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UPON THE EDUCATIONAL ATTITUDES OF SECONDARY
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MICHIGAN STATE UNIVERSITY

By

William J. Price

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ABSTRACT

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

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Purpose of the Study

This study was designed to examine the effects of the student teaching experience and the individual student teaching assignment upon the educational attitudes of secondary student teachers at Michigan State University. Three specific questions were explored:

1. To what extent have Michigan State University student teachers developed positive attitudes toward children and toward teaching as a vocation upon completion of their student teaching experience?

2. Did the student teaching experience itself play a significant role in the modification of those attitudes and in what ways?

3. Did the specific and particular assignment or student teaching placement that each student teacher was

given have any significant relationship to the subsequent attitudes developed toward children and toward teaching as a vocation on the part of the student teacher?

Methodology

To conduct the study a pre and post test design was used utilizing the Minnesota Teacher Attitude Inventory administered during the first week of student teaching and during the last week of student teaching. A student teacher questionnaire was also administered during the final week of student teaching to gather data relevant to the specific nature of the assignment. Scores on the MTAI were compared with the data from the questionnaire using analysis of variance to test for effect of the assignment on educational attitudes of student teachers. Sixty-seven student teachers from the spring term 1970 student teaching population at Michigan State University made up the sample.

Findings of the Study

1. The attitudes held by student teachers in Michigan State University's student teaching program were significantly changed in a positive direction as the result of the student teaching experience.

2. Student teachers who experience a significant change in their educational attitudes as a consequence of their student teaching do not necessarily perceive themselves as having changed in their attitudes in any significant way.

3. There was no significant relationship between the scores of student teachers on the MTAI and their age, sex, or marital status, the subject area in which the student teaching was done, the number of supervising teachers worked with, whether a student teacher was assigned to a regular or cluster assignment, the size of the student enrollment, the socio-economic or racial composition of the student body or the facilities of the school in which the student teaching was done, whether the assignment was consistent with the student teacher's original plans for teaching a particular subject or course or had any pre-student teaching contacts with secondary school students, the overall ability of the regular faculty of the building or whether the classes taught were grouped by some measure of ability, or the age and sex of the supervising teacher.

4. There was a significant relationship between the scores of student teachers on the MTAI and whether their assignment was consistent with their original plans for teaching in a particular grade level, whether the student teaching was done in a building in which the rapport of the principal with his staff was rated excellent as opposed to poor, and whether the feelings of the teachers in the building toward the central administrative staff of the school district was highly respectful or of little respect.

5. An unexplainable result was that 51 percent of the total sample had post test scores on the MTAI ranking them in the bottom quartile on norms for the Inventory.

DEDICATION

To my father and mother, Jasper and Edythe Price, from whom came many years of love, encouragement, and stress on the value of education, this thesis is dedicated with my love and price.

ACKNOWLEDGEMENTS

Acknowledgement is gratefully extended to the following people whose help, assistance, and advice aided in shaping this study.

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CHAPTER I

INTRODUCTION

A Rationale for the Study of Teacher Attitudes

Throughout the entire history of teacher education in America there has been little question that the primary goal for teacher education institutions should be the preparation of good teachers. While this simple statement of purpose has generated virtually no disagreement among teacher educators, a great deal of disagreement has arisen for many years over the questions of what good teaching really is and how one best prepares candidates whose teaching performance will meet that description.

Traditionally teacher preparation institutions have attempted to define good teaching by examining the specific skills, methods, and techniques which teachers who are considered highly effective use daily in their classrooms. This approach has emphasized the notion that if we know what expert teachers do, or are like, then we can teach the beginners to be like that. Each decade has produced countless studies of teaching which have only added to the already exhaustive lists of skills and competencies which researchers have concluded that good teachers most frequently exhibit in their teaching. As a

consequence of this conceptualization of the teaching process, models which teacher education institutions have devised for the training of teachers are typically built around a professional education course sequence which emphasizes learning theory, teaching strategies, and principles of education, followed by courses emphasizing methods and the mechanics of presentation, implementation, and evaluation of course content, and finally culminating in the student teaching experience for the practical application of those skills, techniques, and theories.

What those whose efforts are devoted to working with prospective teachers during their student teaching experience often note, however, is the realization that many student teachers are ineffective in their teaching not, or at least not solely, as a result of their failure to use specific skills and methods correctly, but rather as a result of their inability to relate well with an develop an excellent rapport toward their pupils. Many student teachers discover that good teaching is more than a mechanical process but rather is a complex interaction between themselves and their pupils, which inevitably involves the way in which each views the other.

As well as the recognition of its complexity, there is also a growing realization that good teaching is both relative and situational. What teachers do is

always related to the situations they are in. Blanket statements concerning what constitutes good teaching and the good teacher fail to recognize these factors. The most meaningful and accurate appraisal of good teaching is probably one that is specific and limited to an estimate of the effectiveness of the relationship between a given teacher and a given pupil at a specific time, in terms of the current needs of that pupil. Each teacher-pupil relationship, therefore, is both complex and unique. As the focus shifts from one teacher to another and from one teacher-pupil relationship to another, changes occur in the elements that are crucial in determining the nature and the quality of the relationship between the teacher and the pupil.

If, indeed, teaching is a complex and highly personal process of interaction, then teaching teachers how to teach by describing specific skills, competencies, and methods to be mastered may be less important than developing in teacher candidates the realization that teaching is essentially a problem in human relationships. It involves the dynamic interplay of human personalities, the central ones being those of the teacher and the pupil. If this notion is valid, it seems reasonable also that the questions of values, beliefs, and attitudes of teachers takes on increasing importance. The effectiveness with which teachers and pupils work together in the classroom

may well be conditioned by their respective beliefs and attitudes concerning their activities and problems. In such a conceptualization of teacher education the development of a positive set of attitudes toward children and toward teaching becomes imperative.

Teacher education institutions have for some time at least implicitly recognized the importance of attitudes and attitude formation. A survey of teacher education objectives reveals a strong resemblance of those objectives to the development of certain kinds of attitudes and values.¹ The emphasis in many such curricula has been on the formation of a set of positive attitudes about children and about teaching that are deemed appropriate and desirable for prospective teachers to internalize.

More recent literature in education also reflects an increased concern with the importance of teacher attitudes. As Bills² has stated,

student teaching and teacher education must be concerned with more than the acts of teaching--it must be concerned with the entire being of the prospective teacher and with his ability significantly to influence the being of the people who will become his students.

¹Alton Harrison, Jr., "Teacher Education Objectives--A Lack of Congruence," The Journal of Teacher Education, XIX, No. 3 (Fall, 1968), 358.

²Robert E. Bills, "The Classroom Teacher," Mental Health and Teacher Education, Forty-sixth Yearbook of the Association for Student Teaching (Dubuque, Iowa: Wm. C. Brown Co., Inc., 1967), p. 5.

Joyce³ has concluded from his studies that "teacher behavior is determined by a blending of professional knowledge and attitudes. Students will use knowledge about children and learning in the light of attitudes which they bring or form while in the classroom." Arthur Combs⁴ has stated,

Each of us can only behave in terms of what he believes is so. What a teacher believes, therefore, about the nature of his students will have a most important effect on how he behaves toward them. . . . False beliefs about the nature of people can only result in the selection of inappropriate ways of dealing with them.

If good teaching, therefore, is viewed as a problem in human relationships and if attitudes are a prime determinant of those relationships, the development and reinforcement of a positive set of attitudes in teacher candidates should be of central concern to teacher educators.

The Problem

This study was designed to gather evidence with which to answer three essential questions relating to attitude formation in the teacher education program at Michigan State University. The first of these questions

³Bruce R. Joyce, "The Social Climate of Teacher Education," The Journal of Teacher Education, XIV (June, 1963), 179.

⁴Arthur W. Combs, The Professional Education of Teachers (Boston: Allyn and Bacon, Inc., 1965), p. 21.

is whether prospective teachers at Michigan State University are developing positive attitudes and beliefs about teaching and about school children as a consequence of their professional training. The second question to be answered is what the nature of the effects of the student teaching experience is upon the development and reinforcement of such attitudes. The third question asks whether certain kinds of student teaching assignments may be more conducive to fostering positive attitudes among student teachers than other kinds of assignments.

If the teacher education program at this institution is to be sensitive to the affective education of its teacher candidates then some assessment must first be made as to the degree to which teacher candidates finish their undergraduate professional training with a positive set of attitudes and beliefs regarding school children and teaching as a profession. If candidates from this institution do not fare well when compared with national norms for teacher education graduates then it may be that additional emphasis needs to be given to this aspect of the teacher education program. If teacher candidates from this institution do compare favorably with national norms for teacher candidates then it may be important to know where those specific points in the professional training sequence are that appear to be most crucial in developing or modifying positive attitudes so that added emphasis

can be given during those stages of professional development.

When examining the total professional curriculum it is felt by many educators that the single most important element in the preparation of new teachers may be the student teaching experience. If this aspect of a student's professional education is of greater significance to him than other parts of the professional curriculum, then it may also be likely that it has the greatest impact upon forming or altering his educational beliefs and attitudes. This study, therefore, is also designed to determine the extent to which attitudes of teacher candidates are affected by the student teaching experience and in what ways. If this experience seems to affect students in a negative manner than it is obvious that the student teaching phase of teacher education must be examined more closely to identify factors which may be detrimental to building healthy attitudes in students.

Finally, if teaching and schools are people interacting, where primary interactions are between teacher and pupil, then the basis upon which teacher and pupil are placed together may also be of central concern to those in student teaching. The third task for this study is to examine various factors of the specific student teaching assignment to determine whether the very nature of the

assignment itself has an effect on student teacher attitudes.

The Need for the Study

The answers obtained by this study may produce evidence which will be of value to those who work with teacher candidates at Michigan State University as well as others who work in both public schools and in various colleges and universities.

If positive attitudes toward children and teaching are instrumental to good teaching, then those charged with the responsibility for the professional preparation of teachers must be made aware of the extent to which their students are developing such attitudes. Subsequently, they need, as teacher educators, to be able to recognize those crucial points in the teacher preparation program, such as student teaching, where additional reinforcement of healthy attitudes may be especially vital and develop a teacher training program which insures that there is positive growth.

In addition, if there is a relationship between the particular placement or assignment that a student teacher receives and the feelings and attitudes that he may develop as a consequence of that assignment, then student teaching directors and coordinators may need to give added considerations in their assignments or placements of student teachers in schools.

Statements of Hypotheses

Specifically, this study is designed to examine the student teaching experience at Michigan State University as it relates to the following hypotheses.

1. There will be no difference between mean post test scores on the Minnesota Teacher Attitude Inventory for Michigan State University student teachers when compared with national norms for secondary level graduating seniors in education for that instrument.
2. The attitudes of student teachers, as measured by the Minnesota Teacher Attitude Inventory, during completion of the student teaching experience will not show a significant difference from attitude measures obtained by the same instrument for the same students at the beginning of the student teaching experience.
3. There will be no difference in the attitude scores for student teachers as measured by the Minnesota Teacher Attitude Inventory, which result from various factors of the student teacher's assignment (placement).
4. Student teachers who change their attitudes significantly will not perceive themselves as experiencing such change.

Definition of Terms Used

Assignment (placement). The particular school district, building and classroom and cooperating teacher to which a student teacher is attached for the purpose of gaining guided experience in classroom teaching.

Attitudes toward children and teaching. Evaluative predispositions regarding children and teaching which, for the purpose of this study is defined as the

respondent's score on the Minnesota Teacher Attitude Inventory.

Cooperating teacher (supervising teacher). The classroom teacher in the public schools who is given the responsibility of working directly with the student teacher.

College coordinator. The person employed by a college or university to organize, coordinate, and supervise the student teaching experiences in a particular school or school system.

Student teacher. A college student in teacher education who is engaged in the process of acquiring first hand experiences in classroom teaching under the guidance and supervision of a cooperating teacher and college coordinator.

The student teaching experience. The period of guided teaching when the student takes increasing responsibility for the work with a given group of learners over a period of consecutive weeks.

Assumptions

1. While the manual for the Minnesota Teacher Attitude Inventory indicates that there are no "right" or "wrong" answers there is, rather, agreement or disagreement with specific attitude statements. To the extent that a respondent receives a high or positive score on the inventory, it means that he views the statements in

the inventory in the same way as persons who have been identified as being outstanding teachers view those same attitude statements. The assumption is that to have a high or positive attitude score is therefore desirable for teacher candidates.

2. A second fundamental assumption in this thesis is that the attitudes of a teacher are directly related to the type of classroom atmosphere he will be able to maintain and therefore may be instrumental to the kind of classroom teacher behavior exhibited.

Limitations of the Study

It should be noted that this study is limited to some extent by the nature of the sample selected. As will be stated in the discussion of the sample in Chapter III, the sample was not a random selection, but rather was limited to student teachers who were student teaching at the secondary level (grades 7-12). Furthermore, student teachers who comprise the sample were selected from only three of the sixteen student teaching centers included in the Michigan State University student teaching program. These centers were selected because they were judged to have a wide variety of possible teaching assignments and because of the availability of the student teachers for administration of the attitude inventory early in the first week of their student teaching experience.

Overview

It has been the intent in this chapter to convey to the reader a rationale for the importance of the role of attitudes in the professional education of teachers. The central problem has been stated and has been discussed specifically in terms of the need for this study.

In Chapter II prior studies that have been reported in the literature which have bearing on this study will be reviewed. Chapter III contains a discussion of the design of the study and includes a description of the sample, measures, and instrumentation used.

The presentation and analysis of the results gathered in this study will form the basis of Chapter IV. In the final chapter are summarized the results of the study, conclusions, recommendations, and possible implications for future research.

CHAPTER II

REVIEW OF LITERATURE

An examination of the research literature in education reveals a rather large number of studies relating to the specific topics of attitudes and the process of attitude modification. The Handbook of Research on Teaching,¹ for example, notes that more than fifty attitudinal studies using the Minnesota Teacher Attitude Inventory alone are reported in the literature. Many of these studies have been centered around the measurement of attitudes and attitudinal change among teachers and student teachers. The intent of many of the studies has been to determine whether significant differences exist between various groups (such as elementary-secondary, male-female, personality variants) in their attitudes toward selected variables (for example, children, methods of teaching, classroom atmosphere) often as a result of certain specific experiences (professional education courses, student teaching, specific kinds of academic preparation) which they undergo. The broad concern in

¹N. L. Gage, ed., Handbook of Research on Teaching (Chicago: Rand McNally and Company, 1967), p. 508.

nearly every such study has been to improve the teacher preparation curriculum in teacher education institutions by a recognition of attitudinal factors which may have relevance in the ultimate teaching performances of their teacher candidates.

In spite of the impressive numbers of studies that have been conducted simple generalizations about characteristics of teachers and teacher candidates and their classroom behaviors cannot yet be accurately drawn from present knowledge.² It is noted in the Encyclopedia of Educational Research that in the decades prior to 1961 little constructive research had been done in regard to attitudes of teachers, and no significant research had been done in regard to teacher anxieties.³ More recently, numerous studies have been conducted concerning attitudes of student teachers toward teaching. It appears that little was revealed by these studies other than changes in attitude are probable and may be dependent upon a number of variables. There is no consensus in the direction of expressed attitudinal changes of student teachers

²O. L. Davis, Jr. and Kaoru Yamamoto, "Teachers in Preparation: II. Professional Attitudes and Motivations," The Journal of Teacher Education, XIX, No. 3 (Fall, 1968), 365.

³Chester W. Harris and Marie R. Libya, eds., Encyclopedia of Educational Research (New York: The MacMillan Company, 1960), pp. 138-139, 940, 1359-1960.

as measured by various pre-test and post-test attitude instruments during the student teaching experience.⁴

In surveying recent studies on attitudes of student teachers it is possible to divide the various investigations into three groupings. In the first group are those studies whose findings indicate a positive change in attitude. The second group are studies which indicate negative changes, and the third group of studies are those whose findings suggest that there has been no significant changes in attitudes at all.

Studies Reporting Positive Change

Several studies report that there was a significant increase in positive attitudes as a result of student teaching experiences. In an early study (1956) Sandgren and Schmidt⁵ tested 393 student teachers both before and after their student teaching. Their study reported that both men and women showed significant positive attitudinal change during the period of student teaching. They noted also that the 232 senior women had significantly higher scores on the attitude inventory both before and after student teaching than did the 161

⁴JoAnn White, Research on Student Teaching, Research Bulletin, No. 5, The Association for Student Teaching, 1965, pp. 19-20.

⁵Duane L. Sandgren and Louis G. Schmidt, "Does Practice Teaching Change Attitudes Toward Teaching?" Journal of Educational Research, XLIX (May, 1956), 673-680.

senior men. In a 1968 study Campbell⁶ tested 72 student teachers using the Minnesota Teacher Attitude Inventory before and after eighteen weeks of student teaching at the University of South West Louisiana. Her findings indicate that one out of every two student teachers showed a positive change in attitude. Only one in five of the students tested had a negative change in attitude and one in four had no change at all. No attempt was made in her study to discover the reasons for the attitudes or anxieties of student teachers undergoing this change. In a similar study also done through the University of Houston, Jekel⁷ studied 66 student teachers and found that 45 per cent showed more desirable attitudes toward teaching after completing their student teaching experience.

At least two studies have been done to specifically relate the attitude of the student teacher to that of his cooperating teacher. In a study of 82 student teachers enrolled in teacher education institutions in Georgia, attitudes of student teachers appeared to be

⁶Gene Virginia Campbell, "A Descriptive Study of the Effects of Student Teaching Upon Attitudes, Anxieties, and Perceived Problems of Student Teachers" (unpublished Ph.D. dissertation, University of Houston, 1968).

⁷Eugene E. Jekel, "The Effect of Student Teaching on the Attitudes of the Student Teacher" (unpublished Ph.D. dissertation, University of Houston, 1966), p. vii.

affected by the attitude of their cooperating teachers. The Minnesota Teacher Attitude Inventory was administered before and after student teaching to the student teachers and was administered once to the cooperating teachers. The findings indicated that student teachers who worked with cooperating teachers whose attitudes toward pupils were deemed superior improved their attitudes significantly. Those student teachers who worked with teachers who had inferior attitudes toward pupils showed no significant attitudinal changes.⁸ In another such study done by Troisi⁹ he found a significant increase in student teachers' Minnesota Teacher Attitude Inventory scores during the student teaching experience even though he found no significant relationship between the scores of the student teachers and scores made by their cooperating teachers.

In research conducted relative to the development of positive attitudes toward teaching, Hough and Amidon¹⁰

⁸Owen Scott and Sterling G. Brinkley, "Attitude Changes of Student Teachers and the Validity of the Minnesota Teacher Attitude Inventory," Journal of Educational Psychology, LI (April, 1960), 76.

⁹Nicholas F. Troisi, "The Effect of Student Teaching Upon Student Teachers Objectives and Their Relation to Achievement and Attitudes Toward Children" (unpublished Ph.D. dissertation, Penn State University, 1959).

¹⁰J. Hough and E. J. Amidon, "An Experiment in Pre-Service Teacher Education (unpublished paper, American Education Research Association, February, 1964).

hypothesized that the attitudes student teachers develop toward teaching are in part a function of (1) the openness of their personality structures, (2) the way they view the teaching situation as being friendly or threatening, and (3) the extent to which their teaching behaviors are reinforced during student teaching. Their studies bore out the hypotheses. Student teachers who had relatively open belief systems and who had been taught Flanders Interaction Analysis showed greater change in attitudes toward the use of indirect teacher behavior as an expressed attitude toward teaching.

Studies Reporting Negative Change

A number of studies done on attitudes of student teachers also indicated negative rather than positive changes. While investigating the value of one method of self-appraisal in improving the attitudes of 242 student teachers toward pupils, Campbell¹¹ noted that the mean attitude scores on the Minnesota Teacher Attitude Inventory of both the control and experimental groups decreased after the period of student teaching. In an investigation

¹¹Carl Campbell, "An Experimental Investigation of the Value of One Method of Self-Appraisal in Developing Certain Attitudes Among Student Teachers" (unpublished Ph.D. dissertation, University of Virginia, 1962).

of attitude changes conducted by Dutton,¹² the attitudes of 91 student teachers were measured by the Minnesota Teacher Attitude Inventory before and after student teaching. A comparison of scores indicated that 78 per cent of the student teachers changed their attitudes in negative directions toward youth. Similarly, Weinstock and Peccolo¹³ found that students preparing to teach in elementary schools as well as students preparing to teach in secondary schools showed a consistent decrease in mean scores on the same instrument upon completion of their student teaching experience.

At least two studies have also been done which were designed to contrast the effect of the professional education courses with the effect of the student teaching experience. McCullough¹⁴ investigated two groups of prospective secondary teachers. He found that the mean scores on the Minnesota Teacher Attitude Inventory for both groups changed in a positive direction during the

¹²Wilbur H. Dutton, "Attitude Change of Elementary School Student Teachers and Anxiety," The Journal of Educational Research, LV (May, 1962), 381.

¹³Henry R. Weinstock and Charles M. Peccolo, "Do Students' Ideas and Attitudes Survive Practice Teaching?" The Elementary School Journal (January, 1970), 215.

¹⁴Henry E. McCullough, Jr., "A Comparison of the Change in Attitudes Toward Youth of Two Selected Groups of Student Teachers" (unpublished Ph.D. dissertation, North Texas State College, 1961).

period of accelerated professional education courses and in a negative direction during the period of student teaching. McEwin's¹⁵ study of the change in attitudes of students during their methods courses and student teaching revealed similar results. All sub groups in a total population of 367 students with the exception of the male elementary group indicated significant positive change in attitudes during methods courses and negative attitude change during the student teaching experience. In considering those factors which were most influential in causing the change in attitude, the personality of the cooperating teacher seemed to be the most significant factor.

Follow-up studies done on student teachers after they have begun teaching as a regular teacher indicate that a negative shift in attitude continues to take place. Medley, Mitzel, and Rabinowitz¹⁶ investigated the attitudes of student teachers and the attitudes of those same teachers after three years' experience in the elementary schools as regular teachers. The results of 343 pre and

¹⁵Tom McEwin, "Attitudinal Change of Students During Methods Courses and Student Teaching" (unpublished Ph.D. dissertation, East Texas State University, 1968).

¹⁶D. M. Medley, H. E. Mitzel, and W. Rabinowitz, "Longitudinal Studies of a Group of Teacher Education Graduates," The Journal of Teacher Education, X (March, 1959), 119.

post test Minnesota Teacher Attitude Inventory scores revealed a decrease in average score. The decline was associated with shifts from the more extreme options to the less extreme options of the inventory and an increase in emphasis on the importance of limits on pupil behavior and maintenance of high academic standards. Research conducted by Day¹⁷ involving student teachers at Florida State University revealed similar results. Day reported that the mean Minnesota Teacher Attitude Inventory scores of 154 seniors, both elementary and secondary, were lower immediately after the student teaching experience. Further research indicated the same sample of teachers after six months of teaching as regular teachers had less desirable attitudes toward pupils and teaching.

Studies Reporting No Change

Finally, there have been several studies reported in the literature which either resulted in no significant shifts in attitude or revealed results that were at best mixed and inconsistent. In examining various phases of 123 elementary education students' professional training, Cross¹⁸ found no significant change in attitude toward

¹⁷ Harry P. Day, "Attitude Changes of Beginning Teachers After Initial Teaching Experience," The Journal of Teacher Education, X (September, 1959), 327-328.

¹⁸ Arthur E. Cross, "A Comparative Analysis of the Expressed Attitudes of Elementary Education Students, Their University Instructors and Their Supervising

pupil-teacher relations as measured by the Minnesota Teacher Attitude Inventory during the semester of student teaching. Cross did find, however, that the leadership of supervising teachers who were ranked "low" on the inventory was associated with the retardation in the attitudinal growth of their student teachers. Price¹⁹ also noted that there was no significant difference between the students' initial and retest Minnesota Teacher Attitude Inventory scores. He did find a significant correlation between the 45 elementary student teachers and their supervising teachers' classroom performance as rated by the college supervisor. The student teachers' retest mean scores showed change in the direction of the mean scores attained by their supervising teachers. In a 1964 study done with student teachers Anderson²⁰ attempted to identify changes in beliefs about and attitudes toward four areas of education and teaching in secondary schools: (1) philosophy and objectives, (2) administration and supervision, (3) teachers and pupils,

Teachers Toward Pupil-Teacher Relations as Measured by the Minnesota Teacher Attitude Inventory" (unpublished Ph.D. dissertation, Indiana University, 1959).

¹⁹Robert D. Price, "Relations Between Cooperating Teachers and Student Teachers Attitudes and Performance" (unpublished Ph.D. dissertation, University of Texas, 1960).

²⁰Sara Elizabeth Anderson, "The Changes in Attitudes of Prospective Teachers Toward Education and Teaching in Secondary Schools" (unpublished Ph.D. dissertation, Indiana University, 1964).

and (4) teaching, extra class activities, discipline, physical facilities. The findings indicated that 50 per cent of 198 student teachers tested did not change their attitudes toward education and teaching. Some group changes were in a positive direction such as philosophy and objectives and teachers and pupils and in a negative direction toward administration and supervision and about teaching, extra class activities, discipline and physical facilities. The factors which student teachers thought were responsible for producing changes in attitudes, if they occurred, tended to fall into four categories:

(1) the people with whom the student teachers came into contact, (2) the effectiveness of the school program, (3) the energy, effort, and preparation needed for successful teaching, and (4) the attitudes formulated before the student teaching experience.

To determine if any changes in attitudes and in the selection of teaching practices occurred by student teachers after initial teaching experience, Nichols²¹ tested students at the University of Arkansas. He reported no significant changes in scores on the Minnesota Teacher Attitude Inventory but did report negative change in the ability to select desirable teaching practices as

²¹Lloyd George Nichols, "Changes in Attitudes and Selection of Teaching Practices After Student Teaching Experience" (unpublished Ph.D. dissertation, University of Arkansas, 1963).

measured by the Thompson Scale for Evaluating the Relative Significance of Secondary School Teaching Practices.

In an attitudinal study conducted by Corrigan and Griswold²² using fifth-year teacher education candidates, the researchers, using an attitude inventory developed specifically for their study, along with interviews with selected candidates, determined that student teaching did contribute to a change in student teachers' attitudes toward selected principles of guiding learning experiences. Positive and negative change depended upon the quality of their experiences as perceived by the student teachers. Change was also affected by the college supervisors and cooperating teachers with whom the students worked. There was greater positive change among the student teachers in the lower grades and the younger the student teacher the greater the change.

Discussion and Limitations of Prior Research

The research literature dealing with attitudes and attitudinal change as a result of student teaching experiences is voluminous but inconclusive. It appears that the development of the Minnesota Teacher Attitude Inventory in 1951, as an instrument designed to measure the attitudes

²²Dean Corrigan and Kenneth Griswold, "Attitude Change of Student Teachers," The Journal of Educational Research, LVII (October, 1963), 94.

of teachers toward pupils and toward teaching as a profession, has given rise to an increasing number of attitude studies during the 1950's and 1960's. Much of the research seemingly has had little impact on teacher education curricula in spite of the growing interest in teacher attitudes as expressed frequently in recent literature.

Some studies reported, however, may have missed important changes in attitude largely as a result of faulty design. Most researchers using the Minnesota Teacher Attitude Inventory have merely added gains and losses together for a total score canceling out the fact that some groups may have scored higher on some specific items and lower on others. Other changes in attitude were undoubtedly hidden when researchers took as a pre test measure the beginning of the last year of professional education courses which culminated in student teaching. If change occurs positively during professional education pre-student teaching courses but drops during student teaching, it may appear that there have been no significant changes at all.

Previous research has had little impact in teacher education mostly, however, because nearly all attitudinal studies have fallen short of examining closely those specific factors which may be most crucial in shaping attitudes of prospective teachers. Nearly all such

studies have concluded that changes in attitudes as a result of student teaching may be highly likely, but are at a loss to explain what specific factors in the student teaching experience may account for both the intensity and the direction of the changes. Some studies, as noted, suggest that at least one important factor influencing the direction of attitudinal change may be the cooperating teacher or the college supervisor. Professional education courses also seem to show positive reinforcement of attitudes, often in contrast to negative influences in student teaching. Much more study is needed in these specific areas, however, before any conclusive patterns develop for use in teacher education curricula.

Research on Minnesota Teacher Attitude Inventory

There is little question that the most frequently used instrument for the measurement of teacher attitudes is the Minnesota Teacher Attitude Inventory (MTAI).²³ The MTAI was primarily developed at the University of Minnesota, and the Manual published in 1959 reports:

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 has emerged from these researches. It is designed to measure those attitudes of a teacher

²³Gage, op. cit., p. 508.

which predict how well he will get along with pupils in interpersonal relationships, and indirectly how well satisfied he will be with teaching as a vocation.²⁴

Since the MTAI has been so widely used for the study of teacher attitudes and personality, and since it has been so frequently recommended for selecting prospective teachers, a number of investigations have been devoted to examining the character of the instrument itself. Among the questions most often asked about the inventory are: How liable is the Inventory to faking? To what extent might the results be due to response sets? What psychological factors do the attitudes represent?

Fakeability

The susceptibility of such self-report inventories to faking is often cited as their most glaring weakness. A number of studies have been done to determine the fakeability of the MTAI. The earliest of these investigations was by Callis.²⁵ He administered the MTAI to several groups of juniors in the University of Minnesota College of Education, first with normal instructions and then after several weeks with instructions to "get as high

²⁴W. Cook, C. H. Leeds, and R. Callis, Manual for Minnesota Teacher Attitude Inventory (New York: The Psychological Corporation, 1951), p. 3.

²⁵R. Callis, "Change in Teacher-Pupil Attitudes Related to Training and Experience," Educational and Psychological Measurement, X (1950), 718-727.

a score as possible." After controls such as test-retest gain or loss and sequences of testing were used Callis concluded that "the Inventory was found to be only slightly susceptible to attempts to fake good."²⁶

Coleman²⁷ tried a similar experiment but instead of college juniors he used 76 experienced teachers. The MTAI was administered twice, first with standard instructions and several days later with instructions to fill out the Inventory "as you might in applying for a teaching position in a school system known for its permissive atmosphere and pupil centered point of view."²⁸ A mean gain significant at the .01 level caused the investigators to state, "use of the MTAI as a major factor in hiring a teacher or accepting a student for teacher-training would not seem warranted in light of the instrument's susceptibility to faking."²⁹

Stein and Hardy,³⁰ however, in referring to both of these studies concluded that neither investigation established categorically whether or not the Inventory

²⁶Ibid., p. 725.

²⁷W. Coleman, "Susceptibility of the Minnesota Teacher Attitude Inventory to 'Faking' with Experienced Teachers," Educational Administration and Supervision, XL (1954), 234-237.

²⁸Ibid., p. 235.

²⁹Ibid., p. 236.

³⁰H. L. Stein and J. Hardy, "A Validation Study of the MTAI in Manitoba," Journal of Educational Research, L (1957), 321-338.

is significantly susceptible to faking. They also investigated the problem using instructions to fake as a traditionalist with one group and with another group as a progressivist and concluded from their studies that such findings do "not mean that the test is susceptible to faking, it means rather that the test is adequate in revealing a biased or prejudiced attitude toward children from either extreme position."³¹

The crucial question, however, which none of the studies answer is the extent to which the MTAI would be faked in an actual selection setting. Evidence presented in several studies would seem to suggest, however, that its use as a selection criterion should be guarded against, particularly where the subject might have some knowledge of the viewpoint endorsed by the selection agency.

Factor Analysis

Ferguson, Brown, and Callis³² following up a preliminary cluster analysis study by Callis and Ferguson where they were unable to discover meaningful psychological categories for the obtained clusters, did a factor analysis of the clusters and included tests of known

³¹Ibid., p. 7.

³²J. L. Ferguson, K. B. Brown, and R. Callis, "Factor Analysis of the Minnesota Teacher Attitude Inventory," Columbia, University of Missouri, 1954 (Rep. No. 4, ONR 649(00)).

psychological content to aid in the interpretation of results. The analysis indicated that the clustering of the items was found to be a function of the strength of the expressed attitudes of the teacher rather than of the substance of content of the items. The investigators concluded, "In terms of content, the evidence obtained so far suggests a single positive attitude factor is measured by the MTAI."³³

Response Sets

The most serious criticism of the MTAI has come from studies dealing with response set. Probably the most complete study of response sets and the MTAI is the work of Mitzel, Rabinowitz, and Ostreicher.³⁴ Their study identified three response sets. These response sets were Positive Intensity or the ratio of "Strongly Agree" to all positive responses; Negative Intensity or the ratio of "Strongly Disagree" to all negative responses; and Evasiveness or the number of "undecided" responses given by the subjects. The study reports that the negative intensity response set was found to influence the test scores in such a way that test validity was increased by

³³Ibid.

³⁴H. E. Mitzel, W. Rabinowitz, and L. M. Ostreicher, "Effects of Certain Response Sets on Valid Test Variance," New York: City Colleges, Division of Teacher Education, Office of Res. and Evaluation, 1955 (Res. Series No. 26).

its presence. Positive intensity was found to exert little effect on MTAI validity while evasiveness was found to be a weakening influence on the MTAI. The authors concluded, "From the standpoint of interpretation, the validity of the MTAI that is due to the content of the items should be kept separate from the validity that is accounted for by response set."³⁵

A second important study concerned with response sets and the MTAI was done by Budd and Blakely.³⁶ Their study asked two essential questions: (1) Is the scoring procedure for the MTAI biased in favor of the extreme responses? (2) What is the relationship between MTAI scores and the general tendency of respondents to chose either extreme or moderate response positions on the Inventory? From their findings they concluded that persons taking a moderate position on the items of the Inventory would indeed tend to score lower. As the investigators stated, "These data help to confirm the hypothesis that high scores on the MTAI are associated with the tendency to prefer extreme response positions to moderate response positions when taking this inventory."³⁷

³⁵ Ibid., pp. 20-21.

³⁶ W. C. Budd and Lynda S. Blakely, "Response Bias on the Minnesota Teacher Attitude Inventory," Journal of Educational Research, LI (1958), 707-709.

³⁷ Ibid., p. 709.

Gage, Leavitt, and Stone,³⁸ however, while recognizing that the MTAI is "loaded with acquiescence set," argue that acquiescence may be associated with "authoritarian" and "conformity" disposition. If this is true, the agree-disagree structure of the Inventory with an abundance of negative or authoritarian items make a positive contribution to the validity of the Inventory.

Summary

An examination of research on the Minnesota Teacher Attitude Inventory would seem to indicate that while the Inventory does appear to measure a single positive attitude factor regarding the items on the Inventory, it may under varying circumstances, be somewhat subject to fakeability and response set. It would seem that on this basis guarded use should be made of the Inventory when using it as a screening device for hiring a teacher or for accepting students into teacher training programs.

Where results are not used for either of these purposes, and when no duress or consequences are placed upon respondent's specific scores, it appears to be an appropriate instrument to assess the general nature of one's attitudes toward children and toward teaching as a vocation.

³⁸N. L. Gage, G. S. Leavitt, and G. C. Stone, "The Psychological Meaning of Acquiescence Set for Authoritarianism," Journal of Abnormal and Social Psychology, LX (1960), 280-283.

CHAPTER III

RESEARCH PROCEDURE AND METHODOLOGY

The Sample

The sample used in this study was selected from the Michigan State University student teacher population who were doing their student teaching during the spring term of 1970 at Michigan State University's various student teaching centers throughout the state of Michigan. The total spring term 1970 student teacher population was 969 students.¹ This number included student teachers who were in elementary education programs, secondary education programs, special education programs, and also students who were doing student teaching in preparation for a year as a teacher intern in Michigan State's Elementary Internship Program. In an effort to reduce the amount of variability caused by a sample which, randomly selected, could include students from each of these distinctly different programs, a sample was selected which included only students who were student teaching at the secondary level. The total secondary education population from among the 969 spring term student teachers was the largest

¹ Student Teaching Year End Report 1969-1970, Michigan State University, East Lansing, Michigan, 1970, p. 4.

group at 511.² From this group an initial stratified sample of 75 students or approximately 15 per cent was selected. As a result of unexpected enrollment drops and reassignments, this number was reduced to a final sample of 67 students, or approximately 13 per cent of the spring term secondary level student teachers.

An attempt was made in selecting the sample to include students who were student teaching in both urban and suburban school districts. In addition to selecting student teaching regional centers that contained schools where student teachers would be assigned that were both urban and suburban in nature, it was also necessary to select student teaching centers where group seminars for student teachers would be held early in the first week of student teaching. This was necessary since the pre-testing phase of the study had to be accomplished no later than the initial week of the student teaching experience. Geographic and time considerations precluded testing individually. The sample, therefore, is composed of students who were student teaching in the urban school districts of Lansing, Michigan, Jackson, Michigan, and Pontiac, Michigan; and the suburban school districts of East Lansing, Michigan and Bloomfield Hills, Michigan. It should be noted that it is not the intent of this

²Ibid.

study to compare student teachers by school districts. The social and economic composition of the student body within each school, however, is considered as a variable of the student teacher's assignment.

An examination of the sample selected revealed that 25 of the respondents were single and 42 were married. Thirty were male and 37 were female. Eighteen of the 30 males were in the married group and 24 of the 37 females were in the married group. Thirty-nine students were in the age bracket twenty-two or under, 19 were between the ages of twenty-three and twenty-five, one student between twenty-six and twenty-nine and eight of the total number of the sample were thirty years old or over.

The Design and Methodology

To conduct this study the Minnesota Teacher Attitude Inventory was administered to the sample during their first week of student teaching. The raw scores obtained by each student teacher were tabulated and recorded as pre-test scores. During the final week of student teaching the same form of the same instrument was again administered to the student teacher sample group. The raw scores obtained by each student teacher were tabulated and recorded as the post-test scores on the Inventory. By comparing each student teacher's pre-test score with

his post-test score it was possible to obtain a measure of the change of attitude, if any, which took place during the student teaching experience. In like manner it was then possible to tabulate and compare group means from the pre- and post-test scores of the entire sample and thus obtain a measure of the mean attitude of the group as measured by the Inventory, in addition to determining any group change in attitude upon completion of student teaching.

After completion of the post-test Inventory, the student teachers were also asked to completed a 22 item questionnaire which indicated demographic data about themselves and the nature of their student teaching assignments. It was then possible to compare each student's scores on the Inventory against each of the 22 variables of the questionnaire. It was therefore possible to determine whether there was any relationship between the scores on the attitude inventory as measured for each student teacher and the specific kind of student teaching assignment that he had. In addition it was then possible to examine the relationship between scores on the Minnesot Teacher Attitude Inventory and the way in which each student teacher perceived the personal results of his specific student teaching assignment.

The Instruments

The basic instrument used in this study is the Minnesota Teacher Attitude Inventory (MTAI). As indicated in the previous chapter, the Inventory is by far the most popular instrument used for the measurement of teacher attitudes.

The MTAI is designed to measure those attitudes of a teacher that have a bearing on the establishment of interpersonal relationships that are satisfying to both teachers and pupils. The intent of the instrument is to provide the examiner some indication as to how well satisfied the respondent will be with teaching as a vocation and how well he will get along with pupils in interpersonal relationships. The Inventory consists of 150 statements in five major areas:

1. Moral status of pupils in the opinion of adults (degree of adherence to adult imposed standards).
2. Discipline and problems of conduct in the classroom.
3. Principles of child development and behavior.
4. Principles of education (philosophy, curriculum, administration).
5. Teacher's personal reactions to children.

Although a number of publications relating to the MTAI appeared prior to publication of the Manual, it is the monograph by Leeds (1950), based on a dissertation completed in 1946, that presents most fully the rationale,

procedures, and basic findings on which the final form of the MTAI was established.³

The construction and validation of the instrument (originally called the Teacher Pupil Inventory) and the results obtained by Leeds⁴ may briefly be described as follows:

1. Selection of items for preliminary tryout.

On the basis of the literature on teacher-pupil behavior, 378 opinion statements representing teacher reactions to children and pupils were compiled and a Likert-type scale constructed. Sample items were: "Children should be seen and not heard," "The boastful child is usually overconfident of his ability," "Without children life would be dull." He then rewrote these statements into two forms, one positive and the other negative in wording, thus establishing a pool of some 700 items.

2. Validation and scoring of the try-out items.

A purely empirical rationale was applied. Validity was defined as the degree to which each of the selected items would discriminate between those teachers having the desired and those having the undesired types of relation with pupils. Two such criterion groups were established

³Gage, op. cit., p. 508.

⁴C. H. Leeds, "A Scale for Measuring Teacher-Pupil Attitudes and Teacher-Pupil Rapport," Psychological Monograph, LXIV, No. 6 (1950), 64.

by asking principals of 70 elementary and secondary schools in Pennsylvania and Ohio to designate several of their teachers who were "superior" and several who were "inferior" in their ability to maintain "harmonious relations" in the classroom as evidenced by "(1) Ability to win the affection of his pupils, (2) Fondness for, and understanding of children, (3) Ability to maintain a desirable form of discipline."⁵ One hundred "superior" and 100 "inferior" teachers completed two forms of the instrument, each containing about 380 items, a month apart, being assured on each occasion of complete anonymity. The forms bore surreptitious identification so that the responses could be collated, and chi square was computed to determine the extent to which each item discriminated between the two groups. One hundred and sixty-four items were chosen for use in the final inventory, and weighted and simplified scoring systems for the five responses to each item were developed on the basis of this empirically established differentiation.

3. Validity of the Inventory as a whole. Having thus constructed and empirically validated these teacher attitude items, Leeds then posed the crucial question: Would the Inventory as a whole differentiate among a random sample of teachers? Accordingly, he administered

⁵Ibid., p. 7.

the instrument in the established "anonymous" fashion to 100 teachers in Grades 4-6, inclusive, and correlated their scores with the following three criteria of teacher-pupil rapport: (1) Ratings of the teachers by their principals, (2) Classroom ratings of the teachers by Leeds himself on a modification of Baxter's Rating Scale of the Teacher's Personal Effectiveness, (3) Ratings of the teachers by their pupils on a 50 item "My Teacher" questionnaire. The correlations between these principal, observer, and pupil ratings and the Inventory were .434, .486, and .452, respectively, all significant at the .01 level. A combination of the three criteria gave a validity coefficient of .594. A multiple correlation of .595 between the Inventory and the three ratings was also obtained. The split-half reliability (with the Spearman-Brown correction) was .909.

Student Teacher Questionnaire

In addition to obtaining pre- and post-test measures of attitude using the Minnesota Teacher Attitude Inventory for each student teacher, it was necessary to obtain three additional kinds of information. To accomplish this task a 22 item questionnaire was constructed specifically for this study. This questionnaire was answered by the student teachers at the same time that the post-test MTAI was administered.

Items one through three on the questionnaire simply identified respondents as to age, sex, and marital status. Items four through ten and items 13 and 18 were designed to provide a description of each student's specific assignment. Items 11 and 12, items 14 through 17, and items 19 through 22 were constructed to elicit responses from student teachers regarding their feelings toward the situation characterizing their individual assignment as they perceived it.

Procedure for Analysis of Hypotheses

Hypothesis One: There will be no difference between mean post test scores on the Minnesota Teacher Attitude Inventory for Michigan State University student teachers when compared with national norms for secondary level graduating seniors in education for that instrument.

Criterion

To test this hypothesis all post-test raw scores on the MTAI were converted to percentile ranks. To test for difference between established national norms and this sample an arbitrary decision was made to consider a significant group difference as being the number of student teachers whose post-test scores would place them in the bottom quartile when compared with percentile ranks on national norms. To allow for error of measurement it was decided to use the thirtieth percentile rank as the point below which 50 per cent of the respondents' post-test scores must fall to reject this hypothesis.

Hypothesis Two: The attitudes of student teachers, as measured by the Minnesota Teacher Attitude Inventory, during completion of the student teaching experience will not show a significant difference from attitude measures obtained by the same instrument for the same student at the beginning of the student teaching experience.

Criterion

This hypothesis was analyzed using the standard t test for significance of change between the group mean of the pre-test and the group mean of the post-test.

Hypothesis Three: There is no difference in the attitude scores for student teachers as measured by the Minnesota Teacher Attitude Inventory, which result from various factors of the student teacher's assignment (placement).

Criterion

An analysis of variance was completed for each of the 22 items on the student teacher questionnaire and the scores on the MTAI. Expressed as an F test ratio each t value for each variable was considered significant if it reached the .05 level of confidence.

Hypothesis Four: Student teachers who change their attitudes significantly will not perceive themselves as experiencing such change.

Criterion

Each student teacher whose MTAI scores changed at or about a level one standard deviation above or below

the mean for the group was considered as changing significantly. Item 22 on the Student Teacher Questionnaire was then examined for indication of perceived change by those individuals. A Chi square test was used to determine the significance of the relationship between actual and perceived change.

CHAPTER IV

ANALYSIS OF RESULTS

Hypothesis One

There will be no difference between mean post test scores on the Minnesota Teacher Attitude Inventory for Michigan State University student teachers when compared with national norms for secondary level graduating seniors in education for that instrument.

Results

A total of 34 of the 67 student teachers had a post test raw score percentile rank equivalent which was below the thirtieth percentile rank (Table 4.1). This number represents 51 per cent of the total sample. A further examination reveals that the same 34 student teachers who ranked below the thirtieth percentile actually also rank below the twenty-fifth percentile. Nineteen students or 28 per cent of the total sample had scores which ranked them below the tenth percentile.

Applying the criterion selected for this analysis, hypothesis one is therefore rejected.

Hypothesis Two

The attitudes of student teachers, as measured by the Minnesota Teacher Attitude Inventory, during

TABLE 4.1.--Percentile rank equivalents.

Student	Pre Test Raw Scores	Post Test Raw Scores	Difference	Percentile Rank Equivalent
1	66	51	-15	23
2	47	48	1	19
3	50	91	41	81
4	37	77	40	64
5	60	93	33	83
6	-16	-45	-29	1
7	5	21	16	4
8	89	98	9	88
9	80	106	26	94
10	36	66	30	46
11	22	39	17	13
12	17	24	7	6
13	77	77	0	64
14	-12	42	54	15
15	-32	-22	-11	1
16	92	80	-12	68
17	54	84	30	73
18	16	38	22	11
19	-35	-44	-9	1
20	38	51	13	23
21	-23	-16	7	1
22	85	91	6	81
23	55	64	9	43
24	57	58	1	33
25	41	22	-19	4
26	78	77	-1	64
27	68	65	-3	45
28	34	39	5	16
29	44	70	26	59
30	38	71	33	55
31	76	82	6	70
32	98	70	-28	53
33	42	82	40	77
34	52	43	-9	19
35	84	76	-8	63
36	82	69	-13	51
37	8	20	12	4
38	77	76	-1	63
39	45	27	-18	8
40	-7	10	17	2
41	20	56	36	30
42	49	78	29	65
43	25	28	3	9
44	-17	-30	-13	1
45	54	32	-22	11
46	75	80	5	90
47	13	26	13	7
48	11	38	27	15
49	35	63	28	52
50	-1	22	23	4
51	18	38	20	11
52	-9	-18	-9	1
53	7	-14	-21	1
54	77	65	-12	45
55	31	51	20	23
56	6	42	36	18
57	3	37	34	10
58	16	10	-6	4
59	17	42	25	19
60	75	97	22	87
61	86	71	-15	55
62	36	60	24	37
63	37	30	-7	7
64	86	96	10	86
65	-10	27	37	9
66	50	66	16	49
67	-4	59	63	38

completion of the student teaching experience will not show a significant difference from attitude measures obtained by the same instrument for the same students at the beginning of the student teaching experience.

Results

To analyze the resultant data using the pre-test MTAI scores of the group and the MTAI post-test scores of the group, the mean of the difference score (gain score) was formed by subtracting the post-test score (MTAI-2) from the pre-test score (MTAI-1). If the resultant scores are negative (-) then the post-test scores are larger than the pre-test scores. If they are positive (+) then the reverse is the case. From the statistics in Table 4.2 it can be concluded that there is a significant difference ($t = 4.3147$) in the total group performance as measured by the MTAI and that the post-test scores are larger since the mean is negative (-10.776). This occurrence implies that there is a favorable change in attitude by the group as a result of the completion of the student teaching experience.

Hypothesis number two is therefore rejected.

Hypothesis Three

There will be no difference in the attitude scores for student teachers as measured by the Minnesota Teacher

TABLE 4.2.--Analysis of group difference.

	minimum value	maximum value	mean	stand. dev.	t of the mean
MTAI-1	-35.00	98.00	37.328	34.553	8.842
MTAI-2	-45.00	106.00	48.104	35.108	11.215
Diff	-63.00	29.00	-10.776	20.443	-4.314*

*Significant at the .05 level

Attitude Inventory which result from various factors of the student teacher's assignment (placement).

Results

To analyze this hypothesis it was necessary to consider each of the 22 items on the Student Teacher Questionnaire as a separate variable of the student teaching assignment (see Appendix A--Student Teacher Questionnaire). An analysis of variance was performed comparing each category within each of the variables with the MTAI scores of the respective students to determine if there were significant relationships between the attitudes held by each student and the specific factors of their assignment as they perceived it.

The following are the results for each variable.

TABLE 4.3.--Age as a factor.

1. When considering age as a factor:

Category	Number	Mean	Standard Deviation
22 or under	39	12.31	21.97
23-25	19	5.79	19.69
26-29	1	22.00	0.00
30 or over	8	13.75	14.66

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	760.68	3	253.56	.59	.62
Within	26822.97	63	425.76		
Total	27583.64	66			

Since .62 is not significant at the .05 level of confidence it appears that there is no relationship between age and attitude as measured by the MTAI for this group of students.

TABLE 4.4.--Sex as a factor.

2. When considering sex as a factor:

Category	Number	Mean	Standard Deviation
Male	30	6.80	19.03
Female	37	14.00	21.23

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	858.84	1	858.84	2.09	.15
Within	26724.80	65	411.15		
Total	27583.64	66			

Since .15 is not significant at the .05 level of confidence it appears that there is no relationship between a student's sex and his score on the MTAI.

TABLE 4.5.--Marital status as a factor.

3. When considering marital status as a factor:

Category	Number	Mean	Standard Deviation
Married	42	9.60	19.34
Single	25	12.76	22.44

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	156.96	1	156.96	.37	.54
Within	27426.68	65	421.95		
Total	27426.64	66			

Since .54 is not significant at the .05 level of confidence it appears that there is no relationship between a student's marital status and his score on the MTAI.

TABLE 4.6.--Grade level taught as a factor.

4. When considering grade level taught as a factor:

Category	Number	Mean	Standard Deviation
Junior high	33	7.97	22.79
Senior high	32	14.00	17.86
Both	2	5.50	20.51

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	648.17	2	324.09	.77	.46
Within	26935.47	64	420.87		
Total	27583.64	66			

Since .46 is not significant at the .05 level of confidence it appears that there is no relationship between the grade level in which the student did his student teaching and his score attained on the MTAI.

TABLE 4.7.--Subject area taught as a factor.

5. When considering subject area of student teaching as a factor:

Category	Number	Mean	Standard Deviation
English/Speech	11	10.00	20.62
Social Science	16	14.94	18.57
Math	3	15.33	23.59
Science	4	10.50	19.02
Physical Educ.	5	-1.40	25.24
Languages	2	19.50	23.33
Art	2	24.00	2.83
Music	3	24.67	36.23
Business	1	16.00	0.00
Home Economics	5	8.80	24.16
Other	2	-2.00	38.18
Mixed	13	5.77	17.26

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	2867.56	11	260.69	.58	.83
Within	24716.08	55	449.38		
Total	27583.64	66			

Since .83 is not significant at the .05 level of confidence it appears that there is no relationship between grade level taught and the respondents' scores on the MTAI.

TABLE 4.8.--Number of supervising teachers as a factor.

6. When considering the number of supervising teachers worked with by the student teacher as a factor:

Category	Number	Mean	Standard Deviation
One	56	11.77	20.96
More than one	11	5.73	17.54

Analysis of Variance					
Source	SS	df	MS	F	Significance
Between	335.48	1	335.48	.80	.37
Within	27248.16	65	419.20		
Total	27583.64	66			

Since .37 is not significant at the .05 level of confidence it appears that there is no relationship between the number of supervising teachers with whom a student teacher worked and his score on the MTAI.

TABLE 4.9.--Comparison of regular and cluster assignment.

7. When considering regular assignments as compared with a cluster assignment (10-12 students in one building who worked with a building consultant) as a factor:

Category	Number	Mean	Standard Deviation
Regular	53	9.77	19.77
Cluster	14	14.57	23.22

Analysis of Variance					
Source	SS	df	MS	F	Significance
Between	254.93	1	254.93	.60	.43
Within	27328.71	65	420.44		
Total	27583.64	66			

Since .43 is not significant at the .05 level of confidence it appears that there is no relationship between the type of assignment (cluster or regular) that a student teacher was in and his score on the MTAI.

TABLE 4.10.--Number of student enrollment as factor.

8. When considering the number of the student enrollment in the school in which the student teaching was done as a factor:

Category	Number	Mean	Standard Deviation
Under 750	7	-3.86	17.86
751-1000	12	16.25	21.29
1001-1500	27	13.04	20.34
Over 1500	21	9.62	19.88

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	2024.62	3	674.87	1.66	.18
Within	25559.02	63	405.70		
Total	27583.64	66			

Since .18 is not significant at the .05 level of confidence it appears that there is no relationship between the number of pupils in the school in which the student teaching was done and the student teacher's score on the MTAI.

TABLE 4.11.--Socio-economic status of student body as a factor.

9. When considering the socio-economic status of the student body in the school in which the student teaching was done as a factor:

Category	Number	Mean	Standard Deviation
Lower class	17	11.71	17.73
Middle class	39	10.72	21.88
Upper middle and upper	11	9.55	20.82

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	31.49	2	15.74	.04	.96
Within	27552.15	64	430.50		
Total	27583.64	66			

Since .96 is not significant at the .05 level of confidence it appears that there is no relationship between the socio-economic status of the student body of the school in which the student teaching was done and the student teacher's score on the MTAI.

TABLE 4.12.--Racial composition of student body as a factor.

10. When considering the racial composition of the student body of the school in which the student teaching was done as a factor:

Category	Number	Mean	Stand. Dev.
100% White	4	27.00	7.40
Less than 5% Black, Span Amer.	11	6.00	19.17
More than 5% but less than 15%	30	12.80	22.91
More than 15% but less than 35%	14	6.64	17.39
More than 35% Black, Span Amer.	8	8.88	20.34

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	1694.75	4	423.69	1.01	.40
Within	25888.89	62	417.56		
Total	27583.64	66			

Since .40 is not significant at the .05 level of confidence it appears that there is no relationship between the racial composition of the student body of the school in which the student teaching was done and the attitudes formed by the student teacher as measured by the MTAI.

TABLE 4.13.--Consistency of grade level as a factor.

11. When considering whether the student teacher's assignment was consistent with his original teaching plans for grade level as a factor affecting his attitude:

Category	Number	Mean	Standard Deviation
Yes	48	14.27	20.95
No	19	1.95	16.48

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	2067.22	1	2067.22	5.27	.02
Within	25516.43	65	392.56		
Total	27583.64	66			

Since .02 is significant at the .05 level of confidence it appears that there is a relationship between a student teacher's attitude and whether he is student teaching at the grade level of his choice. This relationship suggests that those student teachers who were student teaching in the grade level of their choice tended to have higher scores on the Minnesota Teacher Attitude Inventory upon completion of student teaching than those student teachers whose student teaching assignments were not consistent with their choice for grade level.

TABLE 4.14.--Consistency of subject area as a factor.

12. When considering whether the student teaching assignment was consistent with the student teacher's plans for teaching a particular subject or course:

Category	Number	Mean	Standard Deviation
Yes	53	12.02	20.85
No	14	6.07	18.77

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	391.73	1	391.73	.94	.33
Within	27191.91	65	418.34		
Total	27583.64	66			

Since .33 is not significant at the .05 level of confidence it appears that there is no relationship between a student teacher's attitude as measured by the MTAI and whether or not his student teaching assignment was consistent with his original plans for teaching in a particular subject or course.

TABLE 4.15.--Pre-student teaching activities as a factor.

13. When considering whether a student teacher had had prior contacts (pre-service activities) with secondary students before student teaching:

Category	Number	Mean	Standard Deviation
None	22	12.77	21.58
1-2 contacts	11	13.09	22.45
3-5 contacts	10	10.70	20.39
6 or more contacts	24	7.92	19.42

Analysis of Variance					
Source	SS	df	MS	F	Significance
Between	342.94	3	114.31	.26	.85
Within	27240.71	63	432.39		
Total	27583.64	66			

Since .85 is not significant at the .05 level it appears that there is no relationship between a student teacher's attitude score on the MTAI and whether he had prior contacts (pre-service activities) with secondary students before student teaching.

TABLE 4.16.--Facilities of the building as a factor.

14. When considering the facilities of the building in which the student teaching was done as a factor:

Category	Number	Mean	Standard Deviation
Excellent	15	10.27	22.47
Good	35	10.38	19.95
Fair	16	13.00	21.05
Poor	2	3.50	23.33

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	194.18	3	64.73	.15	.93
Within	27389.46	63	434.75		
Total	27583.64	66			

Since .93 is not significant at the .05 level of confidence it appears that there is no relationship between the facilities of the specific building in which the student teaching was done and the attitude scores of the student teachers on the MTAI.

TABLE 4.17.--Overall abilities of teaching staff as a factor

15. When considering the overall abilities of the teachers on the regular staff of the building as a factor:

Category	Number	Mean	Standard Deviation
Excellent	14	14.71	24.08
Good	38	6.37	19.39
Fair	15	18.27	17.60
Poor	0	0	0

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	1797.01	2	898.50	2.23	.11
Within	25786.63	64	402.92		
Total	27583.64	66			

Since .11 is not significant at the .05 level of confidence it appears that there is no relationship between the overall ability of the teachers on the regular faculty of the building, as perceived by the student teachers, and the attitude scores of the student teachers on the MTAI.

TABLE 4.18.--Principals' rapport with staff as a factor.

16. When considering the principal's rapport with his staff as a factor:

Category	Number	Mean	Standard Deviation
Excellent	19	14.58	22.06
Good	21	17.86	20.01
Fair	23	2.57	18.49
Poor	4	2.75	7.50

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	3236.04	3	1045.35	2.69	.05
Within	24447.61	63	388.06		
Total	27583.65	66			

Since .05 is significant at the .05 level of confidence it suggests that there is a relationship between the principal's rapport and professional relationship with his staff in the building in which the student teacher taught, as perceived by the student teachers, and the attitudes, as measured by the MTAI, subsequently developed by the student teacher.

This relationship is that those student teachers who saw the principal's rapport and professional relationships with his building staff as fair or poor tended to have lower post test scores on the attitude inventory than did those student teachers who saw the relationship as excellent or good.

TABLE 4.19.--Teacher's attitudes toward central administration.

17. When considering the attitudes of teachers in the building toward the central administration as a factor:

Category	Number	Mean	Standard Deviation
High	13	23.62	15.85
Generally	45	7.13	20.22
Little	9	10.44	21.91

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	2741.14	2	1370.57	3.53	.03
Within	24842.50	64	388.16		
Total	27583.64	66			

Since .03 is significant at the .05 level this suggests a relationship between the attitudes developed by student teachers and the attitudes of the building staff toward the central administration. Those who perceived the relationship as "highly respectful" had higher attitude scores on the MTAI than those who felt little respect existed. Those who saw the relationship as

"generally respectful" did not differ significantly from those who saw it as "little respect."

TABLE 4.20.--Ability groupings of classes as a factor.

18. When considering whether the classes in which the student teaching was done were grouped by ability:

Category	Number	Mean	Standard Deviation
Yes	17	12.25	25.64
No	50	10.24	18.63

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	56.64	1	56.64	.13	.71
Within	27527.00	65	423.49		
Total	27583.64	66			

Since .71 is not significant at the .05 level of confidence it suggests that there is no relationship between the attitude score of a student teacher on the MTAI and whether or not the classes in which he taught were grouped by some measure of ability.

TABLE 4.21.--Age of supervising teacher as a factor.

19. When considering the age of the supervising teacher as a factor in the student teacher's ability to work well with them:					
Category	Number	Mean	Standard Deviation		
Yes	22	10.14	21.94		
No	45	11.09	19.92		
Analysis of Variance					
Source	SS	df	MS	F	Significance
Between	13.41	1	13.41		.85
Within	27570.24	65	424.16	.03	
Total	27583.65	66			

Since .85 is not significant at the .05 level of confidence it appears that there is no relationship between the age of the supervising teacher and the subsequent attitudes developed by the student teachers as measured by the MTAI.

TABLE 4.22.--Sex of supervising teacher as a factor.

20. When considering the sex of the supervising teacher as a factor in the student teacher's ability to work well with them:					
Category	Number	Mean	Standard Deviation		
Yes	20	13.90	18.02		
No	47	9.45	21.44		
Analysis of Variance					
Source	SS	df	MS	F	Significance
Between	278.22	1	278.22	.66	.41
Within	27305.42	65	420.08		
Total	27583.64	66			

Since .41 is not significant at the .05 level of confidence it suggests that there is no relationship between the sex of the supervising teacher and the attitude subsequently developed by the student teacher as measured by the MTAI.

TABLE 4.23.--Specific assignment as a factor.

21. When considering the particular student teaching assignment as a factor which significantly affected the student teaching outcome:

Category	Number	Mean	Standard Deviation
Yes	37	8.86	19.67
No	30	13.13	21.46

Analysis of Variance

Source	SS	df	MS	F	Significance
Between	301.85	1	301.85	.72	.40
Within	27281.79	65	419.72		
Total	27583.64	66			

Although 37 students (55 per cent) answered that they felt the particular assignment which they had did affect their attitude in some way and their effectiveness as a teacher would have been different in a different kind of assignment, there appeared to be no statistically significant relationship (.40) between attitude scores on the MTAI for those who answered yes, or for those who answered the question no.

In summary, out of the total number of variables considered by the study as factors of the student teacher's assignment, three did have a statistically significant relationship. It appears, therefore, that the specific nature of the student teacher's assignment does have an effect upon the professional attitudes subsequently developed by the student teacher.

Hypothesis three is therefore rejected.

Hypothesis Four

Student teachers who change their attitudes significantly will not perceive themselves as experiencing such change.

Results

To determine which students are to be considered as having changed their attitudes significantly as a result of the student teaching experience, an arbitrary decision was made to consider any difference score which fell one standard deviation above or below the mean as being a significant change. Since the mean difference score for the group was -10.776 and the standard deviation of the difference was 20.443 any difference score which is equal to or less than -31.219 or equal to or greater than 9.667 will be considered as significant for this study. An examination of the difference scores reveals a total of 33 students whose scores would indicate a

significant change in attitude for them. Of this total number, 17 answered item number twenty-two on the Student Teacher Questionnaire by saying they felt that they had experienced no significant change in attitudes as a result of student teaching. The other 16 students did indicate that they felt differently in their attitudes as a result of their student teaching experience.

TABLE 4.24.--Test for difference between perceived and significant change.*

Changed Significantly	Perceived		
	Yes	No	
Yes	16	17	33
No	18	16	34
	34	33	67

$$*\chi^2 = .13305 \quad df = 1$$

The computed value chi-square is equal to .133. The value of chi-square for the .05 level of significance is 3.841. Since the computed value of chi-square is less than the critical value, it is concluded that there is no way of determining real change from perceived change and vice-versa.

Hypothesis four is therefore not rejected.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of this study has been to explore the effects of the student teaching experience and the individual student teaching assignment upon the educational attitudes of student teachers at Michigan State University. Specifically, the study was designed to provide some degree of evidence which might help answer three basic questions involving student teacher attitudes and the relationship of the student teaching experience to the modification of those attitudes. The first question to be answered was whether Michigan State University student teachers, upon completion of their student teaching experience and therefore nearly all of their undergraduate professional training in education, have developed and maintained a strong set of positive attitudes toward children and toward teaching as a vocation. The second question to be answered by this study was whether or not the student teaching experience itself played a significant role in the modification of those attitudes and in what ways. The final question to be answered by this study was whether the specific and particular assignment

or student teaching placement that each student teacher was given had any significant relationship to the subsequent attitudes which were developed toward children and toward teaching on the part of student teachers.

To provide evidence to be used in seeking answers to these questions, four hypotheses were formed and subsequently tested using the Minnesota Teacher Attitude Inventory and a specifically constructed Student Teacher Questionnaire as the basic data gathering instruments.

The following hypotheses were tested:

1. There will be no difference between mean post test scores on the Minnesota Teacher Attitude Inventory for Michigan State University student teachers when compared with national norms for secondary level graduating seniors in education for that instrument.
2. The attitudes of student teachers, as measured by the Minnesota Teacher Attitude Inventory, during completion of the student teaching experience will not show a significant difference from attitude measures obtained by the same instrument for the same students at the beginning of the student teaching experience.
3. There is no difference in the attitude scores for student teachers as measured by the Minnesota Teacher Attitude Inventory which result from various factors of the student teacher's assignment (placement).
4. Student teachers who change their attitudes significantly will not perceive themselves as experiencing such change.

Conclusions

An examination of the data relating to these hypotheses revealed the following conclusions:

1. Fifty-one per cent of the total number of student teachers tested during completion of the student teaching experience had attitude scores, as measured by the Minnesota Teacher Attitude Inventory, which were below the twenty-fifth percentile rank scores established as norms for the Inventory. Twenty-eight per cent of the sample had scores which were below the tenth percentile rank.

2. The attitudes held by student teachers in Michigan State University's student teaching program were significantly altered or modified as the result of the student teaching experience provided those students.

3. Those attitudes held by student teachers prior to student teaching were changed significantly in a positive direction as a result of their student teaching experience. There were more students who experienced an increase in their Inventory scores upon completion of student teaching than there were students whose scores decreased after student teaching.

4. There was no significant relationship between the scores of student teachers on the MTAI and the following aspects of their student teaching assignments (placements):

- a. the age of the student teacher
- b. the sex of the student teacher
- c. the marital status of the student teacher

- d. the grade level (junior high, senior high, or both) in which the student teaching was done.
- e. the subject area in which the student teaching was done.
- f. whether a student teacher worked with one supervising teacher or more than one.
- g. whether the assignment was a regular assignment or a cluster assignment (involving 10-12 student teachers in a building with a building consultant).
- h. the size of the student enrollment of the school in which the student teaching was done.
- i. the socio-economic composition of the student body of the school in which the student teaching was done.
- j. the racial composition of the student body of the school in which the student teaching was done.
- k. whether the assignment was consistent with the student teacher's original plans for teaching a particular subject or course.
- l. whether the student teacher had any pre-student teaching contacts with secondary school students.
- m. the facilities of the school in which the student teaching was done.

- n. the overall ability of the teachers on the regular faculty of the building in which the student teaching was done.
 - o. whether pupils in classes taught by student teachers were grouped according to some measure of ability.
 - p. the age of the supervising teacher.
 - q. the sex of the supervising teacher.
5. There was a significant relationship between the scores of student teachers on the MTAI and the following aspects of their student teaching assignments (placements).
- a. whether a student teacher's assignment was consistent with his original plans for teaching in a particular grade level. This relationship suggests that those student teachers who were assigned to student teaching placements which were consistent with their original teaching plans for grade level had significantly higher, and therefore more positive, attitude scores than those student teachers who did not receive such assignments.
 - b. whether the student teaching was done in a building in which the rapport of the principal with his staff was rated excellent as opposed to poor. This relationship suggests that

those student teachers who were student teaching in buildings where the principal's rapport with his staff was perceived as excellent or good had significantly higher, and therefore more positive attitude scores than those student teachers who student taught in buildings where the principal's rapport with his staff was rated as fair or poor.

- c. whether the overall feeling of the teachers in the building in which the student teaching was done was highly respectful or of little respect toward the central administrative staff of the school district. This relationship suggests that those student teachers who were student teaching in buildings where the building staff was highly respectful of the central administrative staff of the school district tended to have significantly higher, and therefore more positive, attitude scores than those student teachers who were in buildings where the teachers had little respect for the central administration of the school district.

6. Student teachers who experience a significant change in their educational attitudes as a consequence of their student teaching, do not necessarily perceive

themselves as having changed in their attitudes in any significant way.

Discussion and Recommendations

In the introduction to this study the position was taken that what may well be needed in teacher education today is a model for the professional preparation of teachers which is heavily oriented toward examining and confronting the existence of basic attitudes and orientations toward people which may have far reaching import for what happens between teacher and pupil in the classroom. There is little disagreement that few occupations demand such continuous human interaction, with the constant intent to influence the behavior of others.

It should be made clear that this model need not be exclusive of, but rather in addition to, teacher training which provides teacher candidates with some basic skills, methods and techniques which they will need in the classroom. This study was based upon the premise that teacher candidates are for the most part arriving at the end of their undergraduate professional education with an adequate set of cognitive skills with which to operate in the classrooms, but that many may be severely lacking in certain affective levels of professional development, namely that their attitudes toward teaching and children may become so negative, and their own ability for self-understanding so limited, that they become frustrated in

their attempts to ply their skills in the most effective manner which would allow them to become outstanding teachers.

In the sample of students selected for this study there is some evidence to suggest that many students may not be acquiring and retaining a strong set of positive attitudes toward children and toward teaching as a vocation as a result of their professional preparation at this institution. Over half of the total sample ended their student teaching experience, and for most their entire undergraduate education, with a set of attitudes at least on one measure, which ranked them in the bottom quartile on norms established by similar groups in various areas of the country. If this sample is representative of current teacher candidates, then it would seem to indicate that a close examination of current programs is in order. This examination should determine the extent to which the current teaching programs are helping students develop an interest in, and awareness of, the way in which they view the schools and its children, and specifically its potential effects on their classroom behaviors. Whether it is the enormity of the numbers of students in the teacher education program at this institution, whether it is the currently changing and often volatile nature of the cooperating schools with their faculties and students in this state, or whether it is

any one of the many possible conditions affecting the attitudes of teacher candidates, the teacher education program must recognize that at best much of teaching is operated under stress conditions. The reactions to these stress situations inevitably result in the formation or modifications of attitudes which may be inappropriate for the specialized roles required in teaching. Hence a teacher education model (particularly in the student teaching experience) must provide an opportunity to analyze such attitudes that teacher candidates develop in the face of that stress. The candidate must be helped to test the appropriateness of his feelings and develop rational and positive attitudes to meet the conditions of teaching which he encounters.

It appears also that the building of positive and healthy attitudes involving children and teaching must be a continuous process in teacher education programs since teacher attitudes are subject to change in a negative as well as positive direction at varying points throughout the teacher education program. At least one area of the teacher preparation curriculum where significant changes in attitude can be expected to occur is the student teaching experience. In this study the student teacher group did experience significant change in attitudes as a result of student teaching. This change was in a positive direction.

It follows that to maximize the probability of providing a positive student teaching experience for each student teacher, greater attention may need to be given to the specific student teacher placement or assignment particularly if there is any relationship between the kind of an assignment that a student has and the attitude that he may subsequently develop during his student teaching. This study suggests that some factors of the student teaching assignment may be far more important than others. For this sample of student teachers three aspects of the student teaching assignment seemed to be of special significance in the effect that it may have had upon subsequent attitudes formed. Students who were assigned to schools where the principal's relationship and professional rapport with his building faculty and staff were rated as poor had significantly lower attitude scores than those who were in buildings where this relationship was considered excellent. Similarly, students assigned to buildings where prevailing attitudes of the faculty and staff toward the central administration was one of little respect had significantly lower attitude scores than those who were in buildings where this relationship was considered highly respectful. These results suggest that attitudes that student teachers develop may be highly influenced by the emotional climate and general hostility level which may exist in a specific building. The faculty

lounge conversations, for example, may provide a kind of negative influence for young student teachers. Where low faculty morale and poor interpersonal relationships exist these factors may be instrumental in causing teacher candidates to feel less enthusiasm toward teaching as a career and to feel more negative toward his pupils as his frustration and disillusionment mounts.

The third factor of the student teacher assignment which appeared to be especially significant involved the student's own expectations in regard to their assignments. It appears that teacher candidates do not translate their desire to teach as simply the chance to work with young people in any given classroom, but rather in more specific terms such as the chance to teach at a specific grade level. In this study students who did not receive assignments in the secondary schools consistent with their original plans for specific grade level had significantly lower attitude scores than those students whose assignment was at the specific level they wanted. Ironically, while there was a significant difference involving grade level, there was no significant difference in attitude scores for those who were teaching particular courses or subjects which were consistent with their original plans as opposed to those who were not. The average attitude scores of those who were teaching in subject or course consistent with their original desires for teaching were, however,

approximately twice as high as the average scores for those who were not. The optimum assignment, therefore, in terms of its possible effect on teaching attitudes would be to place a student at the specific grade level he desires to teach, in classes where the course content focuses on his specific interests in subject area. Where this is not possible, the second best assignment may be to the specific grade level desired, but in a subject or course which may not be the first choice of the student teacher. For many students, for example, this means that they would be happier teaching in their minor area of preparation at the senior high level rather than teaching in their major area at the junior high level if they originally desired senior high. It may also be noted that in this study the mean attitude scores for student teachers whose student teaching was done at the senior high level were nearly twice as high as the mean attitude scores for those who taught at the junior high level. Although much more study is needed, these data suggest that much greater reinforcement of positive attitudes may be needed for student teachers in the junior high schools, whether they are there by having chosen this grade level or not. Teacher training programs must, therefore, recognize the unique problems existing in junior high school teaching and devise programs which give special attention to this level of teaching. It suggests also that greater emphasis

may need to be given to teacher candidates to promote a more child-centered rather than grade-subject centered approach to viewing teaching.

The results of this study would indicate, however, that other factors of the assignment seem to be of less importance in terms of their effects on attitudes. The sex of the supervising teacher, the age of the supervising teacher, and the number of supervising teachers a single student worked with appeared to have little effect on student teacher's attitudes. Similarly, the building facilities, the racial and socio-economic composition of the student body, the total student enrollment in the building, the overall ability of the teachers on the building staff, and whether the classes are or are not grouped by some measure of ability do not appear to be highly important factors in terms of their effect on attitude modification. While there was no significant difference between students assigned to a cluster assignment and those in a regular assignment, those who were assigned to clusters did have a higher mean score. This result is in agreement with a recent study by Chase¹ who found a significantly higher attitude score for students

¹Donald 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 Ph.D. dissertation, Michigan State University, 1971).

who taught in a cluster type program than students who were in traditional assignments.

Of interest also when examining the data from this study is the fact that those students who underwent a significant change in their attitude as a result of student teaching did not, when asked, perceive themselves as having changed. This would seem to suggest that attitudes may be difficult to observe directly through some form of self-examination, but rather must be inferred from some form of human behavior analysis which requires the help of others. It suggests also that individuals may indeed adopt attitudes which are discrepant from what they profess to believe. Hence to examine attitudes student teachers must ultimately be helped to see their classroom behavior. As Judson Shaplin² has pointed out,

The isolation of teachers from critical appraisal of their work by other adults of equal or greater capacity is one of the distinctive features of the organization of the American schools. Major reliance must be placed upon the ability of the teacher to analyze and criticize his own work. . . . Student teaching must be organized to be able to handle this kind of analysis, and we need a systematic analysis of the role of the teacher in the schools, and criteria for evaluating the appropriateness of behavior in this role.

Implications for Further Research

Certainly no single study can hope to provide conclusive answers to hypotheses which have been

²Elmer R. Smith, ed., Teacher Education (New York: Harper and Row, 1962), pp. 80-124.

formulated. As is often the case, additional concerns may be raised as a result of such a single investigation. The following questions seem to arise as possibilities for further related study.

1. Much effort has been spent assessing cognitive areas of development of teachers while relatively little effort, by comparison, has been spent in the affective domain. More general research is needed in this area, particularly in the development of more sophisticated instruments for assessing affective development and growth. In the area of attitudes, a better instrument than the Minnesota Teacher Attitude Inventory needs to be developed. The MTAI itself needs to be analyzed to determine if teachers identified as "superior" teachers in schools of the 1970's answer the items in the same manner as "superior" teachers did in the 1940's and early 1950's when the Inventory was developed.

2. It appears that junior high school teaching presents a special set of problems apart from senior high teaching. A fruitful area of study would be to isolate some of the variables which are most significant in the teaching differences between these two levels. This could contribute to the development of a special curriculum for the preparation of junior high teachers.

3. If such programs as the cluster program produce a better attitude among student teachers upon

completion of their experiences in the classrooms a significant study might be to determine what the most important factors seem to be in this program that seem to provide more positive influences and reinforcement for student teachers. Is the feeling of teamwork and total faculty involvement a crucial factor? Is the flexibility of the program a crucial factor? Is the presence of the clinical consultant a crucial factor? Is the mutual support of many student teachers in the same building a significant factor?

4. Additional studies need to be done to examine the relationships between attitudes and various classroom behaviors. Do student teachers with highly negative attitudes toward pupils and teaching encounter greater problems in classroom discipline? Is creativity in the classroom a function of teacher attitude?

5. An investigation of student teacher perceptions of schools, classrooms, pupils, and teacher roles prior to student teaching as compared to their perceptions of those same elements after student teaching. Is there severe dissonance between these two sets of perceptions which account for poor attitude, role conflict, and professional dissatisfaction?

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APPENDICES

APPENDIX A

STUDENT TEACHER QUESTIONNAIRE

STUDENT TEACHER QUESTIONNAIRE

DIRECTIONS: Please circle the response choice which best designates your status, student teaching assignment, or your feelings toward your student teaching experience.

1. What is your age?

22 or under

23-25

26-29

30 or over

2. Are you

Male

Female

3. Are you

Married

Single

4. Where did you do your student teaching?

Junior high

Senior high

Both

5. What subject area constituted your teaching assignment?

English or Speech

Phys Ed

Business

Social Sciences

Languages

Home Economics

Math

Art

Other

Sciences

Music

6. Did you work with one supervising teacher or more than one?

One

More than one
7. Was your assignment a regular student teaching assignment or were you part of a cluster program where you worked with a building consultant?

Regular

Cluster
8. Was the student enrollment of your school

Under 750

751-1000

1001-1500

Over 1500
9. Was the student body of your school predominantly

Lower socio-economic class

Middle socio-economic class

Upper middle and upper class
10. Was the racial composition of the student body in your school approximately

100% White

Less than 5% Black, Spanish-American, other

More than 5% but less than 15% Black, Spanish-American, other

More than 15% but less than 35% Black, Spanish-American, other

More than 35% Black, Spanish-American, other

11. Was the student teaching assignment that you received consistent with your original teaching plans for grade level?

Yes

No

12. Was the student teaching assignment that you received consistent with your original plans for teaching in a particular subject or course?

Yes

No

13. Prior to doing your student teaching, did you have any contact with secondary school students (pre-student teaching experiences, i.e., case studies, observations, volunteer tutoring, etc.)?

None

1-2 contacts

3-5 contacts

6 or more contacts

14. How would you rate the building in which you did your student teaching in terms of its facilities?

Excellent

Good

Fair

Poor

15. How would you rate the overall ability as teachers of the total regular faculty in your school?

Excellent

Good

Fair

Poor

16. How would you rate the principal's rapport and professional relationship with his staff in the building in which you student taught?

Excellent

Good

Fair

Poor

17. In your opinion what seemed to be the overall feeling of teachers whom you knew in your building toward their central administrative staff (Supt., etc.)?

Highly respectful

Generally respectful

Little respect

18. Were the classes which you taught grouped by the school according to some measure of ability (slow learner, general, college prep., etc.)?

Yes

No

19. Did you feel that the age of your supervising teacher was a significant factor in your ability (or inability) to work well with them?

Yes

No

20. Did you feel that the sex of your supervising teacher was a significant factor in your ability (or inability) to work well with them?

Yes

No

21. Do you think your particular student teaching assignment affected your teaching effectiveness (positively or negatively) and that your effectiveness as a teacher would have been significantly different in another kind of assignment?

Yes

No

22. Examining your own attitudes and beliefs about teaching and about children which you feel you hold at this moment, do you feel they are significantly different than your feelings before you student taught?

Yes

No

APPENDIX B

MINNESOTA TEACHER ATTITUDE INVENTORY

PLEASE NOTE:

Pages 94-97, "Minnesota Teacher Attitude Inventory", copyright 1951 by The Psychological Corporation, not microfilmed at request of author. Available for consultation at Michigan State University Library.

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