# Attitude Change in Student Teachers and Its Relationship to Cooperating Teachers' Ratings of Student Teachers 

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# , 者 <br> ATTITUDE CHANGE IN STUDENT TEACHERS <br> AND ITS RELATIONSHIP TO COOPERATING TEACHERS' RATINGS OF STUDENT TEACHERS 

A Thesis<br>Presented to the Graduate Faculty Central Washington State College

In Partial Fulfillment of the Requirements for the Degree Master of Education

## by

Dennis Charles Hudson
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# APPROVED FOR THE GRADUATE FACULTY 

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#### Abstract

\section*{ABSTRACT}

Attitudes (MTAI) and teacher preferences (PICS) of 143 student teachers were measured for amount of change occurring from pre to posttest. The change had no relationship to 89 cooperating teachers' ratings of 89 student teachers. The change also had no relationship to attitudes and preferences of cooperating teachers.

Elementary student teachers showed different attitudes from junior high or high school student teachers. There was a greater preference for affective teacher characteristics at all levels.

There was little relationship between PICS and MTAI for student teachers, and slightly higher for cooperating teachers.

66 Introduction to Education students increased MTAI scores over the same period student teachers' MTAI scores decreased. Moderate response set or "reality shock" was hypothesized.


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CHAPTER I
PROBIEM AND DEHINIMICiV OF TERMS
PROBLEM
Many professions provide an opportunity for the trainee to see how it feels to do the work of the professional practitioner. Student teaching is that initial experience for the college student with career expectations in education. The teacher trainee directs the learning of a group of pupils under the observation of a qualified cooperating teacher. The program is so planned that the student teaching experience is the culmination of several years' training in the attainment of attitudes, skills, and knowledge necessary to the professional teacher. During this experience the prospective teachers encounter many people, conditions and situations within the school that influence the attitudes they hold toward teaching.

A wide variation exists in the activities and responsibilities given student teachers. No uniform set of experiences or standards await the student teacher. While the basic requirements of student teaching are demanded, there are differences in the specific requirements of each cooperating school and of each cooperating teacher. The philosophy, objectives, curricula, methods of instruction, course content, and materials vary from school to school. Student teachers themselves differ in ability, background,
and preparation for teaching; therefore the problems encountered by student teachers in performing the daily tasks and in adjusting to teaching are spread over a wide range. These many variations in experience effect changes in attitudes or interest on the part of the student teacher. It is not only desirable but necessary that those responsible for the student teaching program know what these experiences are that bring about such changes in attitudes.

A number of factors contribute to the teacher's attitude toward teaching, and the teacher's attitude may effect his progress in learning to teach. His attitudes may determine the modifications that he tries to make in his teaching, the energy expended in pursuing changes, and the learning that occurs (Seeger, 1955). Therefore, one of the important objectives of the teacher education program is to help prospective teachers develop desirable attitudes toward the teaching profession and those it serves. To evaluate the extent this objective is being accomplished, teacher education institutions must know something about the attitudes and preferences that students hold before and after their professional educational sequence (Slabetz, 1956). It is not enough to know that attitudes toward teaching and preferences for types of instruction change, an attempt must be made to determine the factors which cause the change.

Statement of Problem
The purpose of the study was to investigate changes in student teachers' attitudes occurring during student teaching. Specifically, the concern was to determine the relationship of these changes to the influence of the cooperating teachers' attitudes. In addition the study was designed to determine what, if any, relationship exists between a change in student teachers' attitudes and ratings of practice teaching performance given the student by the cooperating teacher.

A secondary purpose was to study changes in student teachers' preferences towards instructor characteristics occurring during student teaching and the relationship of these changes to the preferred instructor characteristics possessed by the cooperating teacher. Again, a concern was to determine what, if any, relationship exists between a change in student teachers' preferred instructor characteristics and ratings of practice teaching performance by the cooperating teachers.

The third purpose of the study was to investigate the attitudes and preferences of students beginning the teacher training program as compared to the attitudes and preferences of students who have completed their teacher training at Central Washington State College (CWSC).

More specifically, the study was developed to consider the following questions:

1. To what extent do attitudes stated by student teachers prior to teaching experience (measured by the Minnesota Teacher Attitude Inventory-MIAI) change after the eleven week period of student teaching?
2. To what extent do preferences of student teachers to kind of instructor characteristics (measured by the Preferred Instructor Characteristics Scale--PICS) change after the eleven week period of student teaching?
3. Does the difference between the classroom teachers' scores and the student teachers' scores on the MTAI change significantly subsequent to the period of student teaching?
4. Does the student teachers' preferences for instructor characteristics (measured by the PICS) become significantly closer to the classroom teachers' preferences subsequent to the period of student teaching?
5. To what extent do prospective teachers of elementary, junior high, and high school levels differ in their attitudes (measured by the MTAI)?
6. To what extent do prospective teachers of elementary, junior high, and high school levels differ in their preference for affective or cognitive type instruction (measured by the PICS)?
7. Are ratings of practice teaching performance significantly related to similarity of attitudes held by cooperating teachers and student teachers? (Attitudes determined by "difference scores" on the MTAI; difference determined by the student teacher's MTAI scores minus the cooperating teacher's MTAI score).
8. Are ratings of practice teaching performance related to similar preferences held by cooperating teachers and the student teachers as reflected by "difference scores" on the PICS? (Difference score is the student teacher's PICS score minus the cooperating teacher's PICS score).
9. To what extent do attitudes of college students (measured by MTAI) prior to beginning the teacher training program differ from those of students upon completing the teacher training program?
10. To what extent do preferences for teacher characteristics held by college students prior to beginning the teacher training program differ from students upon completing the teacher training program?

Since the relationship of the MTAI to the PICS could have a bearing on the interpretation of the results to questions 1-10:
ll. What is the relationship between PICS and the MTAI for student teachers?
12. What is the relationship between PICS and the MTAI for cooperating teachers?

## Definition of Terms

Several terms need to be defined as they relate to specific use in this problem. An "attitude" refers to the "meanings that one associates with a certain object (or abstraction) and that influence his acceptance of it" (Cronbach, 1963, p. 435). In this study, attitudes concern the opinions and ideas held by students about various aspects of education and teaching expressed by scores on the MPAI.

> 'Student teaching experience' is defined as 'those experiences of the program of preservice education teachers which provide, usually at the undergraduate level, for the participation (observing, assisting, teaching, etc.) of the prospective teacher, under the continuous guidance and supervision of the teacher education institution in the educational programs of schools' (Monroe, 1960, p. 1362).

For the purpose of this study, student teaching experience or practice teaching experience refers to the experiences of student teachers in observing, assisting, and teaching in various schools in Washington State for an eleven week period. During this time, they are guided by cooperating teachers within the schools and supervised by college supervisors under the auspices of the Department
of Student Teaching, CWSC. Supervisors from the college are charged with observation, feed back, seminars, etc. to assist the student teacher during his eleven week experience.

The terms "student teacher" or "prospective teacher" are used to designate college students who were enrolled in student teaching at CWSC during the eleven weeks of Spring Quarter, 1967.
"Cooperating teachers" and/or "supervising teachers", used interchangeably, are those teachers who are directly responsible for guiding and directing the activities of the student teachers assigned them for student teaching experience.

## CHAPTER II

## REVIEW OF LITERATURE

One of the important objectives of the teacher education programs is the developing of desirable attitudes of prospective teachers toward the teaching profession. Review of research suggests that the teacher's attitudes toward teaching form, in part, from social relationships encountered in training institutions and programs. Charters (1963, p. 749) states that social relationships "shape the teacher's role conceptions and his attitudes and values concerning himself, his colleagues, his clients, and the teacher learning process."

The evidence, though somewhat contradictory, suggests that a person's attitude has some bearing upon his style of teaching. Oliver (1953) found no relationship between elementary school teachers' professed acceptance of certain "principles" of teaching and the practices they were observed to use in the classroom. On the other hand, McGee (1955) employed the F-scale developed by Adorno, Frenkel-Brunswik, Levinson, \& Sanford (1950). He noted a correlation of .58 between authoritarian trends in teachers' personalities, as assessed by the F-scale, and observations of authoritarianism in their classroom teaching. Ryans (1960) reported a number of slight relationships between teachers' attitudes toward pupils and administrators, as
well as their educational viewpoints, and observations of their style of classroom behavior. Willard (1955) found several relationships between teachers' values and the absence or presence of 20 learning experiences they provided in their elementary classrooms. Those teachers who "positively" valued new experiences, security, workmanship, personal freedom, and helpfulness (measured by their choices among alternative courses of action in writing and photographs of classroom episodes), provided more of the 20 learning experiences than teachers who "negatively" valued one or more of the behaviors in children. None of the teachers who "negatively" valued new experiences offered pupils first hand learning experience or used community resources as a standard part of their classroom instruction.

Studies have been made of the attitudes of prospective teachers toward various phases of education and teaching. The instruments used to measure the attitudes and the procedure for collecting data were diversified. The MTAI was used more widely than other data collection instruments. The Minnesota Teacher Attitude Inventory
ittempted measurement of the effects of teacher training programs through student attitudes brought the MTAI into use. The respondent is asked to indicate the extent of his agreement or disagreement along a five point scale with each of 150 statements. These 150 items were
selected "on empirical evidence of their power to differentiate between criterion groups of good and poor teachers (Cook, Leed, \& Callis, 1951)." (A "good" or "poor" teacher was empirically defined by pupil ratings, principal ratings and ratings of specialists in teaching effectiveness). The statements were constructed around five different themes: (a) moral status of children, (b) discipline problems, (c) child development principles, (d) principles of educational administration, and (e) personal reactions of teachers to children. A high score on the MTAI is interpreted as indicating desirable teacher-pupil attitudes. This kind of teacher is characterized as able to maintain a state of harmonious relations with pupils having common goals, common understandings, a sense of humor, and fairness. In reverse, a low score on the MTAI is interpreted as indicating undesirable teacher-pupil attitudes. This is characterized by a teacher who is assumed to attempt to dominate the classroom possibly creating tension and fear. He is asserted to think in terms of status and subject matter covered instead of pupil needs.

Since the MTAI has been so widely used for the study of teacher attitudes, a number of investigations have examined how liable the inventory is to faking, and to what extent the results are due to response sets. For a review of studies on the MTAI itself see Appendix A.

The MTAI and other measures of personality. Attempts have been made to relate the attitudes measured by MTAI to other personality variables, notably those measured by the Minnesota Multiphasic Personality Inventory (MMFI) and the California F-scale.

Cook \& Medley (1954) used the standardization data of the MTAI to identify two groups of teachers differing sharply in their attitude scores. The MIMPI was administered to these two groups, and 212 completed inventories were obtained, 112 representing approximately the 8 per cent scoring highest and 100 representing the 8 per cent scoring lowest on the MTAI. From these returns, the investigator developed two new keys for the MMPI using items that discriminated significantly between teachers scoring high and teachers scoring low on the MTAI. When administered to a group of graduate education students, all experienced teachers, the Hostility (Ho) Scale, the Pharisaic Virtue ( Pv ) Scale, and the Teacher Attitude (Ta) Scale, a combination of Ho and Pv scales, correlated -.44, -.46, -. 50, respectively, with the MTAI. A second study done elsewhere (Stein \& Hardy, 1957) using 89 prospective teachers in the faculty of education at the University of Manitoba, showed the following correlations for the same variables: -. 297, -. 257, and -. 315 .

More recently Ofchus \& Gnagy (1963) using the MTAI
and the California F-scale explored the relationships between the student-class-course-instructor complex and changes in student attitudes toward teaching children as measured by the MTAI. A major finding of this study was the tendency for students to transfer on to the instructor their feelings about a mother-father authority figure. It appeared that students with high authoritarian tendencies seem to have very few warm, accepting attitudes toward children.

## MTAI scores with teaching experience. Callis (1950)

used the MTAI to demonstrate a significant increase in "favorable-toward children, permissive and supportive" attitudes among University of Minnesota students during their junior year in the College of Education, but he found "no change" over a six month period among seniors exposed, in the interim, to the student teaching experience. He also noted a significant downward trend in attitude scores among graduates after six months of teaching.

Subsequently, Day (1950) demonstrated that MTAI scores of Florida State University seniors were lower immediately after the student teaching experience. Also there was a drop among graduates after one year of teaching experience. The scores of graduates who did not enter teaching showed no significant change. The decline in attitude scores was confirmed, in this case after three years of
teaching experience, by another pair of investigators (Rabinowitz \& Rosenbaum, 1960) among graduates of the four New York City municipal colleges. Exploring their data, they discovered that the most severe decline in NTAI scores occurred among graduates whose teaching experience was in the schools of New Yorl City as opposed to those who took jobs outside the city. But, at least for those within New York City, the decline was not related to the "difficulty" of the teacher's assignment as measured by three indicators of the quality of students in the schools. Item inspection suggested decrease was related to classroom discipline and academic standards. Their interpretation of this change gave the indication that experienced teachers become more mature and tempered in judgement placing increased emphasis on limits and standards of pupils.

In the study of the relationship of student teachers' objectives for student teaching to the achievement of these objectives and to attitudes toward children's behavior, Troisi (1959) asked student teachers to list what they hoped to gain from student teaching. The objectives were classified into five categories pertaining to understanding children, teaching activities, personal guidance, classroom management and curriculum. The MTAI was administered to student teachers and cooperating teachers before and after student teaching experience. Notedly, the student teachers'
scores on the MTAI "increased"; therefore, the examiner concluded that since the preservice experience does influence the student teacher's attitudes, educational institutions must emphasize the importance of maintaining a classroom atmosphere characterized by understanding, security, and mutual respect.

Other reports of "improvement" in MTAI scores were given by Eson (1956) as well as Sandgren \& Schmidt (1956). Improvement was associated in the first case with an educational psychology course and in the second case with student teaching. Eson, however, was skeptical of the changes in MTAI scores he found, noting that they were of the same magnitude the test authors had found for subjects instructed to "fake good." He believed his subjects learned to recognize the "right" responses during the educational psychology courses.

From the preceding studies a contradiction as to whether MPAI scores increase or decrease after a teacher preparation experience is evident. Further contradictory evidence was reviewed concerning ratings of student teachers and scores on the MTAI.

MTAI scores and ratings of student teachers. In the previously cited study by Stein \& Hardy (1957) three samples of student teachers from the University and Normal School in Manitoba were utilized. Two samples of 50 subjects each were in the elementary schools. MTAI scores
were correlated with four types of classroom measures: (a) ratings by pupils on an adaptation of the Leeds scale called "Our Student-teacher," (b) ratings by pupils of the student teacher's lessons apart from his personality, (c) advisor ratings, (d) a combination of the three ratings. Of eight correlations reported, six were significant at or beyond the . 05 level. One finding is the difference in the relationship between MTAI and pupil ratings of the student teacher's personality on the "Our Student-teacher" scale and the pupil ratings of the student teacher's lessons themselves. The former gave a significant correlation of .507 , the latter a nonsignificant correlation of .282. The combined ratings gave a correlation of .39 for the elementary student teachers and . 56 for the secondary student teachers. The investigators concluded from these findings that student teacher attitudes are measured by the MTAI with a "fair degree of both validity and reliability (p. 326)."

But other investigations adduce quite different results. The previously cited study by Sandgren \& Schmidt divided a sample of 393 student teachers into an upper, middle, and lower group on the basis of MTAI scores. No significant relationship between the MTAI score and the cooperating teacher's rating of teaching effectiveness was obtained. The investigators concluded:

- . because there was no apparent relation between MTAI scores and critic teacher's ratings the MTAI cannot be used to predict probable success in teaching if the ratings made by public school critic teachers on the student teaching reports are used as a criterion of success (Sandgren \& Schmidt, 1956, p. 679).

Oelke (1956) examined the relationship between the MTPAI scores of 44 senior student teachers and the ratings given them by their supervisors, and similarly found no significant relationship. Fuller (1951), in an earlier study of 74 senior student teachers in a nursery-kinder-garten-primary teacher training curriculum, also found no systematic relationship between IMTAI scores and supervisors' ratings and concluded:

Therefore, while the MTAI may serve a highly useful purpose in selecting students from the general population for training in early childhood education, or even for refinement of selection policies within subdivisions of the College of Education, it does not identify the ablest or weakest student teachers within the experimental group (Fuller, 1957, p. 682).

Further investigation of attitude changes determined by the MiTAI includes the recent study by Butcher (1965) who suggested that changes in attitudes toward pupils resulting from training courses are reversed after an experience of full time teaching. This is confirmed by McCullough (1961) who compared the change in attitudes toward youth of two selected groups of student teachers by using the MTAI as a basis for determining the attitudes of student teachers.

The two groups were divided by the order in which they completed a professional semester. Those that completed student teaching during the first 9 -week period and professional education courses during the last 9 weeks had a significantly higher mean attitudinal score than those who took the professional courses during the first 9 weeks and completed student teaching during the last 9-week period. The mean MTAI score of both groups of prospective teachers changed in a positive direction durinf the period of professional education courses and in a negative direction during the period of student teaching.

In studying the changes of attitudes of prospective teachers, it was found that attitudes do change during the period of student teaching; however, it was not concluded that student teaching alone was responsible nor are the studies in agreement as to the direction these attitudes change.

Of the many factors associated with observed changes in attitudes of student teachers, Scott \& Brinkley (1960) concerned themselves with only one factor, the attitude of the cooperating teachers. In their study of 77 voluntary student teachers, the MTAI was administered to the cooperating teacher and the student teacher. From a statistical analysis the investigators concluded some slight degree of association between attitude changes of student teachers and
the attitudes of their supervising teachers, with the association limited to instances in which the student teachers made lower initial scores than did their cooperating teachers.

Dutton (1962) referred to the above study and considered the lack of exploration of teachers' attitudes and anxiety levels of teachers. He hypothesized that student teachers possessing strong anxieties may be expected to change their attitudes in the direction of their cooperating teacher's attitudes. The MTAI was given to 91 elementary school student teachers. The Taylor Manifest Anxiety Scale and the Anxiety Differential were used to secure anxiety scores. In this study significant changes occurred in a negative direction toward children on the MTAI during student teaching. Twenty-two per cent of the cases showed a positive gain, but seventy-eight per cent of the sampling changes were in a negative direction. Noteworthy was the finding that this change was in the direction of the attitudes held by the cooperating teachers. Both highly anxious and nonanxious student teachers had negative changes in attitudes in the direction of the cooperating teachers.

The investigators referred to Scott \& Brinkley reporting only a slight degree of association between attitudes of their cooperating teachers and the attitudes of student teachers. In this study, 52 of the 91 student
teachers had higher scores on the MTAI than their cooperating teachers, 4 had the same scores, and 35 had lower scores than their cooperating teachers. Of the 35 student teachers with initial scores on the MTAI lower than their cooperating teacher, there were 21 who changed in a negative direction rather than a positive direction. But, the investigators reportedly showed that attitudes of student teachers change in the direction of cooperating teachers regardless of initial scores.

In summary Troisi (1959), Sandgren \& Schmidt (1956) reported finding improvement in MTAI scores after student teaching; yet Callis (1950), Day (1959), Rabinowitz \& Rosenbaum (1960) found a decrease after student teaching. Other evidence found MTAI scores to be related to ratings of student teachers; yet Sandgren \& Schmidt (1956), Oelke (1956), and Fuller (1951) state that there is little relationship. The need for further research is apparent to clarify some of the questions created by the previously cited investigators. The findings of scott \& Brinkley (1960) suggested some association between attitude change of student teachers and the attitudes of their cooperating teachers. This was more than confirmed by Dutton (1962). A question of this researcher is, does the attitude change of the student teachers in the direction of the cooperating teachers' attitudes have any bearing upon the final rating
given the student teacher by the cooperating teacher? In attempting to answer this question the researcher also tried to answer questions created by the previously cited research. The Preferred Instructor Characteristics Scale

In an investigation to discover any achievement or motivational differences that may result from three different methods of teaching in a how-to-study course, Krumbolt \& Farquhar (1957) randomly assigned 120 students to three groups. The three teaching methods were termed instructorcentered method, student-centered, and eclectic. The in-structor-centered method emphasized the intellectual content of the course and consisted primarily of lectures and in-structor-directed activity. The student-centered approach emphasized the more affective aspects of the classroom and dealt with student problems by committee work and student led discussion. The eclectic method consisted of a combination of the previously emphasized.

For their study the investigators developed the, as yet, unpublished Preferred Instructor Characteristics Scale (PICS). It was used to measure a student's prejudice for or against a certain kind of teaching method. It is a 36 forced-choice item scale requiring approximately 10 minutes to administer. A "Cognitive-affective" contiuum of instructor characteristics was proposed by the investigators. A high numerical score on the PICS indicates the respondent's
preference for a cognitive type of teacher approach while a low score indicates preference for an affective teacher approach. The cognitive instructor was defined as concerned with intellectual, abstract, subject matter goals of teaching. The affective instructor was defined as being more concerned with emotional adjustments and student interactions in the classroom. The investigators showed the PICS to contain high reliability (test-retest .88).

After reviewing those characteristics measured by the PICS this investigator noted the similarity between the description of the cognitive instructor and that of the MTAI authors' (Cook, Leeds, \& Callis, 195l) description of an inferior teacher discriminated by the MTAI.

According to these authors the inferior teacher has failed to gain security in social relations before entering teaching. This consequently militates against the gaining of security through social responses of pupils during teaching. The needs for social acceptance are not met through social relations with pupils. Security is therefore sought through position, authority, degrees, diplomas, and certificates.

> The socially insecure teacher frequently seeks security through knowledge of subject matter. He is likely to assert that if one knows his subject little else matters in teaching (Cook, et al., l95l, p. 4).

## CHAPTER III

METHOD

## Subjects

The following subjects used for this study consisted of three groups varying in degrees of experience with teaching: (a) 143 college students enrolled in student teaching at Central Washington State College during the eleven weeks of Spring Quarter, 1967, (b) 98 cooperating teachers who were directly responsible for the activities of each student teacher during the eleven weeks, (c) 66 students just beginning the teacher education sequence of courses during the same eleven weeks. These students were from two separate classes of the introductory course, Education 207 --Introduction to Education.

Only the results of those student teachers who took both the pre- and posttests were used. This represented 81 per cent of those completing the pre-professional program. The cooperating teachers' returns represented 69 per cent of student teachers who completed the pre- and posttests.

## Measuring Devices

The scale used to measure attitudes toward teaching in each group was the MTAI. The PICS was used to measure the subjects' choices between cognitive or affective types of instructor characteristics. A slight alteration was made
in the PICS' instructions to cooperating teachers considering they do not have instructors (Appendix B).

Each student teacher was rated by the cooperating teacher and by the college student teaching supervisor. These ratings were summarized on a Student Teaching Final Examination Sheet (Appendix C) showing the student teacher's rating on a continuum of five points. These ratings were obtained through the cooperation of the Office of student Teaching, CWSC.

## Procedures

The test-retest method was employed before and after the eleven weeks of Spring Quarter, 1967, for both groups of students enrolled in student teaching and Education 207 at CWSC. The pretest for the student teachers was given approximately two weeks before most students began their teaching assignments. The pretest for the Education 207 students was given for both classes within the first week of the spring quarter. The MTAI and the FICS were administered at the same time. The same testing instructions were used for each group on the pre- and posttests. There was a brief explanation of what the two scales were attempting to measure followed by a request that each subject read the directions on the scales and begin answering. An information card was attached to the student teachers' pretest scales for purposes of follow-up (Appendix D).

The pretest for the group of student teachers required two meetings occurring within six days of each other. The number of student teachers that responded to the pretest from these two meetings was 127 out of the 198 total enrollment. After completing the pretest, each student teacher was given a stamped, self-addressed packet containing a letter of explanation to the cooperating teacher (Appendix E), the MTAI, the PICS, and a pencil. Each student teacher was requested to give the packet, unopened, to the cooperating teacher upon arrival at his assigned position. In order to obtain as close to a complete sampling as possible, packets containing the above mentioned materials for the classroom teacher plus duplicate test packets for the student teacher were mailed to the remaining 72 students not participating at the pretest meetings. An additional letter of explanation (Appendix $H$ ) accompanied by a request that both the student teacher packet and tne cooperating teacher packet be returned by mail when completed. At the midquarter an additional follow-up letter (Appendix G) was sent to college supervisors in each district having student teachers from CWSC. The pretest returns for student teachers totaled 169 out of 175. Although the original enrollment was 198 , six students withdrew and seven were placed in half-time special education practice teaching.

The follow-up posttest for student teachers was completed during the first week of first session and first week of second session of Summer Quarter, 1967. The students were tested in 13 Education 490 Seminar in Educational Problems classes. Education 490 is a seminar class required of all students after completing student teaching. The information card filled out on the pretest showed that only twelve student teachers were not returning for the summer session to take Education 490. These students were contacted through the mail. There were returns from seven student teachers. The posttest for the Education 207 students was administered in the final two days of Spring Quarter.

## RESULIS

The results reported here are for student teachers who took both pre- and posttests to describe their attitudes and possible changes in attitudes. Analysis of the results are presented in the same order as the questions considered in Chapter I.

Change in Student Teacher Attitude and Freference Scores The first interest of this study was to determine to what extent attitudes reflected by scores on the MTAI change as a function of student teaching. A measure of the amount of change was based on the student teacher's initial MTAI score before student teaching against the post-student teaching score. As in Table l, analysis of data by means of t-tests showed a significant mean decrease from pre- to posttest at the .05 level of confidence. This shows that MTAI attitudes change in a negative direction over the eleven week student teaching experience. The first question posed in this study can thus be answered by saying that the attitudes of student teachers do change, and this change is in a negative direction as defined by the MTAI.

The next consideration was to see what extent preferences of student teachers for types of instructor characteristics change following student teaching. The measure

## Table 1

t-Test Results for Changes During Student Teaching in Mean MTAI and PICS Scores of 143 Student Teachers

| Comparison | Mean | s.d. | t | Sign <br> Level |
| :---: | :---: | :---: | :---: | :---: |
| Initial MTAI of Student Teachers | 40.92 | 25.693 | 2.097 | $<.05$ |
| Post Student Teaching MTAI Scores | 33.75 | 31.368 | 2.09 |  |
| Initial PICS of Student Teachers | 8.90 | 9.727 | 1.128 | $>.05$ |
| Post Student Teaching PICS Scores | 7.67 | 8.686 |  |  |
| MTAI Scores of Cooperating |  |  |  |  |
| Teachers | 40.93 | 3.46 |  |  |
| PICS Scores of Cooperating |  |  |  |  |
| Teachers | 10.13 | .94 |  |  |

of amount of change on the PICS was treated the same as the MTAI scores. Analysis of data by means of the t-test showed no significant mean change from pre- to posttest.

The correlation on Table 2 between pre- and post-MTAI is significant at the . 05 level (.399), but not at the higher level claimed by the test authors (.66) under similar conditions. A correlation between pre- and post-PICS scores was significantly high (.757) between the first and second testing over the period of eleven weeks of student teaching. Relative stability of the FICS is thus shown. Relationship of Cooperating Teachers' ittitudes and Preferences to Student Teachers' Attitudes and Preferences

Of the many factors possibly associated with assessed changes in student teachers' attitudes, only one factor, the influence of attitudes of the cooperating teachers, was considered in this study. It was assumed that if the difference in scores is less from pre- to posttest between the student teacher and cooperating teacher, the student has changed his attitudes or preferences to be more like those of his cooperating teacher. Analysis of this change was based on the hypothesized direction of change, i.e. the post-MTAI of the student teacher's score would be nearer that of the cooperating teacher than the pre-MTAI score. Comparing the two difference scores, the t-test showed no significant difference ( $t=1.34, \mathrm{df}=176,>.05$ ). There

## Table 2

Correlations Concerning MTAI and PICS for Student Teachers and Cooperating Teachers

|  |  |  |
| :--- | :---: | :---: |
| Student Teachers pre-test with posttest (MTAI) | 143 | $.399^{* *}$ |
| Student Teachers pre-test with posttest (PICS) | 143 | $.757^{* *}$ |
| Difference Scores with Teacher Rating | 89 | .039 |
| (Pre-Test MTAI) |  |  |

* $P<.05$
** $\mathrm{P}<.01$
seems to be no attitude change occurring in student teachers in the direction of attitudes of their cooperating teachers in this population. The third hypothesis was rejected, for the difference in scores did not become significantly closer during the student teaching period.

The results for the PICS difference scores were analyzed by means of the t-test. Comparison of these difference scores showed no significant difference ( $t=.817$, $d f=176,>.05)$. The fourth hypothesis was rejected. There was no significant variation in the change in difference scores of student teachers' preferences toward their cooperating teachers' preferences for certain types of teacher characteristics.

Student Teachers in Junior High vs. Senior High
A measure of the extent attitude scores differ between student teachers selecting and practice teaching in elementary, junior high, and high school levels was analyzed by means of t-tests. This is shown in Table 3. The first comparison between student teachers placed in senior high school and those placed in junior high school showed no significant difference on either the pre- or post-MTAI scores. In partial answer to question five, there is no difference in attitude scores between student teachers in junior high or high school in this sample.

Comparison between the same two groups on the PICS,

Table 3<br>t-Test Comparisons Between Junior High School (JHS) and Senior High School (SHS) Student Teachers Before and After Student Teaching

| Comparison | N | Mean | s.d. | t | Sign <br> Level |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Pre MTAI (SHS) | 40 | 35.250 | 21.85 | 1.307 | $>$ | .05 |
| Pre MTAI (JHS) | 30 | 28.100 | 23.20 |  |  |  |
| Post MTAI (SHS) | 40 | 26.250 | 31.57 | .435 | $>$ | .05 |
| Post MTAI (JHS) | 30 | 23.033 | 29.81 |  |  |  |
| Pre PICS (SHS) | 40 | 12.325 | 14.24 | 1.024 | $>$ | .05 |
| Pre PICS (JHS) | 30 | 9.500 | 8.72 |  |  |  |
| Post PICS (SHS) | 40 | 11.275 | 11.82 | 2.18 | $<$ | .05 |
| Post PICS (JHS) | 30 | 6.300 | 7.09 |  |  |  |

however, showed significance at the . 05 level of confidence on the posttests. A partial answer is proposed for question six. Although no difference in attitudes was shown, the PICS posttest for junior high student teachers showed a significantly greater preference for affective teacher characteristics.

Student Teachers in Senior High vs. Elementary
Analysis of the data, between student teachers placed in elementary and senior high, by means of the t-tests showed mean MTAI scores, pre- and posttests, to be significantly different at the .05 level of confidence (see Table 4). The results provide the next portion of the answer to question five, for the mean attitude scores of both groups after student teaching remained significantly different from each other.

The results of the PICS scores were analyzed in the same manner. The t-tests also showed the pre- and posttests to remain significantly different from each other. This provides additional information for answering question six. The student teachers placed in elementary school had a significantly greater preference for affective (over cognitive) instructor characteristics.

Student Teachers in Junior High vs. Elementary
Table 5 summarized the comparisons of MTAI scores for junior high and elementary student teachers. The results

Table 4
t-Test Comparisons Between Senior High School (SHS) and Elementary school (ES) Student Teachers on MTAI and PICS Before and After Student Teaching

| Comparison | N | Mean | s.d. | $t$ | Sign <br> Level |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Pre MTAI (SHS) | 30 | 35.250 | 21.85 | 3.058 | $<$ |
| Pre MTAI (ES) | 73 | 49.301 | 25.85 |  |  |
| Post MTAI (SHS) | 30 | 26.250 | 31.57 | 2.606 | $<.05$ |
| Post MTAI (ES) | 73 | 42.273 | 30.65 |  |  |
| Pre PICS (SHS) | 30 | 12.325 | 14.24 | 2.347 | $<.05$ |
| Pre PICS (ES) | 73 | 6.794 | 5.91 |  |  |
| Post PICS (SHS) | 30 | 11.275 | 11.82 | 2.474 | $<.05$ |
| Post PICS (ES) | 73 | 6.273 | 6.54 |  |  |

## Table 5

t-Test Comparisons Between Junior High school (JHis) and Elementary school (Es) Student 'Yeachers Betore and After Student Ieaching

| Comparison | N | Mean | s.d. | t | Sign <br> Level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pre MTAI (JHS) | 30 | 28.100 | 23.20 | 4.071 | $<.01$ |
| Pre MTAI (ES) | 73 | 49.301 | 25.85 | 4.071 | $<.01$ |
| Post MTAI (JHS) | 30 | 23.033 | 29.81 | 2.950 |  |
| Post MTAI (ES) | 73 | 42.273 | 30.65 | 2.950 | $<.01$ |
| Pre PICS (JHS) | 30 | 9.500 | 8.72 | 1.55 |  |
| Pre PICS (ES) | 73 | 6.794 | 5.91 | 1.55 | . 05 |
| Post PICS (JHS) | 30 | 6.300 | 7.09 | . 017 | $>.05$ |
| Post PICS (ES) | 73 | 6.293 | 6.54 |  |  |

from t-tests showed the mean of the elementary student teachers to be significantly higher on both the pre- and posttests at the . Ol level of confidence. The results in the posttests showed even greater difference between the group of junior high student teachers and those in elementary, than the comparison with senior high and elementary. The last component to the answer of question five is that junior high student teachers have the lowest MTAI scores while those in elementary carry the highest mean attitude scores for this study.

The PICS scores, however, when compared in the same manner showed no significant difference between these two groups on either pre- or posttests. This provides the last information necessary to answer question six. The student teachers in junior high and elementary levels prefer more affective teacher characteristics than those in high school.

## Teacher Ratings and Difference Scores

One of the important concerns of this study was to measure the relationship between ratings of practice teaching performance and the similarity or difference in attitudes of the student teacher and cooperating teacher. Analysis of data involved linear and curvilinear relationships (refer back to Table 2). Determination of linear relationships involved two correlations. The first was
between MTAI difference scores on the pretest and cooperating teachers' ratings. The second was between the difference scores on the posttest and cooperating teachers' ratings. Analysis of the results showed no significant relationship on either the pre- (.039) or posttest (-.127). Hypothesis seven is rejected on the basis of no linear relationship.

The determination of possible curvilinear relationship required the construction of a scattergram representing teacher ratings and the resulting difference scores (the difference between student teacher pre-MTPAI and cooperating teacher MTAI minus the difference between student teacher post-MTAI and cooperating teacher MTAI). These new difference scores represented the change of similarity in attitudes between student teacher and cooperating teacher. The Eta correlation coefficient showed no significant departure from a linear relationship between the similarity or difference in attitudes and student teacher ratings. The results require rejection of the seventh hypothesis because no linear or curvilinear relationship was found.

An equal concern was measurement of the relationship of PICS score differences between cooperating teacher and student teacher with respect to ratings of student teaching performance. The linear correlations showed both the pretest difference scores with ratings ( $\mathrm{r}=.33$ ) and posttest
difference scores with ratings ( $r=.32$ ) significant. However, since both have almost equal correlations there was no change in similarity (or difference) in teacher characteristics preferences.

Curvilinear relationship between student teacher ratings and differences in PICS scores of the cooperating teacher and student teacher was completed by scattergram inspection. This suggested no significant non-linear relationship. Hypothesis eight was rejected on the basis of the above results.

Attitudes and Preferences of Introduction to Education Students vs. Student Teachers

Table 6 summarizes the analysis of the amount of change that occurred between the students beginning the pre-professional program and those finishing the program. Data was based on the difference scores from the pretest to the posttest (pretest MTAI score minus the posttest MPAI score). These difference scores indicated the amount of change that occurred between the two testing sessions. A comparison of change between the two groups was analyzed by means of t-tests. The results showed the Education 207 group to have a significantly higher mean difference score than that of the student teachers ( $t=4.516, \mathrm{df}=207,<.01$ ). Thus, in this study the Education 207 group had a significantly higher attitude change than did the student teachers.

Table 6
t-Test Results Between Introduction to Education Students and Student Teachers Based on Difference Scores from Pre-Test Minus Posttest

| Comparison (Student 'Peachers 145) <br> (Education 207 66 ) | t | SignLevel |  |
| :---: | :---: | :---: | :---: |
| Pre MHAL of student 'leachers $2.338<$ |  |  |  |
| Pre MIAI of Education 207 2.338 < . 05 |  |  |  |
| Post IIPAI of Student Teachers <br> Post viTAI of Education 207 $1.528>.0$ |  |  |  |
|  |  |  |  |
| Pre PICS of Student Teachers <br> Pre PICS of Education 207 $1.76>.0$ |  |  |  |
|  |  |  |  |
| Post PICS of student Teachers 902 |  |  |  |
| Post PICS of Euucation 207 -902 |  |  |  |
| Post MTAI minus Pre MTAI Student Teachers $\quad 4.516<.001$Post MTAI minus Pre MTAI Education 207 |  |  |  |
|  |  |  |  |
| Post PICS minus Pre PICS Student Teachers | 5 |  |  |
| Post PICS minus Pre PICS Education 207 | 㖪 |  |  |

Analysis of the data for the PICS difference scores between the Education 207 students and student teachers was also by means of t-tests. The results showed no significance between the difference scores ( $t=1.055$, $\mathrm{df}=207,>.05$ ). There was no significant change in preferred teacher characteristics for beginning Education 207 students or student teachers.

Table 7 summarizes a comparison of MTAI pre- and posttests between Education 207 students and student teachers. Analysis by t-tests for Education 207 students showed the mean to be significantly greater on the posttest at the .05 level of confidence. The indication was that beginning students in teacher education improved their attitude scores significantly after the eleven weeks of Spring Quarter. On the other hand, when comparing the MTAI pretest with posttests of student teachers, the t-tests showed the means to be significantly less on the posttest at the .05 level of confidence. The student teachers, after the experience of student teaching, had significantly less favorable attitude scores on MTAI.

The above findings answer question nine, for it appears that over approximately the same period of time the attitudes of students beginning the teacher education program favorably increase while those of the student teachers decrease.

## Table 7

t-Test Comparison Between Introduction to Education Students and Student Teachers Before and After
an Eleven Week Quarter

| Comparison | N | Mean | s.d. | t | Sign Level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pre Student Teaching MTAI | 143 | 40.923 | 25.69 |  |  |
| Post Student Teaching MTAI | 143 | 33.755 | 31.76 | 2.097 | $<.05$ |
| Pre Education 207 <br> Post Education 207 | $\begin{aligned} & 66 \\ & 66 \end{aligned}$ | $\begin{aligned} & 30.590 \\ & 41.425 \end{aligned}$ | $\begin{aligned} & 31.368 \\ & 31.58 \end{aligned}$ | 1.977 | $<.05$ |
| Pre Student Teaching PICS | 143 | 8.909 | 9.727 |  |  |
| Post Student Teaching PICS | 143 | 7.678 | 8.686 | 1.128 | $>.05$ |
| Pre Education 207 PICS | 66 | 11.287 | 8.727 |  |  |
| Post Education 207 PICS | 66 | 8.803 | 8.231 | 1.682 | $>.05$ |

Analysis between pretest and posttest PICS scores for both groups by t-tests showed no significant mean difference. In answer to question ten, both Education 207 students and student teachers prefer similar types of teacher characteristics at the time of the pretest and this preference tends to remain constant over a period of eleven weeks.

Relationship Between the MTAI and PICS
Reference back to Table 2 also shows the determination of relationship between the MTAI and PICS. Student teachers showed a low but significant correlation on the pretest ( $r=-.175$ ). However, on the posttest there was no significant relationship between the two scales ( $r=-.079$ ). Whatever low relationship existed between the pretest scales did not continue on the posttest. From these results regarding question eleven, if there is any relationship between PICS and MTAI for students it is a low relationship.

The relationship between cooperating teachers' MTAI and PICS scores was also determined. The one sampling of the two scales appeared to show a low but significant correlation between the two ( $r=-.28,<.01$ ). The results concerning question two indicate to a small degree that those teachers who scored high on the MTAI tended to prefer the more affective type of teacher characteristics, or those
who score low on the IMTAI tended to prefer the more cognitive teacher characteristics.

## CHAPTER V

DISCUSSION
One of the principal concerns of this study was to determine if attitude changes occurring in student teachers have any relationship to the attitudes of the cooperating teachers. The results of this portion of the study provide contradictory evidence to the Iindings of Scott $\mathrm{B}_{\mathrm{c}}$ Brinkley (1960) and Dutton (1962). There was no evidence to suggest that the attitude changes occurring in student teachers was related to the attitudes of the cooperating teachers.

Since there was no significant change in preferences for certain teacher characteristics by student teachers, no inference concerning change in the direction of cooperating teachers' preferences can be drawn. It is evident from these results, however, that most students prefer the more affective teacher characteristics. The preferences for this type instructor appeared to be rather well formed by the time the student entered the pre-professional training since no significant change occurred in Introduction to Education students during the quarter. Also students were not influenced significantly by student teaching in regard to their preferred instructor characteristics.

Another concern of this study was to determine if a similarity or difference in attitudes and/or preferences between student teacher and cooperating teacher had any
relationship to the ratings of student teaching performance. The evidence from this investigation supports the findings of Sandgren \& Schmidt (1956), Oelke (1956), and Fuller (1951). There was no relationship between the congruence of student teacher and cooperating teacher attitudes or preferences (MTAI and PICS) and rated performance for this population.

Surprisingly, although changes in attitude scores had occurred for the student teachers, it was not related to the cooperating teachers' attitudes or to ratings of student teaching performance. However, the general approach of this study may have given the student teachers an influencial set at the initial pre-student teaching testing session. At least this seemed apparent from subjects' comments during and after the testing session. Subjects apparently expected a student teaching orientation meeting, valued at greater importance, only to find themselves involved in a research study. If this was actually the case, such a set on the part of the subjects may have interferred with accurate measurement of the attitudes and preferences.

A contributing factor to the lack of relationship between teachers' ratings and the student teachers' difference in attitudes and preferences was the rating scale itself. The Student Teaching Final Examination Sheet represented a combined summary agreed upon by the cooperating teacher and
college student teaching sunervisor. The influence of the college supervisor proved an undetermined variable to the rating of the student teachers. If the more refined cooperating teacher's rating were obtained and better control of the testing situations were maintained, different results might have occurred.

Comparison of student teachers placed at elementary, junior high, and high school levels showed similar results as those cited by MTAI authors; Cook, Leeds, \& Callis (1951). The elementary level student teachers had the highest attitude scores for pre- and post-student teaching. The junior high group had the lowest mean scores on both the pre- and posttest of the MTAI. Interestingly, they also had significantly greater preference for affective teacher characteristics than student teachers in senior high. Although some correlations between MTAI and PICS were significant, they were low and are measuring somewhat different factors. This is different from the speculation of the researcher at the beginning of the study. The shorter PICS is no substitute for the MTAI.

Some differences were shown between elementary, compared to junior high and senior high student teachers. The senior high student teachers showed a tendency to prefer an eclectic or middle preference between cognitive and affective teacher characteristics. Emphasis on specialization
in subject matter is one reason for this. The elementary group showed a much greater preference for affective characteristics suggesting more teacher-pupil concern.

One of the interesting findings of this study was the different direction attitude scores of students begining the pre-professional program took as compared with those of student teachers finishing the program. It appears that educational concepts received in college courses is associated with increased MTAI scores, however, the experience of student teaching results in a statistically significant decrease in scores. These changes are subject to several interpretations. First, if the MPAI is interpreted as the test manual suggests, the decline in scores is regarded as a "deterioration" in teacher attitudes associated with ability to establish rapport with pupils. However, this decline in scores seems less clearly a deterioration in attitudes as it does a change in response set. Because of their student teaching experience, the students are more aware that statements on the MTAI depend upon variables in the classroom. Hence, they may tend to take a more moderate response position. The findings of Budd \& Blakely (1958) show that this could lower MTAI responses (reviewed in Appendix A).

A reasonable alternative to the position in the above paragraph is favored by this investigator. There
have been many surveys devoted to the problems of the beginning teachers. This fact suggests that beginning teaching is a particularly critical time, and the decline in MTAI scores associated with early years of teaching such as were found by Day (1959), Rabinowitz \& Rosenbaum (1960), HicGuilough (1901), and now this investigator point in the same direction. It is possible that the transition from college student to teacher entails a role adjustment. The student transcends trom relatively free and easy surroundings to a more conservative environment, from requirements of limited responsibility to a highly responsible position as an adult. It is possible that many of the favorable attitudes emphasized in college represent theoretical principles that must later face concrete applications. For some, of course, this adjustment process began long before college. But others may have experienced a "reality shock" to the demands of actual teaching situations.

Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., \& Sanford, R. N. The authoritarian personality. New York: Harper, 1950.

Budd, W. C., \& Blakely, I. S. Response bias on the Minnesota Teacher Attitude Inventory. Journal of Educational Research, 1958, 51, 707-709.

Butcher, H. J. The attitudes of student teachers to education: A comparison with attitudes of experienced teachers and a study of changes during the training course. British Journal of Social and Clinical Psychology, 1965, 4 (1), 17-24.

Callis, R. Change in teacher-pupil attitudes related to training and experience. Educational and Psychological Measurement, 1950, 10, 718-727.

Charters, W. W., Jr. The social background of teaching. In N. I. Gage (Ed.), Handbook of research on teaching. Chicago: Rand McNally, 1963. Pp. 749-750.

Coleman, W. Susceptibility of the Minnesota Teacher Attitude Inventory to "faking" with experienced teachers. Educational Administration and Supervision. 1954, 40, 234-237.

Cook, W. W., Leeds, C. H., \& Callis, R. Minnesota Teacher Attitude Inventory. New York: Psychological Corporation, 1951.

Cook, W. W., \& Medley, D. M. Proposed hostility and pharisaic virtue scales for the MMPI. Journal of Applied Psychology, 1954, 38, 414-418.
Cronbach, I. J. Educational psychology. New York: Harcourt, Brace and World, 1963.

Day, H. P. Attitude change of beginning teachers after initial teaching experience. Journal of Teacher Education, 1959, 10, 326-328.

Dutton, W. H. Attitude change of elementary school student teachers and anxiety. Journal of Educational Research, 1962, 55, 380-382.

Eson, M. E. The Minnesota Teacher ittitude Inventory in evaluating the teaching of educational psychology. Journal of Educational Psychology, 1956, 47, 271-275. Fuller, E. M. The use of teacher-pupil attitudes, selfrating and measures of general ability in the pre-service selection of nursery school-kindergarten-primary teachers. Journal of Educational Research, 1951, 44, 675-686. Krumboltz, J. D., \& Farquhar, W. W. The effect of three teaching methods on achievement and motivational outcomes in a how-to-study course. Psychological Monographs, 1957, 71 (14, Whote No. 443).

McCullough, H. E., Jr. A comparison of the change in attitudes toward youth of two selected groups of student teachers. Unpublished doctoral dissertation, North Texas State College, 1961.

FicGee, H. M. Measurement of authoritarianism and its relation to teacher's classroom behavior. Genetic Psychology Monographs, 1955, 52, 89-146. Mitzel, H. E., Rabinowitz, W., \& Ostreicher, L. M. Effects of certain response sets on valid test variance. New York: City College's Division of Teacher Education, Office of Research and Evaluation, 1955 (Res. Series No. 26).

Monroe, W. B. (Ed.) Encyclopedia of educational research. (Rev. ed.) New York: MacMi」lan, 1952. Pp. 1362-1363. Oelke, ir. C. A study of student teachers' attitudes toward children. Journal of Educational Psychology, 1956, 47, 193-196.

Ofchus, L. T., \& Gnagey, W. J. Factors related to the shift of professional attitudes of students in teacher education. Journal of Educational Psychology, 1963, 54, 14.-153.

Oliver, W. A. Teachers' educational beliefs versus their classroom practices. Journal of Educational Research, 1953, 47, 47-55.

Rabinowitz, W., \& Rosenbaum, I. Teaching experience and teachers' attitudes. Elementary School Journal, 1900, 60,313-う17.

Ryans, D. G. uharacteristics of teachers. Washington, D.C.: american Council on Education, 1960.

Sandgren, D. L., \& Schmidt, L. G. Does practice teaching change attitudes toward teaching? Journal of Educational Research, 1956, 49, 673-680.

Scott, O., \& Brinkley, S. G. Attitude change of student teachers and the validity of the linnesota leacher Attitude Inventory. Journal of Educational Psychology, 1960, $21,76-81$.

Seeger, iv. L. Twenty-year sampling of teacher attitucis. School Executive, 1955, 75, 47.
Slabetz, F. A study of some attitudes of prospective teachers toward teaching. Teachers' College Journal, 27:93, May, 1956.

Stein, H. L., \& Hardy, J. A validation study of the MThI in Manitoba. Journal of Educational Research, 1957, 500, 321-338.

Troisi, N. F. The effect of student teaching upon student teachers' objectives and their relations to achievement and attitudes toward children. Unpublished doctoral dissertation, School of Education, Indiana University, 1959.

Willard, R. A. A study of the relationship between the valued-behaviors of selected teachers and the learning experiences provided in their classrooms. Journal of Educational Research, 1955, 49, 45-51.

Appendix A

## ALLIED STUDIEN ON MHE MTAI

Perhaps the earliest of these investigations on fakeability of the MTAI was by Callis (1950) in a study cited in the thesis body (p. 12). He administered the MTAI to several groups of juniors in the University of Minnesota College of Education, first with standard instructions, and after an interval of several weeks with instructions to "get as high a score as possible." Sequence of testing and test-retest gain or loss were used as types of controls. The investigator concluded that "the inventory was found to be only slightly susceptible to attempts to fake good (Callis, 1950, p. 725)."

Since the preceding findings may have been due to the "naiveté" of the students in training who were the subjects, Coleman (1954) used 76 experienced teachers in his experiment. The MTAI was administered twice, first with standard instructions, and five to seven 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 . . . (Coleman, 1956, p. 235)." A mean gain of 12.42 points, significant at the .Ol level, was obtained between the two scores. The investigator concluded:

Use of the MTAI as a major factor in hiring a teacher would not seem warranted in light of the instrument's susceptibility to faking (Coleman, 1956, p. 236).

In a study cited in the body of this thesis by Stein \& Hardy (1957) a referral was made to the above two studies and the conclusion drawn was that neither investigation established "categorically whether or not the inventory is significantly susceptible to faking (p. 326)." They investigated the problem with three random samples of 25 education students from the University of Manitoba. The MTAI was administered to these prospective teachers before and after the midyear recess. The first testing followed standard instructions for all three groups. In the second testing one control group was again given the Coleman instructions, to answer from a progressive point of view. The third group was given instructions based on the extreme opposite of the Coleman instructions, to answer from a traditional point of view. The control group registered a significant gain in mean score with an increase of 9.92 points. The progressivist group registered a mean increase of 68.84 points. The traditionalist group had a mean decrease of 141.68 points. The correlation between scores for the two testings for the three groups was . 88, .09, .15. Even with these results, the examiner argued that:
this does 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 (Stein \& Hardy, 1957, p. 329).

To demonstrate further that the MrAI is not suscep-
tible to faking, the same investigators returned to the initial experiment design by Callis and administered the inventory to two groups of student teachers, a control group of 36 subjects and an experimental group of 22 subjects, with standard instructions and with the instructions to "fake good" used by Callis. The following findings are reported: (a) only the control group increased its score significantly; (b) the variance of the control group increased from 840 to 931 , that of the experimental group increased from 660 to 1082; (c) the correlation between the two testings for the control group was .92, for the experimental group . 69 ; (d) the difference between the correlations was significant at the . Ol level. Since there was no difference in the mean scores of the experimental group, the investigators suggested that the faking instructions only served to confuse the subjects. Again they implied that the inventory is not susceptible to faking.

A very complete study of response sets and the MTAI is the work of Mitzel, Rabinowitz, \& Ostreicher (1955). MrAI scores for 204 superior and 204 inferior teachers selected by principals and superintendents on the criterion of "ability to get along with the pupils," were analyzed and three response sets identified. "Positive intensity" was defined as the ratio of strongly Agree to all positive
responses; "ivegative intensity" was defined as the ratio of strongly Disagree to all negative responses; and "irvasiveness" was based on the number of Undecided responses given by the teachers. 'lhe negative intensity response set was found to influence the test scores in such a way that test vaLidity was increased. rositive intensity was lound to exert very 1 ittle effect on MiNAI validity. Evasiveness was found to reduce the validity of the MrAI. The investigators sugsest:
> 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 (Mitzel, et al., 1955, pp. 20-21).

Also concerned with the problem of response sets and MTAI performance were Budd \& Blakely (1958) who asked two questions: (a) Is the scoring on the MTAI biased in favor of the extreme response positions? (b) What is the relationship between scores on the MTAI and the tendency of subjects to choose either extreme or moderate response positions on the inventory? A tabulatjon of the number of extreme responses (Strongly Agree or Strongly Disagree) and of moderate (Agree or Disagree) responses was made and classified as correct or incorrect in accordance with scoring key given in the monual. The results showed for the extreme response positions, 110 responses were keyed "correct," 97 "incorrect;" for the moderate response
positions, 112 were keyed "correct," 168 "incorrect." What is noteworthy is the large number of moderate responses keyed "incorrect." From this the investigators concluded that persons taking a moderate position on the items of the inventory would tend to receive lower scores.

Appendix B

PREFERRED INSTRUCTOR CHARACTERISTICS SCALE
What kind of an instructor do you prefer? In the following items you will find two instructor characteristics paired. From each pair choose the one characteristic you most prefer. Then mark your choice by circling either a or b. Do not omit any items. This is to find out your preferences. There are no right or wrong answers.

I prefer an instructor who:
l. a. treats us as mature people.
b. is an expert.
2. a. makes the classroom pleasant.
b. thinks logically.
3. a. understands our point of view.
b. is well known in his field.
4. a. is dedicated to his students.
b. is dedicated to his subject.
5. a. thinks logically.
b. is friendly.
6. a. is well known in his field.
b. makes the classroom pleasant.
7. a. is interested in us.
b. covers all the material.
8. a. is dedicated to his students.
b. knows the theoretical background of his subject.
9. a. thinks logically.
b. treats us as mature people.
10. a. is friendly.
b. is well known in his field.
ll. a. covers all the material.
b. understands our point of view.
12. a. is interested in us.
b. is dedicated to his students.
13. a. is an expert.
b. is dedicated to his students.
14. a. is well known in his field.
b. treats us as mature people.
15. a. covers all the material
b. makes the classroom pleasant.
16. a. understands our point of view.
b. is dedicated to his subject.
17. a. is interested in us.
b. knows the theoretical background of his subject.
18. a. is friendly.
b. covers all the material.
19. a. makes the classroom pleasant.
b. is dedicated to his subject.
20. a. knows the theoretical background of his subject.
b. understands our point of view.
21. a. is interested in us.
b. is an expert.
22. a. is dedicated to his students.
b. thinks logically.
23. a. treats us as mature people.
b. covers all the material.
24. a. is dedicated to his subject.
b. is friendly.
25. a. makes the classroom pleasant.
b. knows the theoretical background of his subject.
26. a. is an expert.
b. understands our point of view.
27. 2. is dedicated to his students.
b. is well known in his field.
28. a. is dedicated to his subject.
b. treats us as mature people.
29. a. is friendly.
b. knows the theoretical background of his subject.
30. a. is an expert.
b. makes the classroom pleasant.
31. a. thinks logically.
b. is interested in us.
32. a. treats us as mature people.
b. knows the theoretical backround of his subject.
33. a. is an expert.
b. is friendly.
34. a. thinks logically.
b. understands our point of view.
35. a. is interested in us. b. is well known in his field.
36. a. is dedicated to his students.
b. covers all the material.

Check to see if $y o u$ left any blanks.

## COOPERATING TEACHERS (PICS) DIRECTIONS

Your grade level
Your student teacher's name $\qquad$

PReferred Instructor characteristics scale
When you were a student what kind of an instructor did you prefer? In the following items you will find two instructor characteristics paired. From each pair choose the one characteristic you most prefer. Then mark your choice by circling either a or b. Do not omit any items. This is to find out your preference. There are no right or wrong answers.

Appendix C

STUDENT THACHING FINAL EVALUATION C.w.S.C. - Ellensburg, Washincton Date

District or Center

Student Teacher Supervising
Teacher $\qquad$
School

College Supervisor $\qquad$
Assignment: Types of sxperience: Units taught: Subject or Grade Level_

Personal and social Characteristics Intellectual Characteristics Professional Characteristics Teaching Abilities Elementary Subjects

(Type in headings below as convenient.)

Appendix $D$

INFORMATION CARD USED ON STUDENT TEACHER PRE-TEST
Full name: $\qquad$ Male or Female (Circle)

Year in school: Soph. Jr. Sr.
City or town where doing student teaching $\qquad$
Home of school where you will be Level of Teaching (Circle) Elem. Jr. High High Sch.

Will you be taking Ed. 490 this summer? $\qquad$
If no, what is your summer address?

Appendix E

## Dear Classroom Teacher:

May we have your cooperation in a study which endeavors to understand some of the effects student teaching has upon students. It is expected that the information gained will assist in improving our program at Central Washington State College. Your participation as a professional person is the key to the success of this study.

It is realized that you are very busy, but your finding time to answer the enclosed two scales will be of considerable help in understanding the class-room-envi ronment.

One scale measures preference between two types of teachers and the other measures teacher's attitudes. Your student teacher has already participated in the initial part of this study. The results will only become meaningful when accompanied by your answers.

As soon as you have completed the two scales, please return them in this stamped folder.

Thank you for your interest.

Sincerely yours,

Dennis Hudson
Student Teaching Research

I would appreciate your cooperation in this study and hope it may give us further insight into the program of our student teachers.

Dr. Ralph D. Gustafson
Director of Student Teaching

Please note:
The signatures have been redacted due to security reasons

$$
\text { Appendix } F
$$

Dear $\qquad$ :

We are asking your assistance in the study to understand some of the effects student teaching has upon students. It is expected that the information gained will assist in improving our program at Central Washington State College. The cooperation of all spring quarter student teachers and their classroom teachers is a vital key to its success.

Enclosed you will find two scales. One scale measures preference between two preferred types of teachers and the other measures teacher's attitudes. The same two scales are enclosed for your supervising classroom teacher accompanied by a letter of explanation.

My concern is for the scores only and individual identification will not be made. When both you and your classroom teacher have completed these scales, will you please return them in the self-addressed folder. Thank you for your cooperation and the best of luck on your student teaching experience.

Sincerely yours,
/s/ Dennis Hudson
Dennis Hudson
Student Teaching Research

Appendix G

Dear $\qquad$ :

I am working on a research project in the area of teacher training. It is sponsored by Central Washington State College and has received support from Dr. Gustafson, director of student teaching.

It is a study involving, in part, the expression of attitudes toward teaching and pupils of the supervising classroom teacher. The ratings are simple and conventional. Similar scales were collected from voluntary student teachers a few weeks before they began student teaching. Both classroom teacher attitudes and student teacher attitudes are important components in this study.
yach student teacher was given a self-addressed, stamped packet. It contained a letter of explanation, the Minnesota Peacher attitude Inventory, and the Preferred Instructor Characteristics Scale. This packet was to be given to the supervising classroom teacher upon arrival.

My request is simple. I am asking your help in reminding the classroom teachers and the student teachers to complete and return these scales before the end of spring quarter. My interest is for attitude scores only and individual identification will not be made. Our key concern is to better understand another dimension of the teacher preparation program. Thank you in advance for any possible help in getting as complete results as possible.

Sincerely yours,
/s/ Dennis Hudson
Dennis Hudson

