A summary of the statistical analysis of the variable of teacher personal relations is given in Table XII.

TABLE XII
ANALYSIS OF COVARIANCE FOR THE VARIABLE OF TEACHER
PERSONAL RELATIONS

Source	SS	DF	MS	F
Between	103.07	1	103.07	7.79*
Within	1110.56	84	13.22	. . .
Total	1213.64	85	. . .	. . .

*Significant at .01 level.

The between sum of squares was 103.07, which, with 1 degree of freedom, gave a mean-square of 103.07. The within sum of squares was 1110.56, and with 84 degrees of freedom, this yielded a mean-square of 13.22. In the comparison of mean differences for the experimental and control group, an F ratio of 7.79 was found. This F ratio is statistically significant beyond the .01 level.

Analysis of these data indicates that, as measured by the Personal Relations Scale of the Guilford-Zimmerman Temperament Survey, participation in the Hilda Taba In-Service Education Program seemed to have a strong positive effect on the teachers' personality trait of personal relations. These teachers reflected a greater tendency to be more tolerant of others, to understand other people and their weaknesses better, and to be able to "get along" better with others than did teachers who had not participated in the Taba Program. Therefore, Hypothesis III(c) was rejected.

Hypothesis IV

Research Hypothesis IV stated there would be no significant difference between mean score for the personality trait of dogmatism between teachers who had participated in the Hilda Taba In-Service Education Program and mean dogmatism score of teachers who had not participated in the Taba Program.

In order to test this hypothesis, group means based on pretest and posttest scores from the "Rokeach Dogmatism Scale" were compared. The pretest and posttest group means and the adjusted means for the experimental and control groups are given in Table XIII.

TABLE XIII

PRETEST, POSTTEST, AND ADJUSTED MEANS FOR THE EXPERIMENTAL AND CONTROL GROUP ON THE VARIABLE OF TEACHER DOGMATISM

Source	Pretest Means	Posttest Means	Adjusted Means
Experimental	140.79	128.72	131.94
Control	149.95	140.86	137.57

The pretest mean score of the experimental group for teacher dogmatism was found to be 140.79 and the posttest mean score was 128.72, a decrease of 12.07 points. The pretest mean score for the control group was 149.95, while the posttest mean score was 140.86, a decrease of 9.09 points. The adjusted means obtained by analysis of covariance for the experimental and control groups for the pretest

and posttest scores were 131.94 and 137.57 respectively. A summary of the statistical analysis of the variable of teacher dogmatism is shown in Table XIV.

TABLE XIV
ANALYSIS OF COVARIANCE FOR THE VARIABLE OF TEACHER DOGMATISM

Source	SS	DF	MS	F
Between	661.86	1	661.86	2.91*
Within	19,097.72	84	227.35	. . .
Total	19,759.58	85	. . .	. . .

*Not significant at .05 level.

The between sum of squares was 661.86, which, with 1 degree of freedom, gave a mean-square of 661.86. The within sum of squares was 19,097.72, and with 84 degrees of freedom, this yielded a mean-square of 227.35. In the comparison of mean differences for the experimental and control group, an F ratio of 2.91 was found. This F ratio is not statistically significant at the established .05 level.

Analysis of these data indicates that, as measured by the "Rokeach Dogmatism Scale," participation in the Hilda Taba In-Service Education Program seems to decrease teacher dogmatism, but the mean scores were not sufficiently different to pass the test of significance. Therefore, Hypothesis IV was retained.

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CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary review of the purposes, procedures, and findings of this study, conclusions drawn from the findings, and recommendations generated by this research.

Summary

The purpose of this study was to determine the extent to which teachers' self concept, attitude, and selected personal characteristics were affected by participation in the Hilda Taba In-Service Education Program.

The hypotheses were stated in the null form as follows:

I. There will be no significant difference between the mean self-concept score of teachers who have participated in the Taba Program and the mean self-concept score of teachers who have not participated in the Taba Program, as measured by the Tennessee Self Concept Scale.

II. There will be no significant difference between the mean attitude score of teachers who have participated in the Taba Program and the mean attitude score of teachers who have not participated in the Taba Program, as measured by the Minnesota Teacher Attitude Inventory.

III. There will be no significant difference between the mean personality trait scores of teachers who have participated in the Taba Program and the mean personality trait scores of teachers who have not participated in the Taba Program, as measured by the following scales of the Guilford-Zimmerman Temperament Survey: (a) Objectivity Scale, (b) Thoughtfulness Scale, and (c) Personal Relations Scale.

IV. There will be no significant difference between the mean dogmatism score of teachers who have participated in the Taba Program and the mean dogmatism score of teachers who have not participated in the Taba Program, as measured by the "Rokeach Dogmatism Scale."

The overall design selected for the research was the non-equivalent control group design, an experimental design that involved an experimental group and a control group, both of which were given a pretest and posttest. The two groups did not have experimental equivalence but were natural collectives as similar as availability permitted. The analysis of covariance technique was used to achieve statistical control over variables. The F ratios obtained through the analysis of covariance were tested for significance at the 5 percent level of significance.

This study was conducted on the premise that teacher self concept, teacher attitude, and teacher personality are correlates of teaching effectiveness; therefore, an in-service study which positively affects these personal

qualities of teachers can be considered an effective in-service program. A review of related literature revealed an extensive number of studies which tended to support this premise. The literature chosen for review was limited, wherever possible, to studies in which the research instruments used were the same as those selected for use in this study. These studies were organized and reviewed by the following topic headings: (1) Teacher Self Concept and Teaching Effectiveness, (2) Teacher Attitude and Teaching Effectiveness, and (3) Teacher Personality and Teaching Effectiveness.

In a survey conducted in April, 1970, approximately 125 in-service teachers in a large suburban school district in the North Texas area indicated an interest in participating in the Hilda Taba In-Service Education Program to be offered by the school district during the 1970-71 school year. Subjects for this study were selected from this group of teachers. A panel of three school district administrators selected 50 teachers from the volunteer group to participate in the Taba Program. Selection was made primarily in an effort to have each of the 16 elementary schools and three junior high schools of the district equally represented in the in-service program. These 50 teachers were designated as the experimental group for this study.

When the selection of the subjects for the experimental group of this study was completed, the remainder of the

teachers who had expressed interest in the Taba Program were listed and numbered. By use of a table of random numbers, fifty of these teachers were selected to comprise the control group for this study. For various reasons six of the teachers chosen for the experimental group did not complete the program, and seven of the control group did not participate in both the pretest and posttest data collection. Thus, eighty-seven in-service teachers constituted the population of this study.

The Hilda Taba In-Service Education Program presents an inquiry approach to teaching and learning. Autonomy of the learner is the basis of each of the four cognitive tasks which constitute the Taba Program. The strategies which teachers learn in the program are systematized and organized procedures for guiding pupil-teacher and pupil-pupil interaction based on research findings in the fields of education, psychology, and curriculum development. This in-service program emphasizes awareness of the learner's autonomy. This awareness combines with the art and techniques of good teaching to produce identifiable strategies which are intended to help children learn important ideas and thinking skills.

From September, 1970, to May, 1971, teachers in the experimental group of this study were given two hours per week of released time from school duties to participate in the Taba In-Service Program. During this period these

teachers received approximately fifty-six hours of instruction from an instructor who had completed the leadership training study offered by the Institute for Staff Development, Miami, Florida, developers of the Hilda Taba In-Service Education Program. In addition, participating teachers were asked to plan and conduct discussions using each of the four Taba strategies with their pupils in the classroom setting. These discussions were observed by the Taba Program instructor, and a joint evaluation of the discussions was made by the instructor and the participating teacher.

Subjects in both the experimental and control groups responded on a pretest and posttest basis to four instruments: the Tennessee Self Concept Scale, the Minnesota Teacher Attitude Inventory, the Guilford-Zimmerman Temperament Survey, and the "Rokeach Dogmatism Scale."

The Tennessee Self Concept Scale was chosen to measure the overall level of self esteem of the subjects. This instrument purports to reflect the extent to which subjects feel that they are persons of value and worth and estimates the individual's level of self-confidence.

The Minnesota Teacher Attitude Inventory was selected as the instrument for measuring teacher attitude. This instrument is designed to measure those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships, and indirectly, how well satisfied he will be with teaching as a vocation.

The Guilford-Zimmerman Temperament Survey was used to measure certain personality characteristics of the subjects involved in this study. The entire survey measures ten separate personality traits. This study was concerned with the following traits: (a) Objectivity, (b) Thoughtfulness, and (c) Personal Relations. Objectivity is explained as a personal trait having to do with egoism, while Thoughtfulness is interpreted as a personal trait having to do with tact, reflection, and planning. Personal Relations is a personal trait having to do with tolerance, understanding of other people and their weaknesses, and the ability to "get along" with others.

The "Rokeach Dogmatism Scale" was selected to measure the dogmatism of the subjects involved in this study. This scale is designed to measure two general personality characteristics: (1) general authoritarianism and (2) general intolerance.

The statistical analysis of the data revealed the following:

There was a significant difference at the .01 level in the mean self-concept score of teachers who had participated in the Taba Program and the mean self-concept score of teachers who had not participated in the program. Teachers who had participated in the Taba Program reflected a greater tendency to like themselves more, feel more strongly that they are individuals of value and worth, have greater

confidence in themselves and their abilities, and act accordingly, than did teachers who had not participated in the Taba Program.

There was a significant difference at the .001 level in the mean attitude score of teachers who had participated in the Taba Program and the mean attitude score of teachers who had not participated in the program. Teachers who had participated in the Taba Program reflected a greater tendency to maintain a state of harmonious relations with pupils characterized by mutual affection and sympathetic understanding, and seemed to enjoy the teaching profession more than did teachers who had not participated in the Taba Program.

There was no significant difference at the .05 level between the mean score for the personality trait of objectivity between teachers who had participated in the Hilda Taba In-Service Education Program and the mean objectivity score of teachers who had not participated in the Taba Program. Teachers who had participated in the Taba Program did not show a greater tendency toward less egoism than did teachers who had not participated in the program.

There was no significant difference at the .05 level between the mean score for the personality trait of thoughtfulness between teachers who had participated in the Hilda Taba In-Service Education Program and the mean thoughtfulness score of teachers who had not participated in the Taba Program. Teachers who had participated in the Taba Program

did not demonstrate a greater tendency to be more tactful and reflective than did teachers who had not participated in the program.

There was a significant difference at the .01 level between the mean score for the personality trait of personal relations between teachers who had participated in the Hilda Taba In-Service Education Program and the mean personal relations score of teachers who had not participated in the Taba Program. Teachers who had participated in the Taba Program reflected a greater tendency to be more tolerant of others, to understand other people and their weaknesses better, and to be able to "get along" better with others than did teachers who had not participated in the program.

There was no significant difference at the .05 level between the mean score for the personality trait of dogmatism between teachers who had participated in the Hilda Taba In-Service Education Program and the mean dogmatism score of teachers who had not participated in the Taba Program. It is interesting to note, however, that comparison of the two groups' mean dogmatism scores indicates that subjects in the experimental group tended to make a greater change toward less dogmatism than did those in the control group.

Conclusions

Findings pertinent to assessing the effects of participation in the Hilda Taba In-Service Education Program on

certain personal qualities of teachers were revealed through the testing of four null hypotheses and are limited to the sample utilized in this study. All subjects involved in this study were in-service teachers in a large suburban school district in the North Texas area who volunteered to participate in the Hilda Taba In-Service Education Program offered by the school district.

The conclusions which follow were drawn on the basis of careful treatment and analysis of data collected to ascertain changes in teachers' self concept, attitude, and selected personality characteristics as a result of participation in the Taba In-Service Education Program.

1. It may be concluded that participation in the Hilda Taba In-Service Education Program produced positive changes in teacher self concept.

2. It may be concluded that participation in the Hilda Taba In-Service Education Program produced desirable changes in teacher attitude.

3. It may be concluded that participation in the Hilda Taba In-Service Education Program positively affected the quality of teacher personal relations.

4. It may be concluded that participation in the Hilda Taba In-Service Education Program did not alter significantly the personality traits of teacher dogmatism, teacher objectivity, or teacher thoughtfulness.

5. Based upon the review of research and the findings of this study, it may be concluded that participation in the Hilda Taba In-Service Education Program appears to produce positive changes in certain personal qualities of teachers related to teaching effectiveness; therefore, the Taba Program may be considered an effective in-service education program.

Recommendations

This study provides information regarding the effects of participation in the Hilda Taba In-Service Education Program on personal qualities of teachers which are related to teaching effectiveness. Based upon the review of research and the findings of this study, the following recommendations are made:

1. It is recommended that a study be designed and conducted during the coming school year to determine whether the teachers who have participated in the Taba Program exhibit classroom behavior indicative of the positive personal attitudes which findings of this study suggest are currently held by these teachers.

2. It is recommended that within a two- to three-year-period this study be repeated to determine whether the indicated changes in personal characteristics of teachers who have participated in the Taba Program are lasting.

3. It is recommended that research be conducted to determine whether there are certain qualifications such as age, sex, teaching experience, and professional education, which are significantly related to the degree of individual change in personal characteristics of teachers who participate in the Taba Program.

4. It is recommended that a similar study be conducted in a situation in which the fifty-six hours of Taba Program instruction are presented in a time period less than an entire school year.

5. It is recommended that research be conducted to determine whether a correlation exists between effectiveness ratings of teachers by supervisors and participation in the Taba Program.

6. It is recommended that extended research be carried out as a means of assessing changes in a variety of personality characteristics and classroom behaviors of teachers who participate in the Taba Program.

7. It is recommended that a study be conducted to determine personal and academic differences in students whose teacher has participated in the Taba Program and those whose teacher has not participated in the program.

8. It is further recommended that the Hilda Taba In-Service Education Program be considered an effective agent for bringing about positive change in certain personal characteristics which are related to teaching effectiveness.

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