A COMPARATIVE STUDY OF THE MICHIGAN STATE UNIVERSITY CLUSTER PROGRAM AND THE CONVENTIONAL PROGRAM OF STUDENT TEACHING IN THE SAGINAW AREA WITH REFERENCE TO STEREOTYPIC BELIEFS AND ATTITUDE FORMATION

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ABSTRACT

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Purpose of the Study

This study was designed to compare the Michigan State University Conventional Program of student teaching with the Cluster Program with reference to stereotypic beliefs and attitude formation. Information was obtained to answer the following questions about the effectiveness of the programs: (1) Do student teachers in the Cluster Program show a higher gain score as measured by the Minnesota Teacher Attitude Inventory, which reflects attitudes toward pupils and teaching as a profession, than student teachers in the Conventional Program? (2) Do student teachers in the Cluster Program show a higher gain score as measured by the Inventory of Beliefs (Stereotypic Beliefs), which reflects beliefs which are adaptive, flexible, and democratic toward people, than student teachers in the Conventional Program?

Methodology

This was a comparative study in which eighteen student teachers in the Cluster Program and sixteen student teachers in the Conventional Program at the Michigan State University-Saginaw Student Teaching Center spring term, 1971, were given a pre-test of the Minnesota Teacher Attitude Inventory, the Inventory of Beliefs, and a Personal Data Form the first week of student teaching, and a post-test of the inventories the tenth and final week of student teaching. The Multivariate Analysis of Variance was used as the statistical model.

Findings of the Study

1. The student teachers in the Cluster Program showed a higher positive gain score on the Inventory of Beliefs than the student teachers in the Conventional Program, but the gain score was not statistically significant.

2. The student teachers in the Cluster Program showed a higher negative gain score on the Minnesota Teacher Attitude Inventory than the student teachers in the Conventional Program, but the gain score was not statistically significant.

3. There was a difference between the gain scores of the Inventory of Beliefs and the Minnesota Teacher

Attitude Inventory in the Cluster and Conventional Programs, but the difference was not statistically significant.

4. There was not a statistically significant effect on gain scores to indicate a relationship between sex and the attitudes and stereotypic beliefs of student teachers.

5. There was not a statistically significant effect on gain scores to indicate a relationship between grade-point average and the attitudes and stereotypic beliefs of student teachers.

Recommendations

1. Reassess the Minnesota Teacher Attitude Inventory and devise additional research instruments to determine affective development of teachers.

2. Design additional studies to evaluate the effectiveness of the Cluster Program, including a random sample of all student teachers in Cluster Programs of Michigan State University around the state of Michigan in comparison with a random sample of Conventional Programs of Michigan State University.

3. Examine the relationship between attitudes, actual teacher behaviors, and reactions to teacher behaviors in the classroom.

4. Assess and observe students in the teacher education program over a two or three-year period to determine their patterns of growth, using various inventories on attitudes and achievement.

DEDICATION

To my wife, Carol and two sons, Tim and Christopher, who have been most patient and understanding during this experience, and to my parents, Floyd and Marion Parker, this thesis is dedicated with my love.

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CHAPTER I

INTRODUCTION

The Need for the Study

Teacher educators have raised basic questions for many years regarding the effectiveness of teacher preparation programs. What makes an effective teacher? What experiences are essential for the preparation of a teacher? Similar questions have been raised by various people. Ryans has stated:

> Relatively little reliable information is available regarding the nature of a good teacher and the teacher characteristics which contribute to it, in spite of the recognition and lip service accorded to good teaching. . . . Without losing sight of the important need for developing the means of recognizing good teachers, attention of research might first more properly be directed toward the identification and estimation of some of the major patterns of teacher behavior.[1]

The difficulty then lies in gaining a perception of the concept of teacher effectiveness. In looking at the characteristics of an effective teacher, a variety of skills and abilities tend to center around (1) those

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[1]David Ryans, Characteristics of Teachers: Their Description, Comparison, and Appraisal (Washington, D.C.: American Council on Education, 1960), pp. 1-2.

mental abilities cognitive in nature, and (2) those abilities stemming from the teacher's personality--interests, beliefs, and attitudes.[2] The intellectual characteristics of teachers can be measured with considerable success but relatively little information is available about the second group of characteristics--those commonly classified in the composite of "personality" of the teacher.[3] Much of the research has been done on the person's cognitive development but a greater concern is currently being placed on the affective development. Through the utilization of attitudes, beliefs, and specific teacher traits, the personality of the teacher has become an important tool in the assessment of an effective teacher. Getzels and Jackson conclude that:

> Despite the critical importance of the problem and a half-century of prodigious research effort, very little is known for certain about the nature and measurement of teacher personality and teacher effectiveness. . . . What is needed is not research leading to reiteration of the self-evident but the discovery of specific and distinct features of teacher personality and teacher effectiveness.[4]

Before completing the requirements for a teaching certificate, the prospective teacher is exposed to an

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[2] Ibid., p. 4.

[3] Ibid.

[4] J. W. Getzels and P. W. Jackson, "The Teacher's Personality and Characteristics," Handbook of Research on Teaching, ed. by N. L. Gage (Chicago: Rand McNally & Co., 1963), p. 508.

enormous amount of ideas, materials, and experiences in the teacher education program. Considerable emphasis in the program seems to be placed upon the student teaching portion, where the student is directly exposed to a classroom experience and learns to work with children, teachers, administrators, and other personnel of the school in which he is operating. The differing perceptions that student teachers hold of student teaching is a field of study that has not been widely researched. Reliable data is required if progress is to be made in encouraging different styles and models for teaching. Combs stated in 1965:

> If teacher education is to be concerned with changing student perception, we need clear definitions of what the perceptual organizations of effective teachers are like. We need a tremendous research effort to explore that question with greatest possible speed. Already there is a quickening of interest in these matters, and it is probable that we shall have detailed experimental evidence in considerable quantities within the next four or five years.[5]

Along with reference to the characteristics of student teachers, it seemed desirable to incorporate into the study the two programs or models of student teaching used at Michigan State University. These two models, the "Conventional" Program and the "Cluster" Program, will be discussed in greater detail.

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[5]Arthur W. Combs, The Professional Education of Teachers: A Perceptual View of Teacher Education (Boston: Allyn & Bacon, Inc., 1965), p. 19.

Conventional Program

The general practice in the past has been a Conventional Program of student teaching where the student teachers are placed with supervising teachers on a one-to-one basis. Activities are planned by that supervising teacher with some assistance from the student teaching coordinator. The student teacher works and plans with the supervising teacher, taking over various responsibilities as the supervising teacher feels that the student teacher is qualified to do so. Additional experiences beyond the classroom setting are planned at the discretion of the supervising teacher. Generally the student teacher spends most of his experience modeling after the one teacher in the one classroom setting.

The student teachers usually meet in a seminar in the respective buildings where they do their teaching, in a university center, or somewhere in the school district. The content of these meetings depends upon the needs of the student teachers and coordinators. These seminars are generally held weekly or bi-weekly.

The student teachers are generally selected to work with the supervising teacher by the coordinator on the basis of needs and concerns previously obtained from both individuals. They are paired in order to work cooperatively.

Cluster Program

The Cluster Program was developed for various reasons. The ultimate concern was to find a better method of bringing the public schools and the university together in a teacher education program. An additional option was desirable where student teachers were given experience outside the classroom and the opportunity was provided to observe more than one teacher model. The university and public schools were interested in providing increased in-service growth opportunities for a building staff and greater opportunity to institute new ideas and programs into the classroom; i.e., a specific problem of the school community could be analyzed. When considering the needs of a student teacher, the program would (1) attempt to provide contact with several experienced teachers and various teaching styles; (2) seek to provide many other school and community experiences for the student teacher in addition to working with the classroom teacher; and (3) provide greater flexibility for the student teacher so that strengths and weaknesses of the individual teacher would determine the specific program each would follow.[6] In addition to the coordinator of the program or the director of the student teaching center, a "clinical

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[6]Charles Jackson, "Proposal for Implementing a Cluster Program," Student Teaching Office, Michigan State University, November 12, 1969. (Mimeographed.)

consultant" directs each cluster which contains from ten to thirteen student teachers per term. The clinical consultant might meet with the student teachers almost on a daily basis to discuss various problems or concerns that may arise, and also assist the student teachers in exposure to other facets of the total school and community program. He communicates directly with the school faculty, building and central administrators, and university faculty.

The administrators, faculty, and clinical consultant are involved together in the selection of prospective student teachers. The student teachers are actually assigned to the total building rather than to a specific supervising teacher. Still a base (supervising) teacher may be designated to work with a specific student teacher to provide some in-class teaching experiences, some supervision, and some laboratory experience in the total school.

Three previous studies concerned with the Conventional and Cluster Programs provide insight into the problem of this study and further need for a study of this type. McLevie,[7] in analyzing nine demographic variables (sex, class, status, etc.) found there was no large difference in the Cluster or Conventional type of

[7]John G. McLevie, "An Examination of Teaching Concerns Reported by Secondary Student Teachers" (unpublished Doctor's dissertation, Michigan State University, 1970).

placement. Chase[8] studied the Conventional Program and the SERL Project (Secondary Education Residency Lansing), a program with some elements similar to the Cluster Program, and found that student teachers in the SERL Project reflected a greater positive change in attitudes and openness to experience in comparison to the student teachers in the Conventional Program. He recommended further evaluation of these models of student teaching, incorporating additional variables and doing the research in other Michigan State University regional student teaching centers. Price[9] found a higher gain score on attitude change of student teachers in the Cluster Program than attitude change of student teachers in the Conventional Program, but there was no significant difference between student teachers in the Cluster and Conventional Programs.

Purpose of the Study

The purpose of the study was to compare the Michigan State University Conventional Program of student teaching with the Cluster Program regarding personality

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[8]Donald J. Chase, "A Comparative Study of the Co-operative Michigan State University-Lansing SERL Project and the Conventional Program of Student Teaching with Reference to Openness and Attitude Formation" (unpublished Doctor's dissertation, Michigan State University, 1971).

[9]William J. Price, "A Study of the Effects of the Student Teaching Experience and the Student Teaching Assignment Upon the Educational Attitudes of Secondary Student Teachers at Michigan State University" (unpublished Doctor's dissertation, Michigan State University, 1971).

traits or stereotypic beliefs as measured by the Inventory of Beliefs and attitude formation as measured by the Minnesota Teacher Attitude Inventory. These two variables were used to answer the following questions about the effectiveness of the Cluster Program in relation to the Conventional Program: (1) Do student teachers in the Cluster Program show a higher gain score as measured by the Minnesota Teacher Attitude Inventory, which reflects attitudes toward pupils and teaching as a profession, than student teachers in the Conventional Program? (2) Do student teachers in the Cluster Program show a higher gain score as measured by the Inventory of Beliefs, which reflects beliefs which are adaptive, flexible, and democratic toward people, than student teachers in the Conventional Program? This was a comparative study in which student teachers in the Cluster and Conventional Programs at the Michigan State University-Saginaw Student Teaching Center were given a pre-test during the first week of student teaching and a post-test during the tenth week.

Hypotheses

The following hypotheses were tested in this study:

1. Following their laboratory experience, the student teachers in the Cluster Program will not show a higher gain score as measured by the Inventory of Beliefs (Personality Traits or Stereotypic Beliefs) than student teachers in the Conventional Program.

2. Following their laboratory experience, the student teachers in the Cluster Program will not show a higher gain score as measured by the Minnesota

Teacher Attitude Inventory than student teachers in the Conventional Program.

3. There will not be a difference between the gain scores of the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory in the Cluster and Conventional Programs.

4. Sex differences will not have an effect on gain scores for Personality Traits or Stereotypic Beliefs as measured by the Inventory of Beliefs and attitudes as measured by the Minnesota Teacher Attitude Inventory in both the Cluster and Conventional Programs.

5. Grade-point averages will not have an effect on gain scores for Personality Traits or Stereotypic Beliefs as measured by the Inventory of Beliefs and attitudes as measured by the Minnesota Teacher Attitude Inventory in both the Cluster and Conventional Programs.

Definition of Terms Used in the Study

Student Teacher.--A prospective teacher who is involved in the teacher education program of Michigan State University on a full-time ten-week basis and is engaged in his laboratory experience phase in a selected school setting.

Supervising Teacher.--A full-time teacher employed in a public school system and selected to work directly with the student teacher in the classroom.

Student Teaching Coordinator.--A member of the Michigan State University faculty who regularly visits and observes student teachers. He usually has additional responsibilities for on-campus and off-campus seminars or college courses. The coordinator of a Cluster Program also

devotes a significant amount of time to in-service activities with the clinical consultants.

Clinical Consultant.--A teacher employed jointly by the local school system and the university, who devotes half-time in a school building to the Cluster Program and half-time to the regular public school program. This person is responsible for student teaching assignments in the building, instruction to student teachers on such matters as lesson planning, coordination of cluster activities, and leadership in counseling, evaluation, and feedback.

Cluster Program.--A Michigan State University student teaching program in which a group of student teachers (ten to thirteen) works with a number of supervising teachers under the direction of a clinical consultant in a public school system.

Conventional Program.--A Michigan State University student teaching program in which the student teachers are assigned to supervising teachers in a public school system on a one-to-one basis.

Personality Traits or Stereotypic Beliefs.--An index of personality structure in terms of the individual's relation to (1) ideas and intellectual abstractions, (2) social groups and identifications, (3) interpersonal

relations, and (4) the self.[10] These levels of personal involvement are indications of the kind of psychological maturity the individual possesses; for example, a person who is mature, flexible, adaptive, and democratic in his relationships with others versus a person who is immature, rigid in outlook, compulsive, and authoritarian in his relationships with others.[11]

Attitude Formation.--The specific mental disposition toward an incoming or arising experience whereby that experience is modified, or a condition for a certain type of activity.[12] The modifications of experiences are the result of the interaction of the multitude of factors such as academic and social intelligence, general knowledge and abilities, social skills, personality traits, and energy, and such modifications of experiences afford a key to the prediction of the type of social atmosphere a teacher will maintain in the classroom.[13]

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[10]Paul L. Dressel and Lewis B. Mayhew, General Education: Explorations in Evaluation (Washington, D.C.: American Council on Education, 1954), p. 216.

[11]Irvin J. Lehmann and Paul L. Dressel, "Changes in Critical Thinking, Attitudes, and Values Associated with College Attendance" (Michigan State University, Cooperative Research Project No. 1646, Office of Education, HEW, 1963), p. 27. (Mimeographed.)

[12]H. C. Warren, ed., Dictionary of Psychology (Boston: Houghton Mifflin, 1934), p. 24.

[13]Walter W. Cook, C. H. Leeds, and R. Callis, The Minnesota Teacher Attitude Inventory (New York: The Psychological Corporation, 1951), pp. 3-4.

Scope of the Study

The population included in this study consisted of Michigan State University student teachers in the Cluster Program and the Conventional Program in the Saginaw area. All the student teachers in the middle and secondary schools were chosen to comprise the sample of that student teaching center. The number of student teachers in the Cluster and Conventional Programs were close enough to obtain an equivalent sample in the center. An additional number of student teachers in the Cluster and Conventional Programs could have been obtained in other Michigan State University student teaching centers, but this would have introduced extraneous variables between centers, such as coordinator and clinical consultant procedures and types of schools. Eighteen Cluster participants and sixteen Conventional student teachers were assigned to Saginaw, grades five through twelve, during spring term.

Limitations of the Study

The following factors were considered in analyzing the data:

1. The student teachers were taken from one institution, a large state university, selected for this study. Thus the students might represent a broad, but not complete, cross-section of American secondary student teachers.

2. The population of this study was limited to student teachers teaching in secondary school subjects, grades five through twelve.

3. The student teachers selected for the study were teaching in the middle schools, junior high schools, and senior high schools in the Saginaw area.

4. The schools were located in suburban and urban areas, but both types of neighborhoods were represented in both the Cluster and Conventional Programs.

5. The student teachers volunteered for either the Cluster Program or the Conventional Program, but in the final placement a fewer number were selected for the Conventional Program.

Overview

Chapter I presents the need and purpose of this study. The descriptions of Cluster and Conventional Programs are given. Hypotheses are stated, specific terms are defined, the scope of the study is delineated, and limitations of the study are stated. The chapter closes with the overview of the study.

Chapter II reviews selected literature on stereotypic beliefs or personality traits and attitude formation and their implications for teacher education.

Chapter III describes the design of the study, reporting on the population and testing instruments selected. Data relative to the validation of the instruments are presented.

Chapter IV is devoted to the presentation of the data. Statistical tests of the hypotheses are made, and the results are analyzed.

Chapter V consists of a summary of the study followed by a discussion of the findings and recommendations for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Methodology

Among the impressive number of studies on teacher effectiveness, it is difficult to draw upon any specific characteristics of teachers and their behaviors in the classroom. One might look at a number of factors that make up teacher behavior and gain a good perception of teaching. One theory may emphasize relationships between people, and another may stress the place of learning in the development of behavior. It was the purpose of this investigation to select two of the more important and accepted variables as indicators of success in the development of teaching behavior.

Attitude formation has been recognized as a significant variable by Horowitz,[1] Jacobs,[2]

[1]Myer Horowitz, "Student Teaching Experiences and Attitudes of Student Teachers," The Journal of Teacher Education (Fall, 1968), 317-24.

[2]Elmer B. Jacobs, "Attitude Change in Teacher Education: An Inquiry into the Role of Attitudes in Changing Teacher Behavior," The Journal of Teacher Education (Winter, 1968), 410-15.

Inglis,[3] and Elwell.[4] Their studies of student teachers make cases for attitude as an important condition in perception. Henjum,[5] Hinely,[6] Aden,[7] Hollander,[8] Ryans,[9] and Adorno[10] support the concept of personality traits or stereotypic beliefs as an essential condition of successful teaching. These studies led to the selection of the variables of attitude formation and the development of

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[3]John D. Inglis, "The Effect of a Professional Laboratory Experience on the Attitudes of Student Teachers Toward Children and Teaching" (unpublished Doctor's dissertation, University of Toledo, 1969).

[4]Albert R. Elwell, "Attitude Change as a Function of Differential Student Teaching Placement" (unpublished Doctor's dissertation, Michigan State University, 1964).

[5]Arnold Henjum, "A Study of the Significance of Student Teachers' Personality Characteristics," The Journal of Teacher Education (Summer, 1969), 143-47.

[6]Reginald Hinely, "An Exploratory Study of Teaching Styles Among Student Teachers," Journal of Experimental Education (Winter, 1966), 30-35.

[7]Robert C. Aden, "Teaching Field Choice and Student Teacher Personality," Journal of Educational Research (March, 1966), 291-93.

[8]Melvyn A. Hollander, "Occupational Stereotypes and Needs: Their Relationship to Vocational Choice." Vocational Guidance Quarterly (December, 1969), 91-98.

[9]David Ryans, Characteristics of Teachers: Their Description, Comparison, and Appraisal (Washington, D.C.: American Council on Education, 1960).

[10]T. W. Adorno, The Authoritarian Personality (New York: Harper and Row, Publishers, 1950).

personality traits as the focus of evaluation for this investigation.

The Nature and Function of Attitudes

As a result of individuals having a diversity of experiences, they possess different expectations and behave in different ways as they interact with various groups in society. "It is only from behavior that we can infer that an individual has an attitude."[11] In other words, attitudes are expressed visibly in forms of behavior such as actions, comments, facial expressions, or tones of voice.

The concepts of beliefs, opinions, and attitudes are used with little clarity as to their meaning. Berelson and Steiner[12] state that "opinions and attitudes are presumably adapted to beliefs, which are deep-seated, but are more consciously cognitive in their content and are amenable to change." Rokeach[13] elaborates, "Beliefs have only a cognitive component while attitudes have both

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[11]Carolyn W. Sherif, Muzafer Sherif, and Roger E. Nebergall, Attitudes and Attitude Change: The Social Judgment-Involvement Approach (Philadelphia: W. B. Saunders Company, 1965), p. 6.

[12]Bernard Berelson and Gary A. Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace, and World, 1964), p. 558.

[13]Milton Rokeach, Beliefs, Attitudes and Values: A Theory of Organization and Change (San Francisco: Jossey-Bass, 1968), p. 115.

cognitive and affective components." Their reference to a belief system implies a value system which is quite deep-seated and difficult to uproot. Therefore, attitudes have both emotional and motivational aspects which are inseparable from cognitive content.[14] Bem[15] concludes that attitudes and beliefs are the result of cognitive, emotional, behavioral, and social foundations. Expressing an attitude refers directly to taking a stand as either an emotional, cognitive, behavioral, or social foundation of what a person cherishes about objects, issues, persons, groups, or institutions.[16] The formation of an attitude means a person is no longer neutral but is for or against, positively or negatively inclined in a lasting way. In summary, attitudes are inferred from characteristic and consistent modes of behavior toward some objects, persons, events, and issues over a time span.[17]

Since people's behavior toward one another is the essence of society, there has been a growing need to look at the function of attitudes in society. Various theories have been expounded as to the function of attitudes. Those individuals involved in the study of personality and

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[14] Ibid., p. 116.

[15] Daryl J. Bem, Beliefs, Attitudes, and Human Affairs (Belmont, Calif.: Brooks/Cole Publishing Company, 1970), p. 2.

[16] Ibid.

[17] Sherif, loc. cit.

culture and in sociology emphasize the adjustive function of attitudes--the adjustment of primitive and modern man to their specific cultures and subcultures.[18] Katz summarizes the four positive functions that attitudes serve:

1. The instrumental, adjustive, or utilitarian function upon which Jeremy Bentham and the utilitarians constructed their model of man. A modern expression of this approach can be found in behavioristic learning theory.
2. The ego-defensive function in which the person protects himself from acknowledging the basic truths about himself or the harsh realities in his external world. Freudian psychology and neo-Freudian thinking have been preoccupied with this type of motivation and its outcomes.
3. The value-expressive function in which the individual derives satisfactions from expressing attitudes appropriate to his personal values and to his concept of himself. This function is central to doctrines of ego psychology which stress the importance of self-expression, self-development, and self-realization.
4. The knowledge function based upon the individual's need to give adequate structure to his universe. The search for meaning, the need to understand, the trend toward better organization of perceptions and beliefs to provide clarity and consistency for the individual, are other descriptions of this function. The development of principles about perceptual and cognitive structure has been the contribution of Gestalt psychology.[19]

These functions are considered as operating together instead of as isolated from one another. The formation of an attitude at one moment might possibly serve all four functions.

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[18] Rokeach, op. cit., p. 129.

[19] D. Katz, "The Functional Approach to the Study of Attitudes," Public Opinion Quarterly (1960), 170.

Attitude Change

The change of an attitude is not only a shift in an event or an item of a person's make-up; it means changing him as a person, a part of himself as he seems in the social world he lives in. Sherif states:

> To the extent that the individual's attitude is intimately reflected to his self picture, the confrontation of views, events, or situations discrepant from his attitudes arouses uncertainty, disturbance, instability, puzzlement, inner conflict or "dissonance," or some other form of experienced tension.[20]

The amount of involvement and personal commitment on an issue or communication may be determined by comparing the change or movement on the position. Sherif[21] assumes that if an individual experiences a discrepancy from a communication, and whether or not a perceived discrepancy arouses personal tension, imbalance, or dissonance depends upon the position of the communication relative to his latitudes of acceptance, rejection, and non-commitment. The position then taken seems to depend upon the subject's stand in relation to the stand represented in a communication.

In the nature of changing attitudes it is important to look at the individuals attempting to make change and at the credibility of the person influencing the change in relation to the direction of change. Cohen states:

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[20] Sherif, op. cit., p. 21.

[21] Ibid., p. 14.

> Who says something is as important as what is said in understanding the effect of a communication on an attitude. . . . Many attitudes can underlie the effects: affection and admiration of the communicator, fear and awe of him, trust and confidence in his sincerity, fairness, and credibility.[22]

One should look at the perception of the communicator to judge any change in attitudes since the amount of change of attitude or shifting of attitude varies with the individual. Hovland[23] found that under certain conditions where there is some ambiguity about the credibility of the communicator, the greater the attempt at change, the higher the resistance; but with respected communicators, the greater the discrepancy between the subjects' position and the one advocated, the greater the change. Thus, highly credible sources seem to be more effective in bringing about change.

Other references in the literature provide further predictions in relation to the communicator. Two opposite views are reflected in regard to the credibility of a person. "The more negative, incredible, or disliked the communicator is, the more will persons change toward his position when they have committed themselves to exposure

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[22]Arthur R. Cohen, Attitude Change and Social Influence (New York: Basic Books, Inc., 1964), p. 23.

[23]C. I. Hovland, "Reconciling Conflicting Results Derived from Experimental and Survey Studies of Attitude Change," American Psychologist (1959), 17.

to it. . . ."[24] However, other research states, "A highly credible communicator can arouse greater dissonance and hence induce greater opinion change than a less credible one when communication is discrepant."[25] Singer[26] also emphasizes the position of the individual in a study which found that the experimenter who was saying "good" or "right," depending upon whether the subject agreed or disagreed with the statements reflecting authoritarian attitudes, was effective in shifting subjects to a different position on a scale of attitude designed to measure those authoritarian attitudes. The concept of credibility then refers not directly to actual attributes of a person but strictly to the perceived judgment of the listener, which may account for the discrepancy in research determinations.

Another important source of approval or disapproval which affects attitude change is the social group to which one belongs. The typical form of the context for

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[24]Jack W. Brehm and Arthur R. Cohen, Explorations in Cognitive Dissonance (New York: John Wiley and Sons, Inc., 1962), p. 111.

[25]Elliott Aronson, Judith A. Turner, and J. Merril Carlsmith, "Communicator Credibility and Communicator Discrepancy as Determinants of Opinion Change," Journal of Abnormal and Social Psychology (1963), 33.

[26]R. D. Singer, "Verbal Conditioning and Generalization of Pro-democratic Responses," Journal of Abnormal and Social Psychology (1961), 43-46.

attitude formation and change is the human group: the family group, the gang of peers, the club, the party organization, the church group, the business or occupational group, the community group.[27] Sherif reflects upon the influence of groups on attitude change as individuals operate within a group framework:

> The properties of groups, compared with other more transitory forms of human association, are created by individuals acting in concert over a period of time. Thus, individuals are parts of the group patterns and are also affected by these patterns and by their particular places in them. Among the minimum properties of any human group are the following:
>
> There are common problems, reflected in the motivations of the individuals, which are conducive to prolonged interaction among them.
>
> The members develop and adopt a variety of practices, customs, traditions, and definitions that mark off latitudes for acceptable attitudes and behavior and for objectionable attitudes and behavior among members in various matters of consequence to the group.
>
> The stability of a person's attitude, his involvement in a stand, and his susceptibility to change are related to the norms and to his position (status and role) in groups with whom he shares self-identification, or with whom he devoutly wishes to share.[28]

Individuals rely heavily upon the group for support or as a stabilizing reference point to provide for change in attitudes. "Members of a group resist communications that run counter to the norms and values of the group and accept the sanctional attitudes of it."[29] From the

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[27]Sherif, op. cit., p. 205.

[28]Ibid., p. 206.

[29]Cohen, op. cit., p. 40.

individual's point of view, "recognition of the need to validate one's beliefs and to see oneself and one's world through the eyes of others provides a basis for understanding the pervasive effect of social interaction on a person's attitudes."[30] Festinger,[31] concerned with attitude change through social influence, concludes that individuals use objective, non-social means to evaluate their opinions and attitudes, but where these are not available they evaluate them by comparison with others. Thus, the primary factors influencing change in attitudes are the perceived credibility of the source of communication and the supporting groups to which the individual belongs.

Implications for Teacher Education and Student Teaching

The role in which the student teacher perceives himself may depend upon the individuals with whom he comes in direct contact during the field experience. The attitudes held by students in the school about teachers and the administration may influence any change in the behavior of the student teacher. The student teacher has the alternative to change his attitudes or the attitudes of the institution where he is assigned for his experience.

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[30] Ibid., p. 105.

[31] Leon Festinger, "A Theory of Social Comparison Process," Human Relations (1954), 117-40.

Since he is only there for a short period of time, it is unlikely that the latter will actually occur. Also he is considered to be an outsider by the established institutional organization. As an outsider he is expected to conform to the policies of the institution, and his influencing any change then would be rather minor.

Shaplin states his perception of the role of the student teacher:

> Teaching is behavior, and as behavior is subject to analysis, change, and improvement. The purpose of practice, as with all aspects in the training of teachers, is to take the novice where he is (at induction) and work toward improved teacher behavior. . . .
>
> Much of the habitual behavior which individuals have developed in other contexts is inappropriate for the teaching situation, since most individuals have developed consistent ways of behavior in a variety of roles, such as a member of the family, as students . . .
>
> Basic attitudes and orientations toward people developed in these contexts are frequently in direct conflict with the specialized role expectations to be developed in teaching. . . .
>
> The assumption is made that practice conditions provide the kind of analysis of teaching which will enable the (student) teacher to learn to control his behavior.[32]

This attitude strongly places the position of influence or change of attitude with the teacher preparation institution and the public schools. Then the dissonance that occurs in a student teacher's experience may be reduced through contact with individuals in the school whom he judges to be of some credibility. The

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[32]J. T. Shaplin, "Practice in Teaching," The Harvard Educational Review (Winter, 1961), 33-59.

direction of the attitude change will depend upon the individuals of credibility, usually including the student teacher's supervising teacher. The additional variable of attitude change may depend upon the various groups of influence: the students in the public schools, the teaching staff or department staff, and the student teacher group itself. A student teacher group having an opportunity to meet quite regularly in a seminar format during student teaching where student needs and concerns are discussed could provide a supportive base that may run somewhat counter to the institutional norms. This would allow student teachers to provide some input into their program. In this manner the student teacher has the experience in which he may apply his previously formed attitudes and perceptions about teaching. Still, if his expectations are not consonant with those perceptions he encounters in his experience, then he will most likely change his attitudes toward teaching.

The climate which the student teacher establishes in the classroom environment influences his ability to function effectively as a teacher. This is established through the frame of attitudes as he perceives himself and others operating in the living-and-learning environment. The limitation or adequacy of the change in attitudes toward teaching both through an individual and group perception greatly influences the development of the

student teacher. A student teacher who works well with people is able to establish satisfactory rapport with pupils, staff, and parents, and this rapport is closely related to the student teacher's ability to establish classroom climate and manage instruction.[33] The role of the student teacher is viewed by most teacher educators as a creation of a sound and secure environment of learning where the attitudes of the student teacher are consonant with the school as a traditional institution. Jacobs[34] questions this view in a study in which he compared students in initial education courses with students undergoing their student teaching experience. He found significant changes in attitudes for both groups, however in opposite directions. The students in initial education courses moved toward more liberal views while the student teachers moved toward more rigid and formalized attitudes. Jacobs concludes that "alternate programs to counteract the reversal of attitudes in student teaching should be considered."[35] He also states:

> It should be the purpose of a teacher education program to mold attitudes that will equip the prospective teacher to deal with the teaching role in a way that will bring the greatest benefit to his

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[33] W. V. Hicks and F. H. Blackington, Introduction to Education (Columbus, Ohio: Charles E. Merrill Books, Inc., 1965), pp. 38-56.

[34] Jacobs, op. cit., p. 411.

[35] Ibid., p. 415.

students in terms of their individual growth toward living in a free and democratic society.[36]

These statements include not only the viewpoints of the teacher preparation institution and the public school system but also the views of the student teachers as a group since their needs and concerns must be included and can be utilized in developing alternative programs in teacher preparation.

A number of studies of student teacher attitude change have dealt with the influence of credible individuals or groups in various environmental settings. Horowitz[37] found that supervising teachers were not influential in bringing about changes in attitude toward teaching on the part of the student teacher. Popham[38] found there was a significant difference in changed behavior for student teachers who completed a planned, preferred program over those who did not. Inglis,[39] who was concerned with attitude change of student teachers due to environmental conditions, found that inner city student teachers who chose their experience had more positive

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[36] Ibid., p. 410.

[37] Horowitz, op. cit., p. 324.

[38] James W. Popham, "An Experimental Attempt to Modify the Instructional Behavior of Student Teachers," The Journal of Teacher Education (December, 1965), 461-65.

[39] Inglis, op. cit., pp. 16-17.

professional attitudes toward teaching while those student teachers in a suburban, team teaching situation had less positive attitudes. Elwell[40] found a differential change in attitudes of student teachers after an extended exposure to children who were culturally different from themselves; thus, he concluded that the exposure time was critical. These studies indicate the multiplicity of factors which may affect student teachers' changes in attitude.

Personality and Personality Traits

How a person perceives the concept of his personality is a reflection of his experiences and what he has become as a person. While each individual has a perception of himself, others also hold unique views of his personality. Guilford[41] sees a clear distinction in three quite different perceptions: the person as he really is and as we want to know him, the person as he sees himself, and the person as others see him. None of these views really project the true person. Thus, the source of the impersonal or objective view drawn through psychological testing and other techniques can only provide an approximation of the aspect of personality. Allport states that personality is:

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[40]Elwell, op. cit., pp. 25-27.

[41]J. P. Guilford, Personality (New York: McGraw-Hill Book Company, 1959), p. 56.

> . . . the sum-total of the effect made by an individual upon society, habits or actions which successfully influence other people, responses made by others to the individual as a stimulus, and what others think of him.[42]

Each individual has a unique personality. Individuals are similar in some respects but considering the whole pattern of characteristics, each is different from the others. The real key to personality lies in the individual differences, the personality traits. The perceptions of a person's role may be obtained by referring to a list of acceptable personality traits. This becomes a means for individuals to see how they differ from others. Allport[43] states that a trait is a dimension or aspect of personality, consisting of a group of consistent and related reactions that characterize a person's typical adjustments. He also lists eight characteristics of personality traits:

1. A trait has more than nominal existence.
2. A trait is more generalized than a habit.
3. A trait is dynamic.
4. The existence of a trait may be established empirically or statistically.
5. Traits are only relatively independent of each other.
6. A trait of personality, psychologically considered, has nothing to do with moral quality.
7. Acts or even habits which are inconsistent with a trait are not proof of the non-existence of the trait.

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[42] G. W. Allport, Pattern and Growth in Personality (New York: Holt, Rinehart, and Winston, 1961), p. 23.

[43] Ibid., p. 335.

8. A trait may be viewed either in the light of the personality which contains it, or in the light of its distribution in the population at large.[44]

Adorno provides justification for the use of personality traits. He states:

> There is reason to look for psychological types because the world in which we live is typed and "produces" different "types" of persons, so only by identifying stereotypic traits in modern humans, and not by denying their existence, can the pernicious tendency toward an all-pervasive classification and subsumption be challenged.[45]

The construction of psychological types does not merely imply an arbitrary, compulsive attempt to bring some "order" into the confusing diversity of human personality but represents a means of "conceptualizing" this diversity, according to its own structure, and of achieving closer understanding.[46] Bem[47] states that stereotypes are over-generalized beliefs based on too limited a set of experiences, but individuals rely upon them to some extent for "packaging" their perceptual and conceptual worlds.

The actual indicators of the traits exhibited depend upon the behavior of the person. A person's behavior can be reflected by various cues. The cues may

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[44]G. W. Allport, "What Is a Trait of Personality?" International Congress of Psychology (1931), 57.

[45]Adorno, op. cit., p. 747.

[46]Ibid., p. 748.

[47]Bem, op. cit., p. 10.

be more an individual thing, what the person does or what he likes to do, or mostly motivational, i.e., in the form of needs, interests, and attitudes, how well the person does things, or the manner in which he does things.[48]

Other types of cues may come from the group in which a person holds membership. Since an individual usually participates in a number of groups, his traits are related to a variety of group responses. Any change in a personality trait depends greatly upon the individuals and groups of close contact. The individuals of a group would tend to support those traits held by the group. The members of a group tend to be of a somewhat stereotyped pattern of personality and thus select new members of the group which perpetuate the stereotype.[49] Schettler[50] also states that the groups to which a person may belong are sometimes sharply conflicting in their demands, and a given personality trait that may be assumed to be social may be traced to group experience in another or in a prior group wholly foreign to the association in which the personality is found at a given moment. Common traits are

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[48]J. P. Guilford, op. cit., p. 54.

[49]Joan S. Guilford, "Isolation and Description of Occupational Stereotypes," Occupational Psychology (1967), p. 55.

[50]Clarence H. Schettler, Problems of Personality Traits, with the Problem of Mutability (Chicago: University of Chicago Library, 1940), p. 106.

those aspects of personality in respect to which most people in a given culture can be compared, e.g., talkativeness, radicalism, money-mindedness, seclusion, anxiety, need for achievement, and race prejudice.[51]

Various positions have been taken in regard to the utilization of personality traits in research. Allport reflects upon two theoretical views:

1. Traits are only convenient names given to types or qualities of behavior which have elements in common, not psychological entities but rather categories for the classification of habits (Bi-social).
2. A trait is a constant psychic force which determines the active and reactive behavior of the individual (Bio-physical). . . .[52]

The use of personality traits in general research has resulted in numerous studies which show individuals as well-established and successful within their respective occupations. Guilford[53] found that in comparing the occupational stereotypes of life insurance salesmen, clergymen, physicists, engineers, and journalists, the patterns of the personal characteristics of members of the divergent occupational groups fitted the stereotypes of the group members and conformed exceedingly well to

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[51]Allport, Pattern and Growth in Personality, p. 340.

[52]G. W. Allport, Personality: A Psychological Interpretation (New York: Holt and Company, 1937), p. 287.

[53]Joan S. Guilford, op. cit., p. 63.

stereotypes hypothesized on good references. Two relevant studies dealt with specific personality types of the ministry and medical doctors. Nauss[54] found that the ministerial students at Concordia College registered a preference for extroverted, socially aggressive, and generally intuitive among a wide range of existing personalities. Marsh[55] found that the medical residents tended to perceive themselves as characteristic of a stereotype of a responsible, emotionally stable, and self-assertive individual. These characteristics tend to reflect the images portrayed by the general public as they perceive the various occupational roles.

Implications for Teacher Education

The teacher adapts himself to a style of teaching that is harmonious with his expressions to life situations. The methods and various procedures he has adapted during his preparation in college may in some way reflect his teaching on a superficial level, but they do not determine the nature of the relation of a teacher to his pupils or the basic attitude toward teaching. For the teacher this

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[54]Allen H. Nauss, "The Ministerial Personality: On Avoiding a Stereotype Trap," Journal of Counseling Psychology (1968), 582.

[55]Gayle G. Marsh, "Personality Stereotypes of U.S. and Foreign Medical Residents," Journal of Social Psychology (1966), 196.

to be his perception or expression of his personality. This reflects the importance in looking at the patterns of personal make-up not only for a teacher as he and others perceive him but also for individuals who work directly with children in any capacity. Combs would perceive the personality of a teacher as becoming a fully functioning person, a total person. What a person becomes is a result of social environment and his physical-psychological make-up. Combs[56] is concerned with an emphasis upon a more personal approach toward the teacher in which he considers five general points of reference by which a good teacher should be characterized: his knowledge of his subject, his frame of reference for approaching his problem, his perceptions of self, his perceptions of the purpose and process of learning, and his perceptions of appropriate methods. Kelley[57] also stresses the total personality when he states, "The 3 R's are skills which facilitate living in our present society, but we should not teach them so insistently and so aggressively that we diminish the individual's ability to grow toward humanness." Perceptions are influenced by several factors including needs, values, threats, physiological state, opportunity, and beliefs about

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[56]Arthur W. Combs, "A Personal Approach to Good Teaching," Educational Leadership (March, 1964), 374.

[57]Earl Kelley, In Defense of Youth (New Jersey: Prentice-Hall, Inc., 1962), p. 136.

self and other people. The most important of these in forming an individual's perception, and consequently his behavior, are his self-concepts and the beliefs he has about other people.[58]

The view of a student teacher's personality is formed as he perceives himself and how relevant learning experiences have been for him. His personality make-up is also perceived by others and thus is strongly influenced by various supportive groups. The student is in the position of deciding the role in which he wants to place himself as a teacher and as a person. He must decide the traits of a teacher he wants to portray as he begins his teaching career. If he works in the classroom modeling after one teacher, he is most apt to acquire the traits he perceives in his supervising teacher. If he operates in a cluster or team where he is exposed to a number of teachers, he may gain a variety of perspectives of teaching. His traits may vary depending upon the groups with which he is in direct contact or that group which is more supportive of his philosophy; e.g., the staff of the school, the students in the schools, or the student teachers themselves. Thus, the student teacher's perception of his role would be influenced by a number of variables: the exposure to teacher

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[58]Robert E. Bills, "About People and Teaching," Bureau of School Service, College of Education, University of Kentucky, XXVIII, No. 2 (December, 1955), 24.

models, the school philosophy and how the administration and staff carry it out, his previous experiences or exposure to schools and children, and his view of others and himself.

Various studies project views of the characteristics apparent in the personalities of teachers and prospective teachers. In his research Ryans states:

> There is a need for accumulation of evidence permitting extension of understanding of the personal, social, and intellectual attributes of persons who teach in the schools . . . and also a need for procedures for appraising certain characteristics of prospective teachers before or during pre-service training and at the time of employment by school systems to help improve teacher selection and assignment.[59]

In the analysis of personality patterns of teachers Ryans utilized three behavior patterns of teachers: X_o = warm, understanding, friendly, egocentric, restricted teacher behavior; Y_o = responsible, businesslike, systematic, unplanned, slip-shod teacher behavior; and Z_o = stimulating, imaginative, surgent, routine teacher behavior.[60] He found that the patterns were less highly correlated with pupil behavior in regard to secondary teachers as compared with elementary teachers. Also the secondary women teachers varied in subject areas in that the English teachers received the highest mean assessments on pattern X_o, mathematics teachers scored high on pattern

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[59] Ryans, op. cit., p. 9.

[60] Ibid., pp. 353-55.

Y_o, and social studies teachers surpassed all other groups on pattern Z_o.[61] This reflects the differences in personality traits as perceived by teachers in various content areas.

Getzels and Jackson[62] reviewed and compared a number of studies concerned with teacher personality characteristics. In comparing the significant points of agreement between Clark's description of in-service teachers and Gowan's description of teachers-in-training, both groups were above average in objectivity, agreeableness, cooperativeness, and emotional stability.[63] However, the in-service teachers were less ascendant than the teachers-in-training, possessing fewer leadership traits and tending toward submissiveness rather than being self-defensive.[64] In looking at teacher styles as perceived by student teachers, Hinely[65] found that styles of student teachers were systematic, humanistic, and creative. Aden[66] compared the different teaching fields with six

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[61] *Ibid.*

[62] J. W. Getzels and P. W. Jackson, "The Teacher's Personality and Characteristics," Handbook of Research on Teaching, ed. by N. L. Gage (Chicago: Rand McNally & Co., 1963).

[63] *Ibid.*, p. 547. [64] *Ibid.*

[65] Hinely, *op. cit.*, p. 35.

[66] Aden, *op. cit.*, pp. 291-93.

personality traits: analytic thinking, sociability, emotional stability, confidence, personal relations, and home satisfaction. He found that the only significant difference was demonstrated in emotional stability.

Additional studies reflect different personality traits across grade levels and provide some insight into selection procedures. Southworth[67] compared the difference in personality traits of elementary teaching majors from the early grades in relation to those from the later grades. The teachers preparing for the early elementary grades revealed a more manifest need for abasement, affiliation, succorance, and nurturance while the later elementary majors revealed higher manifest need for achievement, aggression, and exhibition. Henjum[68] investigated certain personality characteristics of student teachers and their success during their student teaching experience and found that those teachers who were socially well-adjusted, participating, and of imaginative personality patterns (emotionally mature, experimenting, and somewhat extroverted) should be selected for junior high

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[67]Horton Coe Southworth, "A Study of Certain Personality and Value Differences in Teacher Education Majors Preferring Early and Later Elementary Teaching Levels" (unpublished Doctor's dissertation, Michigan State University, 1962), pp. 60-62.

[68]Henjum, op. cit., pp. 146-47.

school teaching positions. In a study by Hollander[69] on the stereotype patterns of engineers, physicists, teachers, accountants, business executives, and artists, he assumed that teachers would have a need configuration for high affiliation, high exhibition, and high nurturance, but found that the only variable of significance was high affiliation. It was also interesting to note that of the six occupations the teacher appeared to be the most productive of emotional response.

Thus, personality traits have become an acceptable means for typing individuals. Allport concludes:

> Common traits are empirically established whenever personality tests (or other indicators) prove to be reliable, showing that people respond consistently over a period of time and with characteristic intensity and thus hundreds of common traits have been established in this way, most of them showing a normal distribution in the population at large. . . . Although common trait-names create many ambiguities and difficulties, we are compelled to use them in the analysis of personalities.[70]

Sex and Grade-Point Average as Variables

Sex and grade-point average differences are often considered as possible influences upon the results of studies of student teachers. However, the findings tend to indicate that they do not have a significant effect.

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[69]Hollander, op. cit., pp. 93-96.

[70]Allport, Pattern and Growth in Personality, p. 356.

Skeel[71] found that the grade-point averages of student teachers did not prove to be reliable predictors for determining success in working with culturally deprived children. Chase[72] found that sex differences did not have a significant effect on student teachers' attitude change in the SERL Program versus a Conventional Program. Price[73] found no significant differences in the attitudes of student teachers and the assignment of student teaching as related to sex. However, McLevie[74] found significant differences in the sex variable. More women made significantly higher gains during student teaching than men. These studies provide support for further evaluation of sex and grade-point average as variables.

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[71]Dorothy June Skeel, "Determining the Compatibility of Student Teachers for Culturally Deprived Schools by Means of a Cultural Attitude Inventory" (unpublished Doctor's dissertation, Pennsylvania State University, 1966).

[72]Donald J. Chase, "A Comparative Study of the Cooperative Michigan State University-Lansing SERL Project and the Conventional Program of Student Teaching with Reference to Openness and Attitude Formation" (unpublished Doctor's dissertation, Michigan State University, 1971).

[73]William J. Price, "A Study of the Effects of the Student Teaching Experience and the Student Teaching Assignment upon the Educational Attitudes of Secondary Student Teachers at Michigan State University" (unpublished Doctor's dissertation, Michigan State University, 1971).

[74]John G. McLevie, "An Examination of Teaching Concerns Reported by Secondary Student Teachers" (unpublished Doctor's dissertation, Michigan State University, 1970).

Summary

There are no specific characteristics of teachers that can be used to accurately predict success or effectiveness in the classroom. A variety of situations contribute to attitude formation and to the development of personality traits. All individuals possess attitudes, and since behavior is a visible expression of an attitude, a change in attitude should result in a modification of behavior. Also an individual possesses a certain personality pattern whose traits may change when exposed to various experiences and situations.

In reviewing the literature in regard to attitude formation and personality traits, one common factor can be noted. The groups to which an individual belongs are influential in forming and changing both his attitudes and his personality traits. The student teachers in both the Cluster and Conventional student teaching programs belong to a pertinent group; in the case of the former it is the Cluster group and the clinical consultant in the school while the Conventional Program consists primarily of a group of two--the student teacher and his supervising teacher. The student teaching coordinator provides a supportive base for both the student teacher and the clinical consultant, and he can also be a credible source of attitude change. A person perceived as a highly

credible individual in either the Cluster or the Conventional Program could influence a student teacher's change of attitude or personality traits. This is often the reason for the direct reference to a student teacher modeling his teaching behavior after his supervising teacher, even though this may be the only perception of a teacher the student teacher would have an extended opportunity to observe during his laboratory experience. In utilizing a group supportive base through a seminar format, the Cluster Program could influence changes in attitudes and personality traits. The clinical consultant and a number of supervisory base teachers could be conceived as highly credible individuals for a student teacher to emulate. The student teacher would have a number of models from which to select the traits and behaviors of a teacher he wishes to portray.

In reviewing the research using sex and grade-point average as variables, their effect upon change in attitudes was not significant in most studies.

CHAPTER III

DESIGN OF THE STUDY

The purpose of this chapter is to describe the methodology of the research and the data-gathering instruments, and to present data relative to the validation of the instruments.

Methodology

The population included in this study consisted of Michigan State University student teachers in the Cluster Program and the Conventional Program in the Saginaw area. All the student teachers in the middle schools and senior high schools were chosen to comprise the sample of that student teaching center. The number of student teachers in the Cluster and Conventional Programs were the best representation that could be obtained for an equivalent sample at the Michigan State University Student Teaching Center during spring term, 1971. Eighteen Cluster student teachers and sixteen Conventional student teachers were assigned to the Saginaw area, grades five through twelve, during spring term. There were three Clusters, two at

separate high schools and one at a middle school. It was felt that additional extraneous variables would be introduced by obtaining a cross sample of all the Michigan State University student teaching centers; therefore, the study was limited to only one center. Both the suburban and inner city type schools were represented in both groups.

This was a comparative study. The data were collected by means of (1) the Minnesota Teacher Attitude Inventory (MTAI), (2) the Inventory of Beliefs (Stereotypic Beliefs), Form I, and (3) the Personal Data Form.[1] Pre-test and post-test inventories were given to the student teachers in both the Cluster Program and the Conventional Program. The student teachers were given the MTAI, the Inventory of Beliefs, and the Personal Data Form the first week of student teaching. During the tenth week of student teaching, the MTAI and the Inventory of Beliefs were administered again to the student teachers.

At the time of the pre-test, explanations were given to the student teachers regarding the instruments to be used: the Minnesota Teacher Attitude Inventory and the Inventory of Beliefs. In order to maintain assurance that the tests were not to be used as a means of evaluation and to forestall any reason for "faking good," the instruments were administered by the researcher.

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[1]Appendices A, B, and C.

At the first meeting each student teacher was given two IBM answer sheets and the two instruments. The Personal Data Form was also completed by the student teacher at that time. For purposes of comparison of the pre-test and post-test of each student teacher, an identification number and a university student number were located on the IBM answer sheet. Also a four-digit number with a specific designation was located on the sheet. The pattern was: (a) the first digit number one or two for the pre-test or post-test; (b) the second digit number one or two for Cluster Program or Conventional Program; (c) the third digit number one or two for sex (male or female); and (d) the fourth digit number one, two, or three for Grade-Point Average (GPA)--one for Low GPA (2.00-2.84), two for Medium GPA (2.85-3.69), and three for High GPA (3.70-4.50).

Minnesota Teacher Attitude Inventory

The Minnesota Teacher Attitude Inventory (MTAI) is one of the most popular instruments for the measurement of teacher attitudes.[2] The MTAI was developed at the University of Minnesota by Cook, Leeds, and Callis. The manual, published in 1951, states:

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[2]J. W. Getzels and P. W. Jackson, "The Teacher's Personality and Characteristics," Handbook of Research on Teaching, ed. by N. L. Gage (Chicago: Rand McNally & Co., 1963), p. 508.

> 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 MTAI is designed to measure those attitudes of a teacher which will 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.[3]

The validity of the experimental forms and the final edition, Form A, is based on three assumptions:

1. Pupils' attitudes toward the teacher and their school work are a reflection of the attitudes of the teacher towards them and toward teaching procedures. There should be a positive relationship between the attitudes of teachers and their pupils.
2. A competent and experienced principal can detect the emotional relationship between teacher and pupil and can discriminate those who have good rapport with pupils and those with poor rapport.
3. Using objective measures, an expert in teacher-pupil relations can visit a classroom and reliably assess the social climate.[4]

In construction of items for the MTAI, canvassing of five areas of socio-educational literature about children was done to obtain an adequate sampling of attitudes. The five areas were:

1. Moral status of children in the opinion of adults, especially as concerns their adherence to adult-imposed standards, moral or otherwise. Example: "Children should be seen and not heard."
2. Discipline and problems of conduct in the classroom and elsewhere, and methods employed in dealing with such problems. Example: "Pupils found writing notes should be severely punished."

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[3] Walter W. Cook, C. H. Leeds, and R. Callis, The Minnesota Teacher Attitude Inventory (New York: The Psychological Corporation, 1951), p. 3.

[4] Ibid.

3. Principles of child development and behavior related to ability, achievement, learning, motivation, and personality development. Example: "The boastful child is usually overconfident of his ability."
4. Principles of education related to philosophy, curriculum, and administration. Example: "Pupils should be required to do more studying at home."
5. Personal reactions of the teacher, likes and dislikes, sources of irritation, etc. Example: "Without children life would be dull."[5]

Various criteria were used in selecting the items for the MTAI. In the selection of the 150 items used for Form A, six factors were considered: (1) the discriminating power of the item, (2) the extent to which the item responses are influenced by professional education courses, (3) the extent to which the item responses are influenced by teaching experience, (4) the extent to which the content of the item duplicates that of another item, (5) the clearness of the statement, and (6) the consistency of the response patterns of the superior and inferior teachers.[6]

Correlations have been drawn between the original study of Cook, Leeds, and Callis and follow-up studies to provide reliable and valid indicators. In further studies by Callis[7] the correlation of MTAI scores with the composite criterion was .46, and since the previous study

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[5] Ibid., p. 10.

[6] Ibid., p. 13.

[7] Robert Callis, "The Efficiency of the MTAI for Predicting Interpersonal Relationships in the Classroom," Journal of Applied Psychology (1953), 85.

by Leeds[8] indicated a correlation coefficient of .59, the instrument would appear to be a good predictor for the criterion of human relations in the classroom. Evidence of predictive validity of the MTAI is .60 with concurrent and predictive validity over a six-month period of .74 to .66.[9] Current studies have used the teacher's responses to the MTAI during the second or third year of teaching as a criterion. A further check of validity was undertaken by two studies in South Carolina and Missouri. In both cases validity and reliability correlated significantly with all other checks.[10] Studies by Gittler,[11] Munro,[12] and Popham and Baker[13] have also validated the significance of the MTAI.

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[8]C. H. Leeds, "A Second Validity Study of the MTAI," Elementary School Journal (1952), 403.

[9]Walter W. Cook, Cyril J. Hoyt, and Alf Erkaas, "Studies of Predictive Validity of the MTAI," The Journal of Teacher Education (June, 1956), 170.

[10]Getzels, op. cit., p. 510.

[11]Steven Gittler, "Professional Characteristics of Elementary School Teachers: Undergraduate Programs Versus Intensive Teacher Training Programs," The Journal of Teacher Education (December, 1963), 399-401.

[12]Barry S. Munro, "The MTAI as a Predictor of Teaching Success," Journal of Educational Research (November, 1964), 138-39.

[13]James W. Popham and Eva L. Baker, "Measuring Teachers' Attitudes Toward Behavioral Objectives," Journal of Educational Research (July-August, 1967), 453-55.

In using the MTAI with student teachers, Troisi[14] found a significant increase in MTAI scores during the student teaching experience. Sandgren and Schmidt[15] also found significant mean attitude change in the positive direction. In a study by Campbell,[16] the mean attitude scores on the MTAI for both the control and experimental groups decreased after student teaching. This tendency was supported by Dutton,[17] who conducted a pre-test and post-test of the MTAI and found that 78 per cent of the student teachers tested changed in a negative direction toward youth. Day[18] also found that mean MTAI scores were lower immediately after student teaching. Thus, there is support for significant mean attitude change on the MTAI in both positive and negative directions.

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[14]W. F. Troisi, "The Effect of Student-Teaching Upon Student Teachers' Objectives and Their Relation to Achievement and Attitudes Toward Children" (unpublished Doctor's dissertation, Pennsylvania State University, 1959).

[15]Duane L. Sandgren and Louis G. Schmidt, "Does Practice Teaching Change Attitudes Toward Teaching?" Journal of Educational Research (May, 1956), 673-80.

[16]Carl Campbell, "An Experimental Investigation of the Value of One Method of Self-Appraisal in Developing Certain Attitudes Among Student Teachers" (unpublished Doctor's dissertation, University of Virgina, 1962).

[17]W. H. Dutton, "Attitude Change of Elementary School Student Teachers and Anxiety," Journal of Educational Research (May, 1962), 380-82.

[18]H. P. Day, "Attitude Changes of Beginning Teachers After Initial Teaching Experience," The Journal of Teacher Education (September, 1959), 275-78.

There is evidence that the MTAI is only slightly susceptible to "faking good." Three testing sequences were arranged by Cook, Leeds, and Callis to determine the susceptibility to "faking good." The average increase in score in these three groups was only 1.8 points; thus, the testing sequences tended to support the authors' contention that the instrument is only slightly susceptible to "faking good."[19]

Scoring the Minnesota Teacher Attitude Inventory

The Minnesota Teacher Attitude Inventory consists of 150 items. There are no right answers, but rather levels of agreement or disagreement. In this Likert form there are five levels of agreement to disagreement (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree). Agreements have a value of plus one, and disagreements have a value of minus one. Thus the possible range of scores for the test is from +150 to -150. The total score can be obtained from a hand key.

The Inventory of Beliefs

The Inventory of Beliefs (Stereotypic Beliefs), Form I, was developed by the Cooperative Study of Evaluation in General Education of the American Council on Education. It is used to measure stereotypic beliefs or

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[19]Cook, Leeds, and Callis, The Minnesota Teacher Attitude Inventory, p. 13.

personality traits. The fundamental assumption underlying the instrument is that "the objectives of general education can serve as a base from which may be inferred the model organization characterizing the personalities of those most adaptable to the purposes of general education."[20] The Inventory of Beliefs is a synthesis of the various insights of psychologists regarding personality patterns and the various insights of educators regarding behavior, characterizing their interests into a product of general education.[21]

Some evidence has been obtained from the Inventory of Beliefs that suggests that identification of students can be made on some basis other than intellectual prowess. In three institutions, somewhat atypical ones, the Inventory of Beliefs or an adaptation of it identified approximately 17 per cent of the student body who could be expected to have difficulty accommodating to a general education program.[22] Since the personality traits characteristic of this group are obviously deep-seated, and since in society the form of education they are getting cannot

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[20]Irvin J. Lehmann and Paul L. Dressel, "Changes in Critical Thinking, Attitudes, and Values Associated with College Attendance" (Michigan State University, Cooperative Research Project No. 1646, Office of Education, HEW, 1963), p. 27. (Mimeographed.)

[21]Paul L. Dressel and Lewis B. Mayhew, General Education: Explorations in Evaluation (Washington, D.C.: American Council on Education, 1954), p. 238.

[22]Ibid., p. 239.

change them appreciably, the university must provide additional options for students.[23]

The Inventory of Beliefs explores the student's tendency toward (1) ideocentrism (ideas and intellectual abstractions), (2) ethnocentrism (social groups and identifications), (3) sociocentrism (interpersonal relations), and (4) egocentrism (the self).[24] The Inventory of Beliefs is designed to distinguish students who tend to accept stereotypes and who are dependent and rigid in their attitudes and values from those who are more mature in their viewpoints and who tend to be more adaptable in their beliefs and attitudes. A high scorer is thought to be mature, flexible, adaptive, and democratic in his relationships with others. A low scorer is immature, rigid in outlook, compulsive, and authoritarian in his relationships with others.[25] On the basis of expert judgment and statistical test performance data, 120 statements were selected for inclusion in the final form of the Inventory of Beliefs.

Over forty reliability studies of the several existing versions of the Inventory of Beliefs have been made, with samples ranging in size from nine to thirty-six. The reliability coefficients for the Inventory of Beliefs

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[23] Ibid., pp. 239-40.

[24] Lehmann, loc. cit. [25] Ibid.

range from .68 to .95 with a median r = .86.[26] The correlation between the Inventory of Beliefs, Form I, and the CQT (academic aptitude) is .30. The correlation between the Inventory of Beliefs and the Michigan State University freshman grade-point average is .20. The test-retest reliability is .71.[27]

The validity of the Inventory of Beliefs has been studied in several ways. The validity of the test as providing an index of personality structure was assessed by studying various inter-test correlations and by studying characteristics of persons whose scores fell at the two extremities of the range. The highest coefficients of .38 on the pre-test and .45 on the post-test were obtained between the Inventory of Beliefs and the Problems in Human Relations Inventory, both products of the Attitude Committee (American Council on Education) and both possessing considerable overlap in respect to the traits involved.[28]

Results obtained from other studies are consistent with the findings related above. At one institution teachers and students were solicited for estimates of students possessing the greatest degree of leadership.

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[26]George G. Stern, Methods in Personality Assessment (Glencoe, Ill.: Free Press, 1956), p. 200.

[27]Lehmann, loc. cit.

[28]Dressel, op. cit., pp. 223-24.

These "leaders" made significantly higher Inventory of Beliefs scores than the student population at large.[29] In another study involving Northern universities and Southern counterparts in general, the Northern students achieved better, although Southern students of high academic aptitude achieved higher Inventory of Beliefs scores than qualified Northern students.[30] Southern students appeared less authoritarian than did Northern students. It was interesting to note that in the number of colleges that administered the Inventory of Beliefs on a pre-test and post-test basis, two schools whose students made the greatest gains were schools whose student bodies are highly selective and whose programs of general education are carefully integrated, where classes are conducted using small group discussion and the teacher is considered a moderator.[31]

Scoring the Inventory of Beliefs

The Inventory of Beliefs consists of 120 items. There are no right answers but rather levels of agreement or disagreement. In this Likert form there are four levels of agreement to disagreement (Strongly Agree, Agree, Disagree, Strongly Disagree). The Disagree and Strongly Disagree categories are the correct responses to each

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[29] Ibid., p. 226.

[30] Ibid., pp. 226-27.

[31] Ibid.

question. The possible range of scores for the test is from zero to +120.

Summary

The population in this study consisted of eighteen student teachers in the Cluster Program and sixteen student teachers in the Conventional Program at the Michigan State University-Saginaw Student Teaching Center. This was a comparative study in which the student teachers were given the Minnesota Teacher Attitude Inventory and the Inventory of Beliefs in a pre-test and a post-test.

Although it does measure the attitude of an individual, the Minnesota Teacher Attitude Inventory is susceptible to faking responses. The means used to test the individuals must be closely scrutinized. The Minnesota Teacher Attitude Inventory appears to be an appropriate instrument to assess the general nature of a person's attitudes toward children and teaching as a profession.

The Inventory of Beliefs is designed to measure individuals who tend to accept stereotypes, from those who are dependent and rigid in attitudes and values to those who are more adaptable in attitudes and values.

The data for this study were collected during spring term, 1971, and subjected to statistical analysis and interpretation.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this chapter is to present the data. Statistical tests of the hypotheses are made, and the results are analyzed.

A Multivariate Analysis of Variance was used as the statistical model. Expressed as an F-test Ratio, each value was considered significant if it reached the .05 level of confidence. The independent variables used in the study included the variables of Treatments (the Cluster Program and the Conventional Program), Sex, and Grade-Point Average. Table 4.1, which indicates the cell frequencies, also is a general design for the study.

The individual scores for the pre-test and post-test of the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory are given in Table 4.2 and Table 4.3 respectively. The extremely positive or extremely negative scores of some subjects have affected the mean scores.

The Index of Response was used to determine the gain score from the pre-test and post-test of the inventories, the Minnesota Teacher Attitude Inventory and the

TABLE 4.1.--Design of the study (cell frequencies).

		Grade-Point Average			Totals
		Low	Medium	High	
T_1	M	3	1	1	5
	F	7	2	2	11
T_2	M	3	1	2	6
	F	4	5	3	12
Totals		17	9	8	34

T_1 = Conventional Program; T_2 = Cluster Program; Sex: M = Male; F = Female.

Inventory of Beliefs. The Index of Response = Post-Test - (K x Pre-Test) where K = Test-Retest Reliability. K = .71 for the Inventory of Beliefs, and K = .88 for the Minnesota Teacher Attitude Inventory. The use of the phrase "mean gain scores" refers to the Index of Response (Table 4.4).

All F-Ratios were multivariate; thus, both measures were tested for significance simultaneously. The correlation between the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory is 0.020681, using the Index of Response. Therefore, the two tests must be considered as measuring two distinct items.

Table 4.5 presents the results of tabulating the data using the Multivariate Analysis of Variance. As a

TABLE 4.2.--Individual scores on the Inventory of Beliefs.

T	Sex	GPA	S	Pre-test	Post-test	Index of Response
T_1	M	L	1	7	25	20.03
			2	3	10	7.87
			3	67	47	-.59
		M	4	3	15	12.87
		H	5	38	69	42.02
	F	L	6	92	8	-57.32
			7	21	12	-2.91
			8	4	7	4.16
			9	104	65	-8.84
			10	21	34	19.09
			11	37	24	-4.07
			12	8	30	24.32
		M	13	20	27	12.80
			14	38	61	34.02
		H	15	6	1	-3.26
			16	16	76	64.64
T_2	M	L	17	30	22	.70
			18	27	31	11.83
			19	2	12	10.58
		M	20	48	35	.92
		H	21	0	1	1.00
			22	8	1	-4.68
	F	L	23	28	32	12.12
			24	0	5	5.00
			25	41	22	-7.11
			26	12	31	22.48
		M	27	60	69	26.40
			28	32	37	14.28
			29	8	13	7.32
			30	21	60	45.91
			31	2	0	-1.42
		H	32	36	31	5.44
			33	19	14	.51
			34	8	18	12.32

T_1 = Conventional Program; T_2 = Cluster Program; S = Subject; Sex: M = Male; F = Female; Grade-Point Average: L = Low (2.00-2.84); M = Medium (2.85-3.69); H = High (3.70-4.50).

TABLE 4.3.--Individual scores on the Minnesota Teacher Attitude Inventory.

T	Sex	GPA	S	Pre-test	Post-test	Index of Response
T_1	M	L	1	45	43	3.40
			2	-1	-45	-44.12
			3	87	79	2.44
		M	4	72	21	-42.36
		H	5	74	96	30.88
	F	L	6	59	49	-2.92
			7	67	26	-32.96
			8	-7	-5	1.16
			9	102	68	-20.66
			10	85	54	-20.80
			11	79	89	19.48
			12	26	49	26.12
		M	13	43	17	-20.84
			14	56	16	-33.28
		H	15	59	46	-5.92
			16	85	84	9.20
T_2	M	L	17	22	17	-2.36
			18	72	35	-28.36
			19	29	-12	-37.52
		M	20	73	99	34.76
		H	21	-17	-6	8.96
			22	-46	-58	-17.52
	F	L	23	21	-31	-49.48
			24	41	47	10.92
			25	64	55	-1.32
			26	49	58	14.88
		M	27	91	71	-9.08
			28	71	63	.52
			29	64	62	5.68
			30	51	35	-9.88
			31	39	27	-7.32
		H	32	32	8	-20.16
			33	42	-3	-39.96
			34	36	60	28.32

T_1 = Conventional Program; T_2 = Cluster Program; S = Subject; Sex: M = Male; F = Female; Grade-Point Average: L = Low (2.00-2.84); M = Medium (2.85-3.69); H = High (3.70-4.50).

TABLE 4.4.--Index of responses (means).

			Grade-Point Average			Total Treatment Means	Total Sex Means	
			Low	Medium	High			
T_1	M	M_1	27.103	12.870	42.020	M_1 = 10.288	M_1 = 19.791	M
		M_2	-38.280	-42.360	30.880			
	F	M_1	-25.571	59.690	61.380	M_2 = -7.574	M_2 =-16.959	
		M_2	-30.583	-54.120	3.280			
T_2	M	M_1	23.109	0.920	-3.680	M_1 = 11.867	M_1 = 23.617	F
		M_2	-68.241	34.760	-8.560			
	F	M_1	82.492	92.490	18.270	M_2 = -11.229	M_2 =-20.742	
		M_2	-108.200	-20.080	-31.800			
Total GPA Means		M_1	M_1 = 6.302	M_1 = 17.011	M_1 = 14.749			
		M_2	M_2 =-14.427	M_2 = -9.089	M_2 = -0.775			

T_1 = Conventional Program; T_2 = Cluster Program; M_1 = Inventory of Beliefs; M_2 = Minnesota Teacher Attitude Inventory; M = Male; F = Female; GPA = Grade-Point Average.

TABLE 4.5.--Multivariate analysis of variance.

Sources (In Order of Testing)	Multivariate F-Ratio	Probability of Obtaining This F-Ratio if Populations are the Same
T x Sex x GPA	0.5344	0.7112*
Sex x GPA	0.2480	0.9093*
T x GPA	2.8967	0.0333 (S.)
GPA (H_5)	1.1713	0.3372 (N.S.)
Sex (H_4)	0.7515	0.4440 (N.S.)
T x Sex	0.3959	0.6780 (N.S.)
Treatment (H_1), (H_2)	0.6676	0.5236 (N.S.)

T = Treatments (Cluster Program and Conventional Program); GPA = Grade-Point Average; S. = Significant; N.S. = Not Significant.

(H_1), (H_2), (H_4), (H_5) refer to Hypotheses One, Two, Four, and Five. Hypothesis Three was tested by t-test, Table 4.4.

*These are not valid due to the significance of the T x GPA test. A property of the statistics used for unequal cell sizes is that all tests preceding a significant test are not valid.

part of the analysis procedure, interactions in addition to those hypothesized were tested. These interactions included Treatments x Sex x Grade-Point Average, Sex x Grade-Point Average, Treatments x Grade-Point Average, and Treatments x Sex.

Hypothesis One

Following their laboratory experience, the student teachers in the Cluster Program will not show a higher gain score as measured by the Inventory of Beliefs (Personality Traits or Stereotypic Beliefs) than student teachers in the Conventional Program.

Results

The difference in gain scores was not significant as will be shown in conjunction with Hypothesis Two below.

Hypothesis Two

Following their laboratory experience, the student teachers in the Cluster Program will not show a higher gain score as measured by the Minnesota Teacher Attitude Inventory than student teachers in the Conventional Program.

Results

For Hypothesis One and Hypothesis Two, the F-Ratio for the Multivariate Test of Equality of Means is 0.6676. This has a probability of occurrence of 0.5236 which is not considered significant. Therefore, the null hypotheses were rejected.

Hypothesis Three

There will not be a difference between the gain scores of the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory in the Cluster and Conventional Programs.

Results

The difference in the Index of Response on the Inventory of Beliefs for the Cluster and Conventional Programs was 17.862. The difference in the Index of Response on the Minnesota Teacher Attitude Inventory for the Cluster and Conventional Programs was 23.096. Testing by the t-test of significance, $t = -.687$. This was not significant since a $t > 1.98$ is needed to be significant at the .05 level (Table 4.6). Therefore, the null hypothesis was rejected.

Hypothesis Four

Sex differences will not have an effect on gain scores for Personality Traits or Stereotypic Beliefs as measured by the Inventory of Beliefs and attitudes as measured by the Minnesota Teacher Attitude Inventory in both the Cluster and Conventional Programs.

Results

Testing by the Multivariate Analysis of Variance, the F-Ratio is 0.7515 which has a probability of occurrence of 0.4440. Referring to the Index of Response, there was

TABLE 4.6.--T-test of Hypothesis Three.

$t = \frac{\bar{D}_1 - \bar{D}_2}{\frac{s^2}{(N_1 + N_2) - 2}}$	$s_P^2 = \frac{s^2}{2}$
	$= \frac{512.118320 + 503.709894}{2}$
$t = \frac{17.862 - 23.096}{7.61976}$	$\bar{D}_1 = (IB - MTAI)\ T_1$
	$\bar{D}_2 = (IB - MTAI)\ T_2$
$t = -.687$	$N_1 + N_2 = 68$
	s = sample variance

IB = Inventory of Beliefs; MTAI = Minnesota Teacher Attitude Inventory; T_1 = Conventional Program; T_2 = Cluster Program.

not a significant effect on scores to indicate a relationship between sex and the attitudes and stereotypic beliefs of student teachers. Therefore, the null hypothesis was rejected.

Hypothesis Five

Grade-point averages will not have an effect on gain scores for Personality Traits or Stereotypic Beliefs as measured by the Inventory of Beliefs and attitudes as measured by the Minnesota Teacher Attitude Inventory in both the Cluster and Conventional Programs.

Results

Testing by the Multivariate Analysis of Variance, the F-Ratio is 1.1713 which has a probability of occurrence

of 0.3372. Referring to the Index of Response, there was not a significant effect on scores to indicate a relationship between grade-point average and the attitudes and stereotypic beliefs of student teachers. Therefore, the null hypothesis was rejected.

Interaction of the Treatments by Grade-Point Average

The interaction of the two Treatments, the Cluster Program and the Conventional Program, by Grade-Point Average was found to be significant. This interaction provides a different perception from merely comparing the two Treatments. The additional variable of Grade-Point Average is introduced into the analysis, and the mean gain scores of each level of Grade-Point Average (Low, Medium, and High) are compared.

In the interaction of Treatments x (by) Grade-Point Average on the Inventory of Beliefs (Figure 4.1), the scores of the Cluster Program are closely congregated, varying from 2.918 to 15.568, while the scores of the Conventional Program are very much spread out, varying from 0.153 to 34.466. This is not reflected as clearly on the interaction of Treatments x Grade-Point Average on the Minnesota Teacher Attitude Inventory (Figure 4.2). The scores of the Cluster Program vary from 2.446 to -25.206 while the scores of the Conventional Program vary from 11.387 to -32.160. This congregation of scores could tend to indicate that within the Cluster groups the individuals

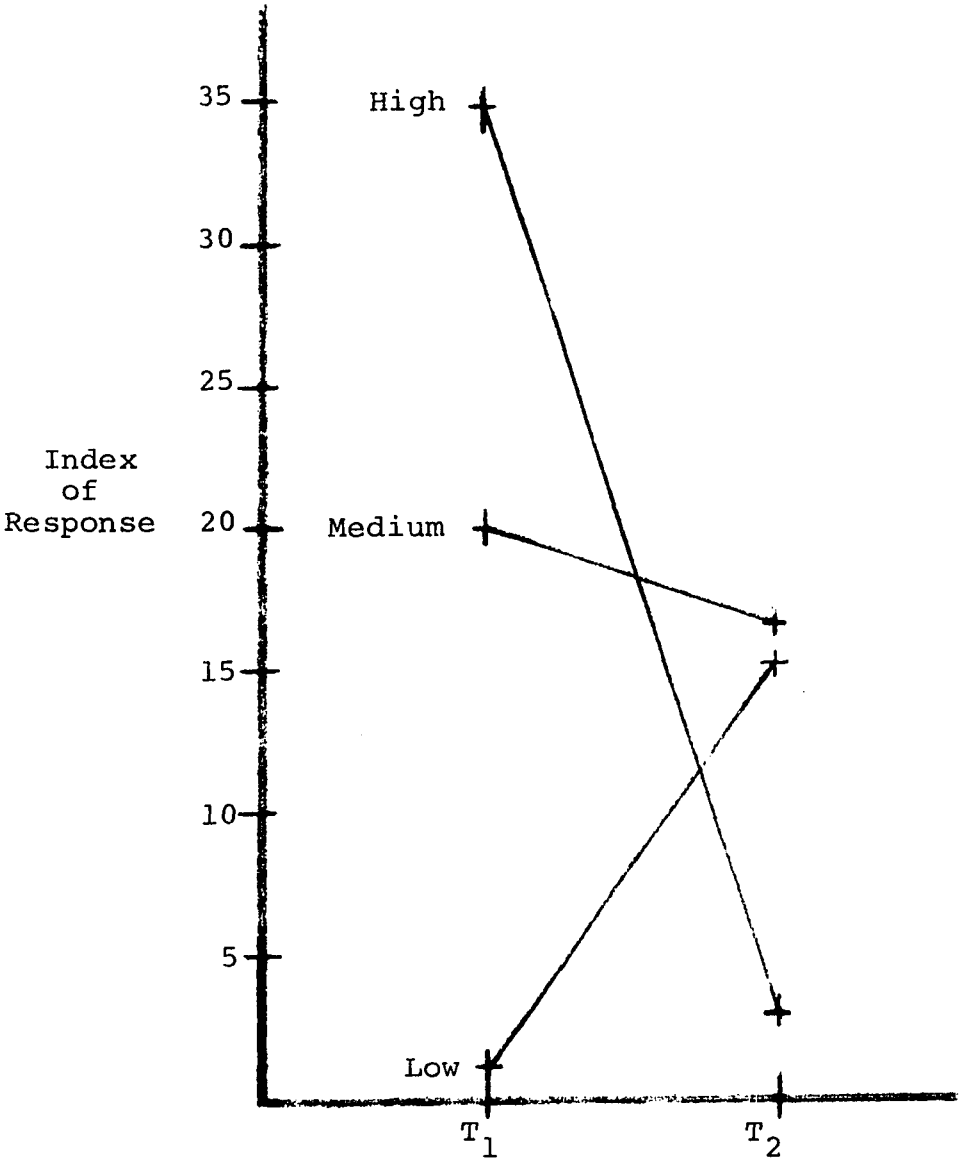

Figure 4.1. Interaction of Treatments x Grade-Point Average on the Inventory of Beliefs.

T_1 = Conventional Program; T_2 = Cluster Program; Grade-Point Average: High (3.70-4.50); Medium (2.85-3.69); Low (2.00-2.84).

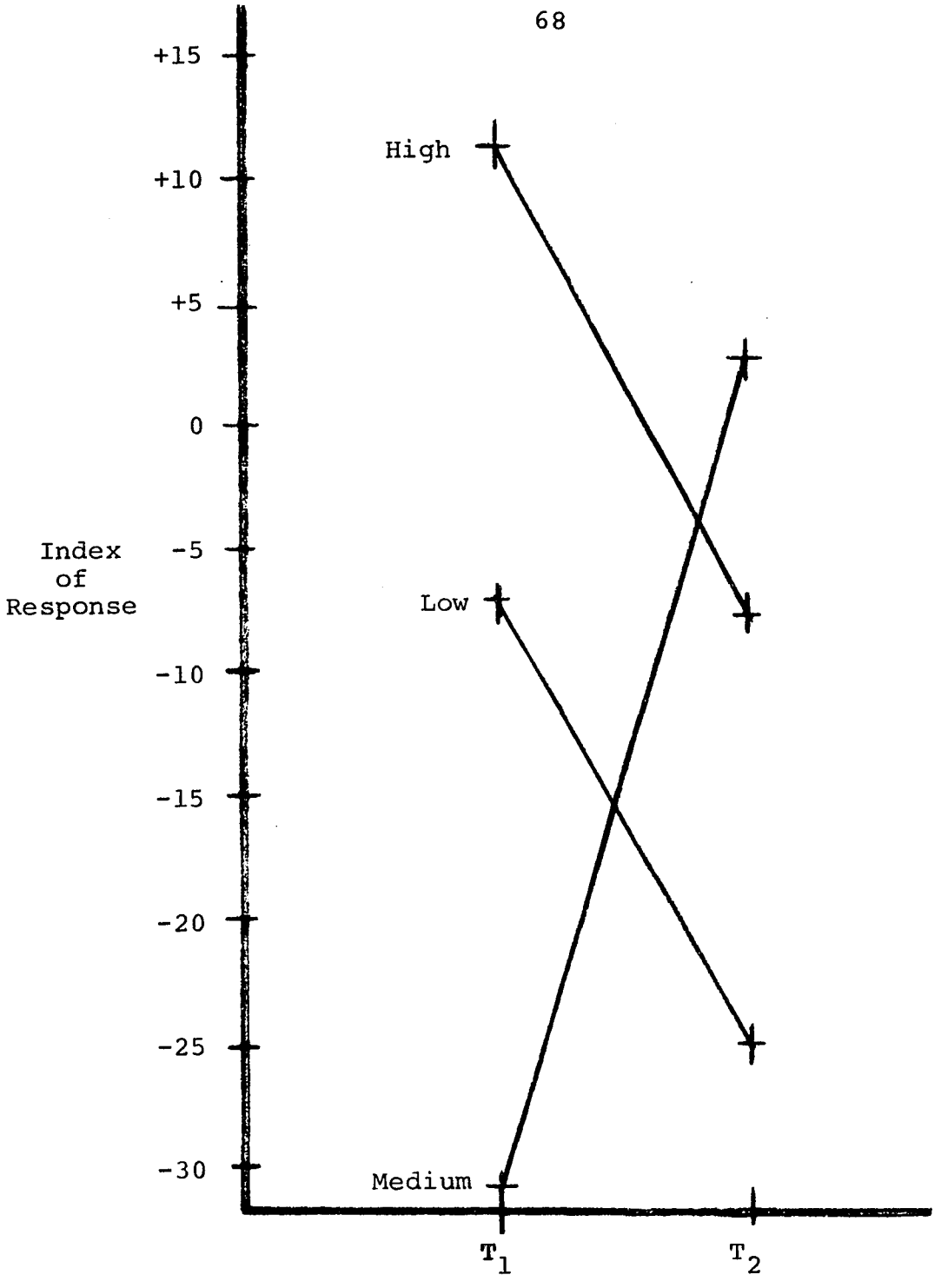

Figure 4.2. Interaction of Treatments x Grade-Point Average on the Minnesota Teacher Attitude Inventory.

T_1 = Conventional Program; T_2 = Cluster Program; Grade-Point Average: High (3.70-4.50); Medium (2.85-3.69); Low (2.00-2.84).

were quite supportive of each other's attitudes and the personality traits held by the group. They operated in a homogeneous group where the levels of Grade-Point Average (Low, Medium, and High) were operating together. This would also tend to indicate that the individuals in the Conventional Program worked independently of each other and perhaps chose this program with this desire in mind.

It is also interesting to note that the student teachers in the Conventional Program in the High and Medium Grade-Point Average (GPA) levels obtained higher mean gain scores on the Inventory of Beliefs, 34.466 and 19.90 respectively, in relation to the same levels in the Cluster Program, 2.918 and 15.568 respectively. This is even more an indication that the Grade-Point Average levels (Low, Medium, and High) had influence upon each other in the group. The responses by the individuals in the High GPA level show that they tend to be of a more stereotyped pattern and thus are selecting new members of the group to perpetuate the group stereotype. There may be a conflict in their demands, and they are relying on group support to form preferred social attitudes and personality traits. These attitudes and personality traits may be influenced by an individual of high credibility seen by the group and probably from the Medium GPA level. The score received by the High GPA group is influenced by the total Cluster group in a change of attitudes and personality traits such that

the gain score of the High GPA group was far below the gain scores of the Low and Medium GPA groups, especially on the Inventory of Beliefs. The individuals in the Cluster Program (made up of three Clusters in three different buildings) also had a more even distribution in the Low, Medium, and High levels of Grade-Point Average than the individuals in the Conventional Program (who taught in eight different buildings). However, sex is not necessarily evenly distributed in the Low, Medium, and High Grade-Point Average levels.

CHAPTER V

SUMMARY, FINDINGS, AND RECOMMENDATIONS

This chapter consists of a summary of the study followed by a discussion of the findings and recommendations for future research.

Summary

This study was designed to compare the Michigan State University Conventional Program of student teaching with the Cluster Program regarding stereotypic beliefs as measured by the Inventory of Beliefs and attitude formation as measured by the Minnesota Teacher Attitude Inventory. These factors were used to answer the following questions about the effectiveness of the Cluster Program in relation to the Conventional Program: (1) Do student teachers in the Cluster Program show a higher gain score as measured by the Minnesota Teacher Attitude Inventory, which reflects attitudes toward pupils and teaching as a profession, than student teachers in the Conventional Program? (2) Do student teachers in the Cluster Program show a higher gain score as measured by the Inventory of Beliefs, which reflects beliefs which are adaptive,

flexible, and democratic toward people, than student teachers in the Conventional Program?

This was a comparative study in which eighteen student teachers in the Cluster Program and sixteen student teachers in the Conventional Program at the Michigan State University-Saginaw Student Teaching Center were given a pre-test the first week of student teaching and a post-test the tenth (and final) week. The sample taken was a small representation of the total population of student teachers at Michigan State University. The Multivariate Analysis of Variance was used as the statistical model.

The following hypotheses were tested:

1. Following their laboratory experience, the student teachers in the Cluster Program will not show a higher gain score as measured by the Inventory of Beliefs (Personality Traits or Stereotypic Beliefs) than student teachers in the Conventional Program.

2. Following their laboratory experience, the student teachers in the Cluster Program will not show a higher gain score as measured by the Minnesota Teacher Attitude Inventory than student teachers in the Conventional Program.

3. There will not be a difference between the gain scores of the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory in the Cluster and Conventional Programs.

4. Sex differences will not have an effect on gain scores for Personality Traits or Stereotypic Beliefs as measured by the Inventory of Beliefs and attitudes as measured by the Minnesota Teacher Attitude Inventory in both the Cluster and Conventional Programs.

5. Grade-point averages will not have an effect on gain scores for Personality Traits or Stereotypic Beliefs as measured by the Inventory of Beliefs and attitudes as measured by the Minnesota Teacher Attitude Inventory in both the Cluster and Conventional Programs.

Findings

Examination of the data in reference to the hypotheses revealed the following conclusions:

1. Student teachers in the Cluster Program showed a higher positive gain score as measured by the Inventory of Beliefs, which reflects beliefs which are adaptive, flexible, and democratic toward people, than student teachers in the Conventional Program, but the gain score was not significant.

2. Student teachers in the Cluster Program showed a higher negative gain score as measured by the Minnesota Teacher Attitude Inventory, which reflects a more negative attitude toward pupils and toward teaching as a profession, than student teachers in the Conventional Program, but the gain score was not significant.

3. A difference existed between the gain scores of the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory in the Cluster and Conventional Programs, but it was not significant.

4. There was not a significant effect on gain scores to indicate a relationship between sex and the attitudes and stereotypic beliefs (personality traits) of student teachers.

5. There was not a significant effect on gain scores to indicate a relationship between grade-point average and the attitudes and stereotypic beliefs (personality traits) of student teachers.

Discussion

It is important that theories of learning be incorporated in the teacher education program which include both the development of attitudes (affective domain) and the development of skills and concepts (cognitive domain). Within the affective domain an area of emphasis should be the development of the teacher's personality. Teacher educators need to realize that both the affective and cognitive domains should be included in all levels of the teacher education program.

There is an indication that the student teachers as a group did not noticeably change their attitudes. As individual teachers they changed their attitudes either positively or negatively. As a total group the gain score was a positive gain on the Inventory of Beliefs while it was a negative gain on the Minnesota Teacher Attitude

Inventory. Price[1] found that student teachers showed a higher gain score on attitude change as measured by the Minnesota Teacher Attitude Inventory, but he found no significant difference between student teachers in the Cluster Program and the Conventional Program. Two previous studies using the Minnesota Teacher Attitude Inventory indicated a decrease in scores. Campbell[2] found that mean scores on the Minnesota Teacher Attitude Inventory for both the control and experimental groups decreased after student teaching. Dutton[3] conducted a pre-test and post-test of the Minnesota Teacher Attitude Inventory and found that 78 per cent of the student teachers tested changed in a negative direction toward children as pupils.

As a result of this study some questions have been raised regarding the Cluster and Conventional Programs. Since the student teachers' attitudes about children and the profession and their stereotypic beliefs did not differ

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[1]William J. Price, "A Study of the Effects of the Student Teaching Experience and the Student Teaching Assignment upon the Educational Attitudes of Secondary Student Teachers at Michigan State University" (unpublished Doctor's dissertation, Michigan State University, 1971).

[2]Carl Campbell, "An Experimental Investigation of the Value of One Method of Self-Appraisal in Developing Certain Attitudes Among Student Teachers" (unpublished Doctor's dissertation, University of Virginia, 1962).

[3]W. H. Dutton, "Attitude Change of Elementary School Student Teachers and Anxiety," Journal of Educational Research (May, 1962), 380-82.

significantly between the Cluster Program and the Conventional Program, does this indicate that there may not be any difference between the two programs? In order to carry out the Cluster Program, it appears essential that the individual of influence, the clinical consultant, understand and execute the philosophy of the program. He should be highly receptive to this type of program, or else the program may become only a perpetuation of the traditional student teaching program.

Specific situations also may have influenced the scores of the student teachers on the Inventory of Beliefs and the Minnesota Teacher Attitude Inventory. One of the Clusters included in the study was located in an inner city school where the teaching staff had been under extreme pressure during the year because of circumstances occurring in the city. The student teachers operating in this school may have been influenced greatly by this staff. Can a Cluster true to the philosophy of the program exist in an inner city setting, considering the limitations of this environment?

Some of the student teachers changed their attitudes and beliefs in a negative direction which may have resulted from the strong disciplinary actions that have been taken in the school where they were placed. Another situation which may have influenced scores was that a high school located in the suburbs had a teaching staff which had become a strong, cohesive group. The student teachers

placed in this school were not in a Cluster Program, but they felt the influence of the staff and also became a closer group. In some ways they met the criteria of a Cluster group although they were considered to be in the Conventional Program.

Additional factors are introduced in the various student teaching centers which may account for the influence of attitude change; e.g., the philosophies of the coordinator and the clinical consultant, general student teaching center policy and program, or the type of school. Such variables could provide a large fluctuation in the attitudes of student teachers from student teaching center to student teaching center.

Two additional limiting points have influenced the results and should be questioned. First, does the length of time it takes a person to change his attitudes vary with the individual? The point is that the nine-week period between the pre-test and post-test of the inventories may not have been enough time to effect any change in some student teachers' attitudes. Secondly, in the teacher education program, is student teaching generally the only "real-life" exposure to working with children and to teaching in the public schools? In essence this laboratory experience may be a "culture shock" for most students, who must adjust to the public school setting or perhaps even the inner city culture after exposure to the university culture. Thus, the testing time to determine

any change of attitude or stereotypic beliefs, especially at the end of the ten-week period, may be a confusing time for the student teacher. He is attempting to continue to adjust to the school setting and to establish himself in the role of a teacher. What does he really believe? What does he value? He may have been too preoccupied with teaching in the public schools mostly at the cognitive level (subject-centered), and has been given little time or opportunity to reflect upon his attitudes and values.

Two additional concerns grow out of this study. The adjustment to student teaching is a rather complex one for some students. As much as possible student teachers should be allowed to select the location and the grade level where they want to do their student teaching. They should be made aware of the various options, such as the Cluster Program, the Conventional Program, or a team approach, in the different student teaching centers. The other concern is related to the adjustment of student teachers to the school setting and change in their stereotypic beliefs. The stereotypic beliefs or personality patterns at the beginning of student teaching are patterns the student teachers perceived while they were in the public schools as pupils, and they bring these patterns to the student teaching experience. Most student teachers are away from the public schools from the time they graduate from high school to the time they do their student teaching. Presently students in Michigan State

University teacher preparation courses are given some opportunity to be involved in a community or school experience in direct contact with children, but this is still limited to a small number of individuals. This opportunity should be expanded as a continuous option for all teacher education students at all levels of preparation. A portion of these experiences should be considered mandatory so that education students may become sensitive to the needs of different age groups and school situations. For example, student teachers planning to teach in the inner city schools could assist teachers in the inner city schools or work as volunteers in the community. Those planning to teach at the junior high or middle school level could also observe at the senior high school and elementary school levels to see the differences in children and teaching at other levels. Thus, the student teaching experience should not be considered the only laboratory experience where a student is evaluated, but a part of a series of experiences where personal growth can take place once a student enters the teacher education program.

Recommendations

The following recommendations should be considered for further research study:

1. Devise additional research instruments to determine affective development of teachers. The Minnesota Teacher Attitude Inventory surely must be

reassessed, considering that it was based on the attitudes of teachers during the 1950's, and attitudes of present-day teachers may be different.

2. Design additional studies to evaluate the effectiveness of the Cluster Program as an experience for student teachers which possibly develops better attitudes about teaching and more concern for children. A random sample of all student teachers in Cluster Programs of Michigan State University around the state of Michigan should be compared with a random sample of Conventional Programs of Michigan State University. Is the fact that the student teachers are supportive of each other in a team unique to the Cluster Program? Are the student teachers choosing the Cluster so they can operate more closely in a team? Is this a basic need the student teachers have in their personalities? Are the public schools developing new teacher roles which support the purposes of the Cluster Program? Is there greater flexibility in the Cluster Program? Is the presence of the clinical consultant in the Cluster Program a crucial factor?

3. Examine the relationship between attitudes, actual teacher behaviors, and reactions to teacher behaviors in the classroom. Do student teachers with negative attitudes have behavioral problems in the classroom? What is the personality make-up of these student teachers?

4. Assess and observe students in the teacher education program over a two or three-year period to determine their patterns of growth, using various inventories on attitudes and achievement. Are the experiences in which students are exposed to the public schools a crucial portion of the teacher preparation program? Are there crucial periods in their development during their training when there is the greatest change in attitude?

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APPENDICES

APPENDIX A

PERSONAL DATA FORM

APPENDIX A

PERSONAL DATA FORM

Number _____

Student Number _____

Instructions:

The Personal Data Form is designed to accompany the MTAI and Inventory of Beliefs forms. It consists of seven items.

You will note that there is an identification number on this page which corresponds to the number on your MTAI and Inventory of Beliefs answer sheets. Do not write your name on either page, only your student number.

---

1. Sex: female _____ male _____

2. Race: black _____ white _____ other _____

3. Marital status: single _____ married _____ other _____

4. Grade-point average:

   2.00-2.84 _____ 2.85-3.69 _____ 3.70-4.50 _____

5. Are you student teaching in a Cluster? Yes_____ No_____

6. In what grade level and/or subject areas are you doing your student teaching?

   _____

7. In what school are you doing your student teaching?

   _____

APPENDIX B

INVENTORY OF BELIEFS

APPENDIX B

INVENTORY OF BELIEFS

Cooperative Study of Attitude and Values

Inventory 1

This inventory consists of 120 statements which range over a wide variety of topics. As you read each statement you are asked to indicate quickly your agreement or disagreement with it in terms of the key given below. People have different reactions to these statements. This is not a test in which there are "right" and "wrong" answers. What is wanted here is your own quick personal reaction. You should be able to finish taking the inventory in 30 minutes or less.

In responding to these statements you will notice that there is no way provided for indicating a neutral position. It is desired that you indicate a tendency toward either agreement or disagreement even though you may prefer to remain undecided. It is important that you respond to every one of the 120 statements.

The key you are to use in responding to these statements is reproduced at the top of each page. For each question, write the key number (1, 2, 3, 4) in the blank on the enclosed IBM form.

Key:
1. I strongly agree or accept the statement.
2. I tend to agree or accept the statement.
3. I tend to disagree or reject the statement.
4. I strongly disagree or reject the statement.

1. If you want a thing done right, you have to do it yourself.

2. There are times when a father, as head of the family, must tell the other family members what they can and cannot do.

3. Lowering tariffs to admit more foreign goods into this country lowers our standard of living.

4. Literature should not question the basic moral concepts of society.

5. Reviewers and critics of art, music, and literature decide what they like and then force their tastes on the public.

6. Why study the past, when there are so many problems of the present to be solved.

7. Business men and manufacturers are more important to society than artists or musicians.

8. There is little chance for a person to advance in business or industry unless he knows the right people.

9. Man has an inherent guide to right and wrong--his conscience.

10. The main thing about good music is lovely melody.

11. It is only natural and right for each person to think that his family is better than any other.

12. All objective data gathered by unbiased persons indicate that the world and universe are without order.

13. Any man can find a job if he really wants to work.

14. We are finding out today that liberals really are soft-headed, gullible, and potentially dangerous.

15. A man can learn as well by striking out on his own as he can by following the advice of others.

16. The predictions of economists about the future of business are no better than guesses.

17. Being a successful wife and mother is more a matter of instinct than of training.

18. A person often has to get mad in order to push others into action.

19. There is only one real standard in judging art works--each to his own taste.

20. Business enterprise, free from government interference, has given us our high standard of living.

21. Nobody can make a million dollars without hurting other people.

22. Anything we do for a good cause is justified.

23. Public resistance to modern art proves that there is something wrong with it.

24. Sending letters and telegrams to congressmen is mostly a waste of time.

25. Many social problems would be solved if we did not have so many immoral and inferior people.

26. Art which does not tell a human story is empty.

27. You can't do business on friendship; profits are profits; and good intentions are not evidence in a law court.

28. A person has troubles of his own; he can't afford to worry about other people.

29. Books and movies should start dealing with entertaining or uplifting themes instead of the present unpleasant, immoral, or tragic ones.

30. Children should be made to obey since you have to control them firmly during their formative years.

31. The minds of many youth are being poisoned by bad books.

32. Speak softly, but carry a big stick.

33. Ministers in churches should not preach about economic and political problems.

34. Each man is on his own in life and must determine his own destiny.

35. New machines should be taxed to support the workers they displace.

36. The successful merchant can't allow sentiment to affect his business decisions.

37. Ministers who preach socialistic ideas are a disgrace to the church.

38. Labor unions don't appreciate all the advantages which business and industries have given them.

39. It's only natural that a person should take advantage of every opportunity to promote his own welfare.

40. We should impose a strong censorship on the morality of books and movies.

41. The poor will always be with us.

42. A person who is incapable of real anger must also be lacking in moral conviction.

43. If we allow more immigrants into this country, we will lower our standard of culture.

44. People who live in the slums have no sense of respectability.

45. We acquire the highest form of freedom when our wishes conform to the will of society.

46. Modern paintings look like something dreamed up in a horrible nightmare.

47. Voting determines whether or not a country is democratic.

48. The government is more interested in winning elections than in the welfare of the people.

49. Feeble-minded people should be sterilized.

50. In our society, a person's first duty is to protect from harm himself and those dear to him.

51. Those who can, do; those who can't, teach.

52. The best government is one which governs least.

53. History shows that every great nation was destroyed when its people became soft and its morals lax.

54. Philosophers on the whole act as if they were superior to ordinary people.

55. A woman who is a wife and mother should not try to work outside the home.

56. We would be better off if people would talk less and work more.

57. In some elections there is not much point in voting because the outcome is fairly certain.

58. The old masters were the only artists who <u>really</u> knew how to draw and paint.

59. Most intellectuals would be lost if they had to make a living in the realistic world of business.

60. You cannot lead a truly happy life without strong moral and religious convictions.

61. If we didn't have strict immigration laws, our country would be flooded with foreigners.

62. When things seem black, a person should not complain, for it may be God's will.

63. Miracles have always taken place whenever the need for them has been great enough.

64. Science is infringing upon religion when it attempts to delve into the origin of life itself.

65. A person has to stand up for his rights or people will take advantage of him.

66. A lot of teachers, these days, have radical ideas which need to be carefully watched.

67. Now that America is the leading country in the world, it's only natural that other countries should try to be like us.

68. Most Negroes would become overbearing and disagreeable if not kept in their place.

69. Foreign films emphasize sex more than American films do.

70. Our rising divorce rate is a sign that we should return to the values which our grandparents held.

71. Army training will be good for most modern youth because of the strict discipline they will get.

72. When operas are sung in this country they ought to be translated into English.

73. People who say they're religious but don't go to church are just hyprocrites.

74. What the country needs, more than laws or politics, is a few fearless and devoted leaders in whom the people can have faith.

75. Pride in craftmanship and in doing an honest day's work is a rare thing these days.

76. The United States may not have had much experience in international dealings but it is the only nation to which the world can turn for leadership.

77. In practical situations, theory is of very little help.

78. No task is too great or too difficult when we know that God is on our side.

79. A sexual pervert is an insult to humanity and should be punished severely.

80. A lot of science is just using big words to describe things which many people already know through common sense.

81. Manual labor and unskilled jobs seem to fit the Negro mentality and ability better than more skilled or responsible work.

82. A person gets what's coming to him in this life if he doesn't believe in God.

83. Public officials may try to be honest but they are caught in a web of influence which tends to corrupt them.

84. Science makes progress only when it attempts to solve urgent practical problems.

85. Most things in life are governed by forces over which we have no control.

86. Young people today are in general more immoral and irresponsible than young people of previous generations.

87. Americans may tend to be materialistic, but at least they aren't cynical and decadent like most Europeans.

88. The many different kinds of children in school these days force teachers to make a lot of rules and regulations so that things will run smoothly.

89. Jews will marry out of their own religious group whenever they have the chance.

90. The worst danger to real Americanism during the last 50 years has come from foreign ideas and agitators.

91. Europeans criticize the United States for its materialism but such criticism is only to cover up their realization that American culture is far superior to their own.

92. The scientist that really counts is the one who turns theories into practical use.

93. No one can really feel safe when scientists continue to explore whatever they wish without any social or moral restraint.

94. Nudist colonies are a threat to the moral life of a nation.

95. One trouble with Jewish businessmen is that they stick together and prevent other people from having a fair chance in competition.

96. No world organization should have the right to tell Americans what they can or cannot do.

97. There is a source of knowledge that is not dependent upon observation.

98. Despite the material advantages of today, family life now is not as wholesome as it used to be.

99. The United States doesn't have to depend on the rest of the world in order to be strong and self-sufficient.

100. Foreigners usually have peculiar and annoying habits.

101. Parents know as much about how to teach children as public school teachers.

102. The best assurance of peace is for the United States to have the strongest army, navy, air force, and the most atom bombs.

103. Some day machinery will do nearly all of man's work, and we can live in leisure.

104. There are too many people in this world who do nothing but think about the opposite sex.

105. Modern people are superficial and tend to lack the finer qualities of manhood and womanhood.

106. Members of religious sects who refuse to salute the flag should be punished for their lack of patriotism.

107. Political parties are run by insiders who are not concerned with the public welfare.

108. As young people grow up they ought to get over their radical ideas.

109. Negroes have their rights, but it is best to keep them in their own districts and schools and to prevent too much contact with whites.

110. The twentieth century has not had leaders with the vision and capacity of the founders of this country.

111. There are a lot of things in this world that will never be explained by science.

112. Sexual relations between brother and sister are contrary to natural law.

113. There may be a few exceptions, but in general Jews are pretty much alike.

114. The world will get so bad that some of these times God will destroy it.

115. Children should learn to respect and obey their teachers.

116. Other countries don't appreciate as much as they should all the help that America has given them.

117. We would be better off if there were fewer psychoanalysts probing and delving into the human mind.

118. American free enterprise is the greatest bulwark of democracy.

119. If a person is honest, works hard, and trusts in God, he will reap material as well as spiritual rewards.

120. One will learn more in the school of hard knocks than he ever can from a textbook.

APPENDIX C

MINNESOTA TEACHER ATTITUDE INVENTORY

PLEASE NOTE:

Following page 98, Appendix C: "Minnesota Teacher Attitude Inventory, Form A", © 1951 by The Psychological Corporation, not microfilmed at request of author. Available for consultation at Michigan State University Library.

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