THE EFFECTS OF STUDENT TEACHING UPON ATTITUDELAL
CHARACTERISTICS CONSIDERED BASIC
FOR EFFECTIVE COUNSELORS

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

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Denton, Texas
December, 1970

The problem of this study was to determine the effects of student teaching upon student-centeredness and open-mindedness.

The experimental group was composed of 144 secondary student teachers enrolled at a state university in the southwest during the spring semester, 1970. The control group consisted of 77 non-student teachers at the same institution. Each subject was administered the Guilford-Zimmerman Temperament Survey and "Rokeach Dogmatism Scale." The "Professional Activity Inventory" (for Teachers) was administered to the experimental group as a pretest and posttest. Student teachers were also posttested with the "Rokeach Dogmatism Scale."

The dissertation was written in five chapters. Chapter I is an introduction. Chapter II is a review of related research. Chapter III includes the procedures and methods of collecting and treating the data. Chapter IV contains analyses of the data. Chapter V provides a summary of the study, conclusions, and recommendations.
The experimental group made lower scores on student-centeredness after student teaching, except for subjects in the fourth quarter. Subjects in the first quarter obtained a lower posttest mean which was significant beyond the .001 level.

Student teachers made higher scores on dogmatism on the posttest. The change for the total group was significant at the .03 level. The most open-minded subjects became significantly more dogmatic at the .01 level.

Female subjects were found to be significantly more open-minded than males. Differences between sexes on student-centeredness were not significant.

Negative correlations were found between dogmatism and student-centeredness. Three of the ten groupings were found to be significant at the .05 level.

No significant differences were found between the control group and the student teachers on any of the ten variables.

Several conclusions were made from the findings. Student teachers tend to become less student-centered and less open-minded after student teaching. Student teachers and students in general do not differ in temperament or open-mindedness. Female student teachers tend to be more open-minded than males. Student teachers who are open-minded also tend to be student-centered.
Recommendations were made from the conclusions. Student teachers should be encouraged to develop and maintain attitudes of open-mindedness and student-centeredness. Reasons for the lessening of student-centeredness and open-mindedness during student teaching should be discovered and alleviated. Student teachers should be prepared to understand the causes for lessening of student-centeredness and open-mindedness during student teaching. Student teachers who are open-minded and student-centered should be encouraged to consider becoming counselors. The effects of teaching upon attitudes should be determined by a systematic, broad-based, long-range institutional study. Since there is evidence that attitudinal characteristics considered basic for effective counselors are adversely affected by only eight weeks of student teaching, teaching experience should not be required as a prerequisite for entering the counseling profession.
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CHAPTER 1

INTRODUCTION

Although most states require counselors to have teaching experience prior to certification (8, 15), "no one knows what, if any, effect not having had teaching experience has upon the effectiveness of the school counselor" (13, p. 25). "The question of the value of teaching experience as a prerequisite for counseling is the subject of much discussion, but little research" (22, p. 175). Whether or not teaching experience has an adverse effect upon the effectiveness of counselors is a problem that needs to be resolved (6).

The efficacy of requiring teaching experience can be examined by determining the effect that teaching has upon attitudinal characteristics which are considered basic for effective counselors. It is necessary to measure attitudes prior to the attainment of any teaching experience, which is prior to student teaching. Attitudes developed during student teaching will affect subsequent teacher-pupil relationships. It is likely that two or three years of actual teaching experience may cause the attitudes to become more pronounced.

Determining the effects of student teaching upon open-mindedness and student-centeredness is one method of assessing the desirability of requiring teaching before counseling.
Background and Significance of the Study

Almost all school counselors come from the ranks of the teaching profession, which can be expected since almost all of the states and territories require teaching experience prior to certification as counselors (8, 15). This is as it should be according to most teachers, counselors, and administrators (12, 26). Some counselor educators advocate the continued use of teaching as a requirement for counseling (22). Hoyt (16) sees the counselor as an educator and suggests that those who identify with counseling or clinical psychology should not seek employment in public schools. Hudson (17) insists that not having taught would impede the counselor in working with students and teachers. Fredrickson and Pippert state that "actual teaching experience is an important prerequisite for employment of school counselors" (10, p. 27). None of the arguments for teaching experience is based upon research that indicates that the counselor's ability to counsel is improved by prior teaching experience.

There are many arguments against the requirement of teaching experience. Wrenn (27) cites the shortage of counselors and the possibility that teacher preparation is too narrow as prominent reasons for accepting persons from other sources. Rossberg (23) states that teacher education and teaching experience as requisites for certification are incompatible with true professionalism on the part of counselors. He sees no need in preparing for one profession in
order to gain entry into another. Dugan (9) expresses the need to identify functions and services for which counselors are qualified, which should lead to professionalism. In policy statements, the American Personnel and Guidance Association (1), American School Counselor Association (14), and the Association for Counselor Education and Supervision (3) did not mention the need for teaching as a prerequisite for counselors. Consequently, White and Forrest (25) proposed a model for preparing counselors with no teaching experience.

Counseling and teaching are held to be different activities which require different orientations. Arbuckle writes "...a major function of counselor education is to help former teachers unlearn most of what they learned as teachers!" (2, p. 254). Cohen (7) maintains that teacher education and teaching experience may create a role conception that is difficult to change. Too much time is spent "in helping prospective counselors unlearn attitudes and practices developed as teachers which may be antithetical to counseling" (11, p. 155). Twelve counselors were interviewed on how they experienced the process of role change from teacher to counselor. "The dysfunctional aspects of having taught outweighed the functional aspects and inhibited positive identification with, as well as impeding adjustment to, the new role of counselor" (13, p. 248).

A study by Campbell (6) found that counselors with a background in teaching used significantly more advising,
tutoring, and information-giving than those without teaching experience. Mazer (19, 20) discovered that counselors-in-training with teaching experience made three times the evaluative responses than those without experience. Two years of experience was enough to instill the evaluative attitude, which is significant since most states require at least two years of teaching experience for certified counselors.

The issue of teaching experience has been argued with much fervor but evidence either pro or con is meager (12, 21, 24). "It should suffice at this point to say that research that sheds any real light on the situation has not yet been conducted" (5, p. 19). The teaching requirement for school counselors has not been attacked with convincing research. Determining the effects of teaching upon attitudinal characteristics which are considered to be basic for effective counselors, such as open-mindedness and student-centeredness, may be helpful in assessing the need for teaching experience. There have been a large number of studies of counselor characteristics but none of them were designed to measure the characteristics before and after obtaining teaching experience.

Statement of the Problem

The problem of this study was to determine the effects of student teaching upon open-mindedness and student-centeredness, which are attitudinal characteristics considered basic
for effective counselors. The problem was divided into four sub-problems: (1) to measure the degree to which student teachers are open-minded and student-centered, (2) to determine whether or not student teachers and non-student teachers differ in open-mindedness or temperament, (3) to determine the correlation between open-mindedness and student-centeredness, and (4) to determine the changes in open-mindedness and student-centeredness as a result of student teaching.

Hypotheses

The following hypotheses were tested:

I. The mean on the posttest of the "Professional Activity Inventory" (for Teachers) will be significantly lower than the mean on the pretest for
   A. male student teachers,
   B. female student teachers,
   C. all student teachers combined,
   D. student teachers in the highest quarter,
   E. student teachers in the lowest quarter,
   F. student teachers of academic subjects,
   G. student teachers of non-academic subjects.

II. The mean on the posttest of the "Rokeach Dogmatism Scale" (Form E) will be significantly higher than the mean on the pretest for
   A. male student teachers,
   B. female student teachers,
C. all student teachers combined,
D. student teachers in the highest quarter,
E. student teachers in the lowest quarter,
F. student teachers of academic subjects,
G. student teachers of non-academic subjects.

III. There will be no significant difference between
the male subjects' and the female subjects' pretest means on
A. "Professional Activity Inventory" (for Teachers),
B. "Rokeach Dogmatism Scale" (Form E).

IV. There will be no significant difference between
the male subjects' and the female subjects' posttest means on
A. "Professional Activity Inventory" (for Teachers),
B. "Rokeach Dogmatism Scale" (Form E).

V. There will be a negative correlation between the
pretest mean on the "Professional Activity Inventory" (for
Teachers) and the pretest mean on the "Rokeach Dogmatism
Scale" (Form E) for
A. male student teachers,
B. female student teachers,
C. all student teachers combined,
D. student teachers of academic subjects,
E. student teachers of non-academic subjects.

VI. There will be a negative correlation between the
posttest mean on the "Professional Activity Inventory" (for
Teachers) and the posttest mean on the "Rokeach Dogmatism
Scale" (Form E) for
A. male student teachers,
B. female student teachers,
C. all student teachers combined,
D. student teachers of academic subjects,
E. student teachers of non-academic subjects.

VII. There will be no significant difference between
the mean for academic student teachers and the mean for
academic non-student teachers on
A. "Rokeach Dogmatism Scale" (Form E),
B. Guilford-Zimmerman Temperament Survey, General
   Activity,
C. GZTS, Restraint,
D. GZTS, Ascendance,
E. GZTS, Sociability,
F. GZTS, Emotional Stability,
G. GZTS, Objectivity,
H. GZTS, Friendliness,
I. GZTS, Thoughtfulness,
J. GZTS, Personal Relations.

VIII. There will be no significant difference between
the mean for non-academic student teachers and the mean for
non-academic non-student teachers on
A. "Rokeach Dogmatism Scale" (Form E),
B. GZTS, General Activity,
C. GZTS, Restraint,
D. GZTS, Ascendance,
E. GZTS, Sociability,
F. GZTS, Emotional Stability,
G. GZTS, Objectivity,
H. GZTS, Friendliness,
I. GZTS, Thoughtfulness,
J. GZTS, Personal Relations.

IX. There will be no significant difference between the mean for the total group of student teachers and the mean for the total group of non-student teachers on
A. "Rokeach Dogmatism Scale" (Form E),
B. GZTS, General Activity,
C. GZTS, Restraint,
D. GZTS, Ascendance,
E. GZTS, Sociability,
F. GZTS, Emotional Stability,
G. GZTS, Objectivity,
H. GZTS, Friendliness,
I. GZTS, Thoughtfulness,
J. GZTS, Personal Relations.

Definition of Terms

Student-centeredness is defined as a student-oriented preference as opposed to a teaching preference or subject-oriented preference as determined by the "Professional Activity Inventory" (for Teachers).
Open-mindedness is a tolerance for divergent points of view, flexibility with regard to new information, and it is the opposite of dogmatism as determined by the "Rokeach Dogmatism Scale" (Form E).

Limitations

This study was limited to secondary student teachers enrolled in the student-teaching block during the spring semester, 1970, at a university located in the southwest. There is no reason to assume that secondary student teachers at other institutions would differ in significant ways from those included in this study.

Basic Assumptions

It was assumed that the subjects responded honestly to the instruments. It was further assumed that changes in the means on the posttests were due to the experiences associated with student teaching.

Sources and Treatment of Data

Data were collected from student teachers and non-student teachers during the spring semester, 1970. The data were coded and submitted to the computer center at the university, where appropriate statistical formulae were used. Complete reports of procedures for collecting and treatment of data are given in Chapter III.
Summary

Since most counselors were formerly teachers and because most states require teaching experience for certified counselors, it is important to consider the effects of teaching upon desirable attitudes of open-mindedness and student-centeredness. It is necessary to measure attitudes prior to gaining teaching experience if changes are to be noted. This study was designed to determine the effects of student teaching upon attitudinal characteristics which are considered basic for effective counselors.
CHAPTER BIBLIOGRAPHY


23. Rossberg, R. H., "To Teach or Not to Teach: Is That the Question?" Counselor Education and Supervision, II (Spring, 1963), 121-125.


CHAPTER II

REVIEW OF RELATED RESEARCH

The issue of required teaching experience for counselors has been thoroughly discussed. Hill (24) and Ricker (47) summarize the major arguments, but the lack of definitive research prompted Shurtlef and Stone to write that the issue "will continue to be debated on the basis of tradition colored with emotion rather than logic or evidence" (55, p. 532). "There is no research evidence to substantiate the assumption that teaching experience makes for more effective counseling" (48, p. 179). Hill stated that nobody knows "in any dependable sense whether having had teaching experience influences his school counselor effectiveness" (25, p. 26). The issue of teaching experience and counseling effectiveness remains "a problem which needs to be resolved" (9, p. 26).

This study was designed to provide information regarding the effects of student teaching upon attitudinal characteristics that are considered basic for effective counselors. The results may be used to determine the efficacy of requiring counselors to have teaching experience.

Representative literature will be presented in three parts: (1) studies concerned with the need, design, and format of this study, (2) studies concerned with characteristics
of effective counselors, and (3) studies concerned with characteristics of student teachers.

Studies Concerned with the Need, Design, and Format of this Study

The need for this study was supported by the fact that almost all school counselors were formerly teachers, which would be expected since most of the states require teaching experience prior to certifying counselors (19, 28). Green (62) and others have proposed accepting counselors from sources in addition to school teachers. Rossberg (51) points out that teacher education and experience requirement for state certifying is incompatible with true professionalism on the part of counselors. American Personnel and Guidance Association and the Association for Counselor Education and Supervision do not mention the need for teaching experience prior to counseling (2, 6, 26). The need for this study was further supported by much evidence that teaching is not necessary to effective counseling and may be detrimental to it. There is a paucity of research related to the effects of teaching upon attitudes of counselors and no studies were found that measured attitudinal characteristics of effective counselors before and after obtaining teaching experience.

Hoyt (29) upheld the right of schools to require career commitment to education as evidenced by teaching experience. He sees the counselor as an educator first and foremost. The same opinion is expressed by Hudson, who wrote "principals
should refuse to hire counselors with no teaching experience" (30, p. 27). He asserts that not having taught would impede the counselor in working with both students and teachers. "There appears to be little question that actual teaching experience is an important prerequisite for employment of school counselors" (21, p. 27). Wilson (60) sampled opinions of teachers and counselors in regard to the value of teaching experience prior to counseling. One-half of the counselors and two-thirds of the teachers felt teaching experience is desirable for effective secondary school counseling. Another survey (48) found that 52 per cent of counselor educators did not feel teaching to be essential although some agreed it may be desirable. One study was found that compared forty-nine pairs of counselors with and without teaching experience. Those with teaching experience were better at providing vocational information and performing four of the six routine school tasks (46).

There are a number of studies which indicate that teaching experience adversely affects desirable counselor attitudes. Arbuckle cites evidence that suggest "... that teaching gives one so many bad counseling habits that a major function of counselor education is to help former teachers unlearn most of what they learned as teachers!" (5, p. 254). The same idea is expressed in another article which states that much time is required "... in helping prospective counselors unlearn attitudes and practices developed as
teachers which may be antithetical to counseling (22, p. 155).

Mazer (41, 42) found that former teachers who were enrolled in a counselor education program used evaluative responses three times more than similar enrollees who had no previous teaching experience. Two years of experience was sufficient to develop an evaluative attitude, which is particularly noteworthy since most states require two years of teaching experience. Cohen (12) points out that teacher education and experience may create a role conception that is hard to change. She also laments the possibility that preparation for teaching may deprive counselors of needed background in behavioral and social sciences. A study by Campbell (10) found that counselors with a background of teaching used significantly more advising, tutoring, and information-giving than those without such experience.

A recent study of forty-three counselors without teaching experience discovered that they were accepted by administrators, teachers, students, and parents. They understood school procedures and policies. Perhaps most important, the majority of principals stated that they would recommend hiring counselors without teaching experience (27). The significance of this study is the indication that counselors are able to function in the school setting without obtaining teaching experience.

There is no way of knowing whether or not teaching caused undesirable attitudes and characteristics which have
been reported. The need for measuring attitudes prior to teaching is clearly indicated. If the effects of teaching upon attitudinal characteristics are to be determined, it is imperative that the qualities be assessed prior to beginning student teaching. Student teaching is a period of guided teaching when the college student directs the learning of his pupils (3). As such, student teaching is very important in molding attitudes which affect subsequent teacher-pupil relationships. A number of studies have shown that attitudes are changed during the experience of student teaching (20, 37, 45, 54).

An important consideration in determining the effects of student teaching is to discover whether or not student teachers differ from students who do not plan to enter the teaching profession. A control group of non-student teachers was chosen so that it could be determined whether or not student teachers are a self-selected group that differs significantly from non-teachers.

The format of this study called for pretesting and posttesting of student teachers. The next problem was that of deciding which attitudes characterize effective counselors and how they can best be measured. The next section deals with research concerned with characteristics of counselors.
Studies Concerned with Characteristics of Effective Counselors

Research on characteristics of counselors is largely limited to studies of counselors-in-training rather than effective counselors who are actively engaged in their profession. Sprinthall (56) and others have criticized much of the research on personality variables and they emphasize the importance of investigating counselor behavior. Criteria for designating counselors as effective usually consists of subjective judgments of teachers, supervisors, or peers. Seldom is there specification as to the behavior that distinguishes competent from incompetent counselors. Another criticism of research with student counselors is the fact that they are self-selected and screened by the institutions usually only in terms of grades and academic aptitude. It would be helpful to measure attitudinal characteristics of teachers and others who have not chosen to become counselors.

In spite of the large number of studies that found no significant differences in personality variables, it remains necessary to identify and to measure the basic qualities that are considered to be characteristic of effective counselors.

The importance of the counselor's personality is noted by Boy and Pine, "... the role that a counselor assumes is basically an extension of his essence as a person" (7, p. 44). In the same vein, Appell asserts, "the most significant resource a counselor brings to a helping relationship is
himself" (4, p. 148). The American Personnel and Guidance Association (2) issued a policy statement which listed six basic qualities that characterize the effective counselor: (1) belief in each individual, (2) commitment to individual human values, (3) alertness to the world, (4) open-mindedness, (5) understanding of self, and (6) professional commitment. Two of these qualities are related to the individual in such a way that they could be described as student-centeredness.

Student-centeredness is important to the establishment of close personal relationships. According to Brans "... it is generally accepted that a successful counseling process is precluded without the establishment of a close relationship between the two parties" (8, p. 25). Demos and Zuwaylif (16) found that effective counselors possess more nurturance and affiliation, while less effective counselors had more autonomy, abasement, and aggression. Combs and Soper (13) reported that highly ranked counselors perceive in terms of people rather than things and they see their purpose as freeing rather than controlling.

Koile (35, 36) used student-centeredness as one criterion for selecting faculty advisors and counselors. Knock (34) discovered that counselors in preparation appear to be more student-centered than comparison groups of secondary school teachers and school administrators. "Student-centeredness may even be regarded as a 'given' for school counselors (34, p. 117)."
Open-mindedness is another basic quality listed by APGA. It implies that the counselor is receptive to new information and has respect for attitudes and beliefs of his client (2). Rokeach (49) describes the open-minded individual as one who does not distort information and can act upon information on its intrinsic merits unencumbered by irrelevant factors. Allport contrasts the rigid, dogmatic individual with the open-minded, flexible person:

A person who is insecure, self-distrustful, who feels threatened by life or otherwise inadequate, tends to have a congruent cognitive style which is rigid, field-bound, concrete, acquiescent. By contrast, the more active, able, secure, relaxed individual is able to perceive and think in channels that are flexible and on the whole better adapted to the objective demands of the situation he finds himself in (1, p. 270).

Lister wrote, "... counselors low in dogmatism have sufficient access to their ideas and feelings that they can easily develop a personally meaningful counseling style, whereas those high in dogmatism can only assume the protective coloration of what is perceived to be the 'right' approach" (38, p. 209).

"Good" counselors, as determined by supervisors, had lower scores on the "Rokeach Dogmatism Scale" (43). Counselors judged effective in another study also made lower scores on dogmatism, which "... appears to lend support to the statement that openmindedness is an important counselor quality" (52, p. 77). Sterfling, King, and Leaflgren (57) obtained the same results as their "good" candidates made
lower scores on the "Rokeach Dogmatism Scale." They also confirmed some of the findings of Demos and Zuwaylif when the good candidates scored lower on abasement and aggression.

Kemp (33) found that counselors with high scores on the "Rokeach Dogmatism Scale" were more evaluative, interpretive, probing, and diagnostic than the open-minded counselors. The study of Vacchiano, Strauss, and Schiffman (58) showed that dogmatism was related to a poor self-concept, lack of self-esteem, and general personality maladjustment. Kaplan and Singer (32) found that highly dogmatic individuals exhibit significantly lowered sensory acuity as compared with those who are relatively free of dogmatism. Wiscas and Mahon reported that "... low-rated counselors are likely to be more resistant to change and more rigid in the face of pressures" (61, p. 55).

McDaniel (39) indicated that tolerance for ambiguity is related to successful performance in the counseling practicum. Moredock and Patterson (44) measured personality characteristics of counseling students and found those at the practicum level to be more open-minded than students at other levels. No changes were found between scores at the beginning and end of the eight-week summer session.

There was no relationship between increases in interviewing skill and authoritarianism measured by the P Scale of the "Taylor Manifest Anxiety Scale" (17).
Using a number of instruments including the "Rokeach Dogmatism Scale" and the *Minnesota Teacher Attitude Inventory*, Dole (18) was unable to locate consistent significant relationships between selection variables and ratings. He suggests that undergraduate grade-point average and self-appraisal ratings of counselor potential may be predictors.

Wrightsman, Richard, and Noble (64) reported that the *Tennessee Self Concept Scale* appears to measure characteristics which are present in the highly-rated counselor. It was also concluded that the NDEA Institute did not have an effect on self-concept scores beyond that of other experiences.

Wrenn (63) used the *Guilford-Zimmerman Temperament Survey* and reported that counseling students scored high on the Restraint, Emotional Stability, Friendliness, Objectivity, and Personal Relations scales. Cottle and Lewis (15) corroborated the findings of Wrenn except for the Restraint scale. Male counselors also scored above the mean on the Friendliness and Mf scales. Johnson, Shertzer, Linden, and Stone (31) studied counseling effectiveness and non-intellectual characteristics of counselor candidates. The only significant finding from the *Guilford-Zimmerman Temperament Survey* was a negative correlation between effective female counselors and the Friendliness scale.

Mahan and Wicas (40) characterized advanced NDEA Institute students as "highly controlled, as sensitive to the
expectations of society and authority, as 'doers' rather than 'thinkers,' as defenders of the established order, and as rather repressed individuals not much given to introspection or self-analysis." Some authorities may consider these characteristics as being undesirable in counselors.

At this point it would be well to consider Whetstone's study (59) of personality differences between counselors and effective teachers. He concluded that counselors are less conforming, less ego-defensive, more benevolent, and they focus on sources of frustration more often.

This review of related literature points out that open-mindedness and student-centeredness are generally considered desirable attributes of effective counselors.

Studies Concerned with Characteristics of Student Teachers

Studies by Arbuckle (5), Campbell (10), Cohen (12), Garcia (22), and Mazer (41, 42) indicated that teaching experience may limit the effectiveness of counselors. In view of that information, a review of literature concerned with teachers' characteristics is in order. Gatzals and Jackson (23) concluded that most research attempts to correlate measures of teacher attitudes, needs, personality factors, adjustments, and intelligence with ratings of teaching effectiveness have not produced significant results. They state, "... very little is known for certain about the nature and measurement of teacher personality, or about the relation
between teacher personality and teacher effectiveness" (23, p. 574). Ryan's (53) conducted extensive research on the characteristics of teachers. Among his many findings were good teachers expressed liking for personal contacts with others; they expressed the belief that very few pupils are difficult behavior problems; and the poor teacher was found to be self-centered, anxious, and restricted. Knock (34) found secondary school teachers to be less student-centered than counseling students.

The initial teaching experience is obtained during student teaching, which is "a period of guided teaching when a college student assumes increasing responsibility for directing the learning of a group or groups of learners" (3, p. 9). Student teaching is a time when attitudes are developed and modified. Actual teaching experience will be affected by the attitudes which result from student teaching.

Cook (14) has conducted a number of studies using the Minnesota Teacher Attitude Inventory and the Guilford-Zimmerman Temperament Survey. He discovered relationships between the instruments are similar for student teachers and beginning teachers, but they differ from experienced teachers. Cook's research indicates that there may be personality changes as a result of increasing teaching experience. In regard to student-centeredness, he found "... student teachers have a higher mean than does the beginning teacher group which in turn has a slightly higher mean than the experienced
teacher group" (14, p. 366). The implication is that additional teaching experience lessens student-centeredness.

Lipscomb's study found significant changes occur in student teachers' expressed attitudes "... during their student-teaching experience. This was found to be true at better than the .001 level of confidence" (37, p. 159).

The changes that take place during student teaching have been reported in both directions. "Attitudes of student teachers improve during the period of time in which practice teaching is taken" (54, p. 679). Button's study suggests that "... experiences provided are very realistic and similar to regular teaching situations" (20, p. 381). His study of fifty student teachers found that Minnesota Teacher Attitude Inventory scores were lower as a result of student teaching. Osmon noted that the 222 secondary student teachers in his study "... showed a loss in mean MTAI points at less than 1 per cent level of significance during the student teaching experience" (45). Sandgren and Schmidt found the reverse to be true (54). Their "academic" group made an increase which was significant at the .05 level of confidence; the "non-academic" group made a gain which was significant at the .01 level; and the "combination" group's gain was also significant at the .01 level.

Rosenfold (50) administered the "Rokeach Dogmatism Scale" and the Minnesota Teacher Attitude Inventory to student teachers and their cooperating teachers. Dogmatic
teachers scored higher on the MTAI posttest while open-minded teachers were found to be less student-centered on the posttest. The cooperating teachers seemed to change in the direction of the student teachers' attitudes.

Prospective teachers were no more or less dogmatic than students in general, according to a recent study by Cappelluzzo and Brine (11). They were more dogmatic than a comparison group of experienced teachers. The contributions of Rokeach (49) to open and closed belief systems seems particularly relevant to teaching.

Summary

A review of the literature suggests that much research is inconclusive, contradictory, or nonsignificant. Some of the most informative studies were presented in order to validate the need for continued research in the areas of counselor effectiveness and the effects of teaching experience upon counselors.

Important to effective counselors are student-centeredness, which is a belief in and commitment to the individual, and open-mindedness, which is essential to understanding the individual. The effects of teaching upon these attitudinal characteristics need to be determined so that the almost universal requirement of teaching experience for counselors can be evaluated.
Characteristics of student teachers are modified as a result of the student-teaching experience, which is not unlike actual teaching experience. Student-centeredness and open-mindedness have lessened as a result of student teaching according to some of the studies cited. Further research is indicated.


50. Rosenfeld, Vila M., "Possible Influences of Student Teachers on Their Cooperating Teachers," Journal of Teacher Education, XX (Spring, 1959), 40-43.

51. Rossberg, R. H., "To Teach or Not to Teach: Is That the Question?" Counselor Education and Supervision, II (Spring, 1963), 121-125.


CHAPTER III

PROCEDURES AND METHODS

This study was an outgrowth of the problem of determining the efficacy of requiring teaching experience for counselors. Since nearly all counselors have had teaching experience and because most states require prior teaching for certified counselors (2, 4), it is desirable to study the effects of teaching upon attitudinal characteristics considered basic for effective counselors. Student teaching is the initial experience and, as such, it is important for establishing attitudes which will affect subsequent relationships with pupils. This study was done with the primary purpose of determining the effects of student teaching upon open-mindedness and student-centeredness. This chapter describes the subjects, instruments, procedures for collecting the data, and procedures for treating the data.

The Subjects

The experimental group was composed of students enrolled in the secondary student teaching block at a state university in the southwest during the spring semester, 1970. Only the subjects who completed all of the pretests and posttests were included in the study. No subject older than thirty-five years of age was included.
Of the 165 subjects who were pretested, 144 subjects completed their posttests. Two subjects became ineligible for the study when they withdrew from student teaching. The posttests of two subjects were lost by a college supervisor. Five subjects failed to attend the meetings which were used for posttesting. Three subjects did not complete the tests in the allotted time; they subsequently neglected to mail them as they had promised. A college supervisor did not contact any of his student teachers since his wife was seriously ill at the time. His students were contacted by mail and all except nine completed their posttests. Two sets of posttests were received by mail after all of the data had been processed.

The control group included students of the same classification and college majors. None of the control subjects was obtaining teacher certification. The control subjects were selected from two English classes, two political science classes, two art classes, two business classes, three psychology classes, one biology class, one journalism class, and one rehabilitation class. A total of seventy-seven subjects were selected and tested.

Instruments

The Guilford-Zimmerman Temperament Survey (3) has been used in a large number of studies during the past twenty years. Several studies (1, 6, 7, 18) have tried to identify
traits which characterize effective counselors. Jackson (5) found the scores to be stable over a period of eighteen months, with high test-retest reliability. The GZTS measures temperament in General Activity, Restraint, Ascendance, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, Personal Relations, and Masculinity-Femininity. There are thirty items for each of the ten traits.

The "Professional Activity Inventory" (for Teachers) is a research instrument which measures interest in student-oriented educational functions. It appears to be valid and reliable (9, 10, 11). The instrument has ninety triad, forced-choice items. Each triad consists of a statement representing a "primary teaching preference," a statement representing a "subject-oriented preference," and a statement representing a "student-oriented preference."

The "Rokeach Dogmatism Scale" (Form E) (13) has been used in a large number of studies to determine open-mindedness or closed-mindedness (8, 12, 14, 15, 16, 17). It consists of forty statements with which the subject agrees or disagrees.

Procedures for Collection of Data

Pretesting of the experimental group with the "Rokeach Dogmatism Scale," "Professional Activity Inventory," and Guilford-Zimmerman Temperament Survey was accomplished during the week prior to the beginning of student teaching. The
tests were administered during class time and make-up testing was done for the students who were absent. Posttesting of the student teachers was done eight weeks later during the final week of the semester. Because posttesting was done at the end of the school term, efforts to obtain 100 per cent participation by the subjects were unsuccessful. Many of the subjects never returned to the campus and they could not be contacted by mail or telephone.

The control group was obtained through the cooperation of professors who encouraged their students to complete the "Rokeach Dogmatism Scale" and the Guilford-Zimmerman Temperament Survey. Since there were no classes which contained large numbers of students who met the qualifications for the control group, it was necessary to test subjects in fourteen classes. The seventy-seven subjects represented more than half as many cases as were in the experimental group.

After all of the subjects were tested, they were assigned to groups on the basis of sex, college major, and scores on the tests. The academic group consisted of students with college majors in English, foreign language, mathematics, science, and social studies. All other majors were classified as non-academic. Experimental subjects were divided into the first and fourth quarters on the basis of their scores on the PAI and RDS. Those subjects who were most student-centered were in the first quarter of the PAI and subjects who were most open-minded were in the fourth quarter of the dogmatism scale.
Procedures for Treating the Data

At the conclusion of posttesting, the data were punched into cards for processing and the statistics were computed with electronic data processing equipment at the university computer center. The raw scores on the GZTS were converted to C-scores, which are comparable to one-half of T-scores. The mean C-score is five and it corresponds to the T-score of fifty; a C-score of six is the same as a T-score of fifty-five. The raw scores were converted so that score levels would be comparable from one trait to another. It also permitted the male and female scores to be equated on Ascendance and Friendliness, which are subtests in which sex differences have been identified.

Raw score formulas were used to determine the means, standard deviations, and product-moment correlation coefficients. A one-tailed test was used to determine the significance of differences found for research Hypotheses I, II, III, and IV. Two-tailed tests were used with Hypotheses VII, VIII, and IX. Pearson's product-moment correlations were used to test Hypotheses V and VI.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

ANALYSIS OF THE DATA

The basic purposes of this study were (1) to measure the degree to which student teachers are open-minded and student-centered, (2) to determine whether or not student teachers and non-student teachers differ in open-mindedness or in temperament, (3) to determine the correlation between open-mindedness and student-centeredness, and (4) to determine the changes in open-mindedness and student-centeredness as a result of student teaching. Nine hypotheses with numerous subsections were formulated and tested.

Hypothesis I

It was stated in Hypothesis I that the mean on the post-test of the "Professional Activity Inventory" would be significantly lower than the mean on the pretest for each of the seven subsections. The subsections were male, female, male and female combined, subjects in the first quarter, subjects in the fourth quarter, subjects with academic majors, and subjects with non-academic majors. The mean on the post-test was found to be lower in six instances and higher for the remaining subsection. The statistical analysis of data pertaining to the "Professional Activity Inventory" is presented in Table I.
### TABLE I

**EFFECTS OF STUDENT TEACHING UPON STUDENT-CENTEREDNESS**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>---------</td>
<td>----</td>
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<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>M</td>
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<td>27.58</td>
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<td>.14</td>
</tr>
<tr>
<td>M &amp; F</td>
<td>144</td>
<td>25.89</td>
<td>26.79</td>
<td>21.67</td>
<td>28.16</td>
<td>1.30</td>
<td>.10</td>
</tr>
<tr>
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<td>36</td>
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<td>43.39</td>
<td>23.11</td>
<td>3.41</td>
<td>.001</td>
</tr>
<tr>
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<td>14.80</td>
<td>-1.54</td>
<td>25.75</td>
<td>1.74</td>
<td>.04 **</td>
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<td>21.79</td>
<td>23.41</td>
<td>23.24</td>
<td>.37</td>
<td>.36</td>
</tr>
</tbody>
</table>

*One-tailed test.

**Opposite direction.

Subjects in the first quarter lost almost fifteen points on their posttest mean. The difference between the pretest and posttest means was significant beyond the .001 level.

Using the same test, Knock (6) found that counselors-in-training were more student-centered than either secondary school teachers or school administrators. It seems likely that high scores on the PAI may be indicative of suitable candidates for counselor education. It is particularly noteworthy that subjects in the first quarter made the most radical change in the opposite direction from student-centeredness.

Contrary to the hypothesis, the posttest mean for subjects in the fourth quarter was higher than the pretest mean.
It was found to be significant at the .04 level. A plausible explanation for the changes between pretest and posttest means for subjects in the first and fourth quarters is the tendency of extreme scores to regress toward the mean. It is also possible that the changes were due to actual modification of attitudes as a result of student teaching. Subjects with low pretest scores may have developed more positive attitudes toward students, while those with higher scores may have become somewhat less student-centered as a result of student teaching. Studies of student teachers using the Minnesota Teacher Attitude Inventory have contradictory results (4, 8, 10). The direction of attitude changes cannot be predicted accurately; however, Cook (3) found that student teachers score higher on the MTAI than teachers with experience. Teaching experience apparently mitigates against student-oriented attitudes.

A trend was established since six of the seven subsections showed a lessening of student-centeredness on the posttesting. A lower posttest score was made by seventy-four subjects while sixty-six made a higher score and four remained the same.

Hypothesis I was rejected as it related to six subsections and accepted as it related to one subsection.
Hypothesis II

It was stated in Hypothesis II that the mean on the posttest of the "Rokeach Dogmatism Scale" would be significantly higher than the mean on the pretest for each of the seven subsections. Statistical analysis of data related to the "Rokeach Dogmatism Scale" is presented in Table II.

TABLE II

EFFECTS OF STUDENT TEACHING UPON OPEN-MINDEDNESS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest</th>
<th></th>
<th>Posttest</th>
<th></th>
</tr>
</thead>
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<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>---------</td>
<td>----</td>
<td>---------</td>
<td>------------------</td>
<td>----------</td>
<td>------------------</td>
</tr>
<tr>
<td>M</td>
<td>44</td>
<td>-11.98</td>
<td>27.21</td>
<td>-2.55</td>
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<td>100</td>
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<td>24.69</td>
<td>-17.57</td>
<td>25.34</td>
</tr>
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<td>144</td>
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<td>25.91</td>
<td>-12.98</td>
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<td>1st Q</td>
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<td>15.05</td>
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<td>15.84</td>
<td>-38.30</td>
<td>24.37</td>
</tr>
<tr>
<td>N-Acad.</td>
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<td>-18.84</td>
<td>26.30</td>
<td>-11.33</td>
<td>28.38</td>
</tr>
</tbody>
</table>

*One-tailed test.

After student teaching, subjects in each subsection made scores which indicate that they were less open-minded than they were on the pretest. Every posttest mean was higher and two were significantly higher. The subsection of subjects in the first quarter made the greatest and most significant change in the direction toward dogmatism. A number of studies (5, 7, 9, 11) indicate that effective counselors are open-minded. APGA (1) lists open-mindedness as a basic
quality for effective counselors. Consequently, it seems that the subjects with the highest degree of open-mindedness are good candidates for counselor training and, as such, it is regrettable that they became more dogmatic after only eight weeks of student-teaching experience.

The posttest mean for the subsection which included all male and female subjects showed a lessening of open-mindedness which was significant at the .03 level. A higher posttest score was made by ninety-one subjects while forty-seven subjects scored lower and six remained the same.

A definite trend was established since all seven subsections made gains in the hypothesized direction. Hypothesis II was accepted as it related to two subsections and rejected as it related to the remaining five subsections.

**Hypothesis III**

It was stated in Hypothesis III that there would be no significant difference between male and female pretest means on the "Professional Activity Inventory" and the "Rokeach Dogmatism Scale." Table III provides the statistical data related to Hypothesis III.

Females were found to be more open-minded than males as the difference reached the .04 level of confidence. Females obtained a higher score on student-centeredness but the difference was not significant.
TABLE III

DIFFERENCES BETWEEN MALE AND FEMALE PRETEST MEANS FOR OPEN-MINDEDNESS AND STUDENT-CENTEREDNESS

<table>
<thead>
<tr>
<th></th>
<th>Male (N = 44)</th>
<th>Female (N = 100)</th>
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<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDS</td>
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<td>.04</td>
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<tr>
<td>PAI</td>
<td>23.11</td>
<td>27.11</td>
<td>.81</td>
<td>.57</td>
</tr>
</tbody>
</table>

*Two-tailed test.

Hypothesis III was accepted as it related to student-centeredness and it was rejected as it related to open-mindedness.

Hypothesis IV

It was stated in Hypothesis IV that there would be no significant differences between the male and female posttest means on the "Professional Activity Inventory" and the "Rokeach Dogmatism Scale." Table IV provides statistical data related to Hypothesis IV.

TABLE IV

DIFFERENCES BETWEEN MALE AND FEMALE POSTTEST MEANS FOR OPEN-MINDEDNESS AND STUDENT-CENTEREDNESS

<table>
<thead>
<tr>
<th></th>
<th>Male (N = 44)</th>
<th>Female (N = 100)</th>
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<th>p*</th>
</tr>
</thead>
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<td>PAI</td>
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<td>.59</td>
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</table>

*Two-tailed test.
Females obtained a higher mean on the PAI but the difference was not significant. The difference between the means on the RDS was found to be significant beyond the .01 level. Hypothesis IV was rejected as it related to open-mindedness, but it was accepted as it related to student-centeredness.

Hypothesis V

It was stated in Hypothesis V that there would be a negative correlation between the pretest mean score on the PAI and the pretest mean on the RDS. Means, standard deviations, levels of significance, and correlations of pretest means are provided in Table V.

### TABLE V

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
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<th>SD</th>
<th>M</th>
<th>SD</th>
<th>r</th>
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<td><strong>RDS Pretest</strong></td>
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<tr>
<td>M</td>
<td>44</td>
<td>-11.98</td>
<td>27.21</td>
<td>23.11</td>
<td>27.37</td>
<td>-.04</td>
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<td>.05</td>
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<td>-.02</td>
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### PAI Pretest

<p>| | | | | | | | |</p>
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<tr>
<th></th>
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<tbody>
<tr>
<td>RDS Pretest</td>
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<td></td>
<td></td>
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<td>F</td>
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</tr>
</tbody>
</table>

Negative correlations were found for all five subsections of this hypothesis; three of them were significant at the .05 level of confidence. The subsections which were found
to be significant were the female subjects, male and female subjects combined, and subjects with academic majors. Apparently a negative correlation exists between open-mindedness and student-centeredness. Student teachers who are open-minded also tend to be student-oriented. Those who are dogmatic prefer subject matter or teaching orientations rather than student-oriented choices on the PAI.

Hypothesis V was accepted since all five subsections showed negative correlations; three of them reached the .05 level of significance.

Hypothesis VI

It was stated in Hypothesis VI that there would be a negative correlation between the posttest mean on the PAI and RDS. Table VI contains statistical data related to this hypothesis.

**TABLE VI**

**CORRELATIONS BETWEEN OPEN-MINDEDNESS AND STUDENT-CENTEREDNESS ON THE POSTTEST**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>RDS Posttest</th>
<th>PAI Posttest</th>
</tr>
</thead>
<tbody>
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<td>SD</td>
</tr>
<tr>
<td>M</td>
<td>44</td>
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<tr>
<td>N-Acad.</td>
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<td>-11.33</td>
<td>28.38</td>
</tr>
</tbody>
</table>
Although none was significant, all five subsections of Hypothesis VI showed negative correlations. Student teachers who were open-minded were more likely to be student-centered than those who were more dogmatic. Hypothesis VI was accepted.

Hypothesis VII

Hypothesis VII stated that there would be no significant difference between the mean for academic student teachers and the mean for academic non-student teachers on the GZTS and RDS. Statistical analysis of data related to Hypothesis VII is presented in Table VII.

<table>
<thead>
<tr>
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<td>M</td>
<td>SD</td>
</tr>
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</tr>
<tr>
<td>GZTS A</td>
<td>5.19</td>
<td>2.09</td>
<td>5.06</td>
<td>1.83</td>
</tr>
<tr>
<td>GZTS E</td>
<td>4.80</td>
<td>1.81</td>
<td>4.64</td>
<td>1.73</td>
</tr>
<tr>
<td>GZTS E</td>
<td>4.54</td>
<td>1.76</td>
<td>4.86</td>
<td>1.74</td>
</tr>
<tr>
<td>GZTS O</td>
<td>4.55</td>
<td>1.79</td>
<td>4.81</td>
<td>1.71</td>
</tr>
<tr>
<td>GZTS F</td>
<td>5.07</td>
<td>1.67</td>
<td>5.29</td>
<td>1.72</td>
</tr>
<tr>
<td>GZTS T</td>
<td>6.14</td>
<td>1.96</td>
<td>6.00</td>
<td>1.57</td>
</tr>
<tr>
<td>GZTS P</td>
<td>4.04</td>
<td>1.93</td>
<td>3.90</td>
<td>1.70</td>
</tr>
</tbody>
</table>
Probabilities ranged from .94 to .57 except for the subtest for General Activity which was .06. Differences between academic student teachers and academic non-student teachers are small for ten of the eleven subtests. However, student teachers seem to have a lower level of energy and general activity than do subjects in the control group. No pattern was apparent between the scores of the two groups, which suggests that there are no differences other than the possible exception of General Activity.

The two groups of subjects are very much alike on open-mindedness with a correlation of .94. This finding is like that of Cappelluzzo and Brine (2) who found no significant difference in dogmatism between prospective teachers and students in general.

Hypothesis VII was accepted since none of the differences was found to be significant at the .05 level.

Hypothesis VIII

It was stated in Hypothesis VIII that there would be no significant differences between the mean for non-academic student teachers and the mean for non-academic non-student teachers on the RDS and GZTS.

Comparisons of means, standard deviations, t values, and levels of significance may be made from Table VIII. Probabilities ranged from .97 on Objectivity to .01 on Friendliness. Two subtests were found to be statistically
TABLE VIII

CORRELATIONS OF GZTS AND RDS SCORES MADE BY NON-ACADEMIC STUDENT-TEACHERS AND NON-ACADEMIC NON-STUDENT TEACHERS

<table>
<thead>
<tr>
<th>Test</th>
<th>ST (N = 61)</th>
<th>N-ST (N = 35)</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>RDS</td>
<td>-18.84</td>
<td>26.30</td>
<td>-15.40</td>
<td>23.88</td>
</tr>
<tr>
<td>GZTS G</td>
<td>5.38</td>
<td>2.33</td>
<td>4.77</td>
<td>2.39</td>
</tr>
<tr>
<td>GZTS R</td>
<td>3.52</td>
<td>1.49</td>
<td>5.17</td>
<td>1.42</td>
</tr>
<tr>
<td>GZTS A</td>
<td>4.64</td>
<td>1.76</td>
<td>5.60</td>
<td>2.17</td>
</tr>
<tr>
<td>GZTS S</td>
<td>5.03</td>
<td>2.30</td>
<td>5.37</td>
<td>1.97</td>
</tr>
<tr>
<td>GZTS E</td>
<td>4.59</td>
<td>1.65</td>
<td>5.00</td>
<td>2.11</td>
</tr>
<tr>
<td>GZTS O</td>
<td>4.86</td>
<td>1.62</td>
<td>4.57</td>
<td>1.46</td>
</tr>
<tr>
<td>GZTS F</td>
<td>5.00</td>
<td>1.32</td>
<td>4.09</td>
<td>1.44</td>
</tr>
<tr>
<td>GZTS T</td>
<td>5.31</td>
<td>1.69</td>
<td>5.91</td>
<td>1.73</td>
</tr>
<tr>
<td>GZTS P</td>
<td>3.97</td>
<td>1.80</td>
<td>3.80</td>
<td>1.47</td>
</tr>
</tbody>
</table>

significant; they were Ascendance at the .03 level and Friendliness at the .01 level. The control group scored higher on Ascendance, which is related to leadership habits and is the opposite of submissiveness and hesitation to speaking. Student teachers obtained a higher mean on Friendliness, which indicates tolerance and acceptance; it is the opposite of a fighting attitude.

Hypothesis VIII was accepted as it related to eight sub-tests and it was rejected as it related to the sub-tests of Ascendance and Friendliness.
Hypothesis IX

It was stated in Hypothesis IX that there would be no significant difference between the mean for the total group of non-student teachers and the mean for the total group of student teachers on the RDS and GZTS. The statistical data pertaining to this hypothesis are presented in Table IX.

TABLE IX

CORRELATIONS OF GZTS AND RDS SCORES MADE BY STUDENT TEACHERS AND NON-STUDENT TEACHERS

<table>
<thead>
<tr>
<th>Test</th>
<th>ST (N = 144)</th>
<th>N-ST (N = 77)</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>-18.98</td>
<td>25.91</td>
<td>-15.70</td>
<td>23.61</td>
</tr>
<tr>
<td>RDS</td>
<td>5.06</td>
<td>2.12</td>
<td>5.18</td>
<td>2.20</td>
</tr>
<tr>
<td>GZTS G</td>
<td>5.74</td>
<td>1.65</td>
<td>5.51</td>
<td>1.55</td>
</tr>
<tr>
<td>GZTS R</td>
<td>4.96</td>
<td>1.97</td>
<td>5.27</td>
<td>2.01</td>
</tr>
<tr>
<td>GZTS A</td>
<td>4.90</td>
<td>2.03</td>
<td>4.97</td>
<td>1.88</td>
</tr>
<tr>
<td>GZTS S</td>
<td>4.56</td>
<td>1.71</td>
<td>4.92</td>
<td>1.92</td>
</tr>
<tr>
<td>GZTS E</td>
<td>4.56</td>
<td>1.72</td>
<td>4.70</td>
<td>1.60</td>
</tr>
<tr>
<td>GZTS O</td>
<td>5.04</td>
<td>1.56</td>
<td>4.74</td>
<td>1.71</td>
</tr>
<tr>
<td>GZTS P</td>
<td>5.79</td>
<td>1.90</td>
<td>5.96</td>
<td>1.65</td>
</tr>
<tr>
<td>GZTS T</td>
<td>4.01</td>
<td>1.76</td>
<td>3.86</td>
<td>1.60</td>
</tr>
</tbody>
</table>

The probabilities ranged from .77 on Sociability to .17 on Emotional Stability. Student teachers had higher means on Restraint, Friendliness, and Personal Relations, while non-student teachers scored higher on the other seven variables. There were no significant differences in open-mindedness.
and temperament between student teachers and non-student teachers. Hypothesis IX was accepted.

Summary

Analyses of the data indicate that student-centeredness and open-mindedness were affected by the experience of student teaching. Although most of the attitude changes were not found to be statistically significant, only one was not in the hypothesized direction. Student teachers did not differ significantly from non-student teachers in open-mindedness or temperament traits. Evidently changes on post-test scores on open-mindedness and student-centeredness were due to the effects of student teaching rather than a trait peculiar to student teachers.

Six of the seven groupings of student teachers became less student-centered as evidenced by posttest scores which were lower than the pretest scores. Subjects in the fourth quarter, those who were the least student-centered on the pretest, made a significant gain. Subjects in the first quarter became significantly less student-oriented. Student teachers who would be most suitable for becoming counselors were adversely affected by the teaching experience.

All seven groupings of student teachers became less open-minded according to the posttest scores made after student teaching. The combined group of males and females as well as subjects in the fourth quarter became significantly.
more dogmatic after the eight-week period. Open-mindedness, which is recognized as basic to effective counselors, is adversely affected by student teaching.

No significant differences were found when male and female pretest and posttest means for student-centeredness were compared. However, females were found to be significantly more open-minded than males on both the pretest and the posttest.

Student-centeredness seems to be related to open-mindedness since negative correlations were found between the PAI and RDS on each of the five subsections on both the pretest and the posttest. Statistically significant correlations were found on the pretest means for females, males and females combined, and subjects with academic majors.

Student teachers and non-student teachers, when compared as total groups, did not differ significantly in open-mindedness or temperament traits. Subjects with non-academic majors differed significantly on two subtests. Student teachers scored higher on Friendliness, while the control group made a higher mean on Ascendence. No significant differences in temperament or open-mindedness were found between student teachers and non-student teachers.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Study

The problem of this study was to determine the effects of student teaching upon open-mindedness and student-centeredness. Additionally, the study sought to determine whether or not student teachers differ from students who do not plan to teach.

The experimental group was composed of 144 students enrolled in the secondary student teaching block at a state university in the southwest during the spring semester, 1970. The control group consisted of seventy-seven non-student teachers. Each subject was administered the Guilford-Zimmerman Temperament Survey and "Rokeach Dogmatism Scale" (Form E). The "Professional Activity Inventory" (for Teachers) was administered to the experimental group as a pretest and as a posttest. Student teachers were also post-tested with the "Rokeach Dogmatism Scale."

Hypothesis I stated that the mean on the posttest of the FAI would be significantly lower than the pretest mean. Six of the seven groupings had lower posttest means while the other one was significantly higher. Subjects in the highest quarter on student-centeredness lost nearly fifteen points.
which was highly significant. Although the trend was in
the direction of Hypothesis I, it was rejected.

Hypothesis II stated that the mean on the posttest of
the RDS would be significantly higher than the mean on the
pretest. All seven groupings had a higher posttest mean and
two were statistically significant. Subjects in the lowest
quarter, those who were most open-minded, made the greatest
change in the direction of dogmatism. The combined group of
males and females also became significantly more dogmatic
after eight weeks of student teaching. Hypothesis II was
rejected even though a definite trend was established.

Hypothesis III stated that there would be no significant
difference between male and female pretest means on the PAI
or RDS. There was no significant difference in terms of
student-centeredness, but females were found to be signifi-
cantly more open-minded than males. The first half of
Hypothesis III was accepted and the second half was rejected.

Hypothesis IV stated that there would be no significant
differences between male and female posttest means on the
PAI or RDS. Females were found to be significantly more
open-minded than males, but the difference on student-
centeredness was not found to be significant. The first
half of Hypothesis IV was accepted while the second half was
rejected.

Hypothesis V stated that there would be a negative corre-
lation between the pretest means on the RDS and PAI. Each of
the five groupings was found to have negative correlations, with three of them being significant. Hypothesis V was accepted.

Hypothesis VI stated that there would be a negative correlation between the posttest means on the RDS and PAI. Since all five groupings showed negative correlations, this hypothesis was accepted.

Hypothesis VII stated that there would be no significant differences between the mean for academic student teachers and the mean for academic non-student teachers on the RDS and GZTS. None of the ten subtests was found to have significant differences. Therefore, Hypothesis VII was accepted.

Hypothesis VIII stated that there would be no significant differences between the mean for non-academic student teachers and the mean for non-academic non-student teachers on the RDS and GZTS. No significant differences were found for eight of the ten subtests. Non-student teachers obtained a higher mean on Ascendance which was significant. Student teachers made a significantly higher mean on Friendliness. Hypothesis VIII was accepted as it pertained to eight subtests and it was rejected for the other two.

Hypothesis IX stated that no significant differences would exist between the total group of student teachers and the total control group on the RDS and GZTS. No significant differences were found and Hypothesis IX was accepted.
Conclusions

From the analyses of the data, several conclusions seem warranted:

Student teachers had a tendency to become less open-minded as a result of the student teaching experience. The subjects who were most open-minded were more likely to be adversely affected by student teaching.

There was a tendency for student teachers to become less student-centered after eight weeks of student teaching. The most student-oriented subjects were more likely to become less student-centered after student teaching. The subjects who were least student-centered were more likely to become more student-centered after the experience of student teaching.

Student teachers and students in general do not differ in terms of openness and temperament, which suggests that student teachers are not pre-selected on any of the variables studied. The implication is that changes in student teachers' attitudes were due to student teaching rather than a characteristic unique to student teachers.

Female student teachers tend to be more open-minded than males, which suggests that females who enter counseling are more likely to be tolerant and flexible than males. Student-oriented subjects cannot be identified on the basis of sex. Evidently males are almost as student-centered as females.
There is a tendency for student-centered subjects to be open-minded and for dogmatic subjects to be less student-centered. In other words, there is a negative correlation between dogmatism and student-centeredness.

Student teaching appears to be detrimental to the maintenance of open-mindedness and student-oriented attitudes. Subjects who seem to be desirable candidates for counselor education programs had a much higher degree of open-mindedness and student-centeredness prior to beginning student teaching.

Recommendations

In view of the conclusions of this study, several recommendations are made.

Student teachers should be encouraged to develop and maintain attitudes of open-mindedness and student-centeredness. These qualities are important for the teacher as well as the counselor and they should be fostered by the teacher-training institution.

The reasons for lessening of student-centeredness and open-mindedness during student teaching should be discovered and alleviated, if possible. It is desirable to understand the dynamics of the student-teaching experience.

Student teachers should be prepared to understand the possible causes for the lessening of student-centeredness and open-mindedness during student teaching.
Student teachers who are open-minded and student-centered should be encouraged to consider entering counselor education programs. Members of the counseling profession should recruit potentially effective people for counseling.

The effects of teaching upon attitudinal characteristics should be determined by a broad-based, systematic, and long range institutional study.

Teaching experience should not be required as a prerequisite for entering the counseling profession. Nothing revealed by this study indicates that teaching experience makes the counselor more effective. There is evidence that attitudinal characteristics considered basic for effective counselors are adversely affected by only eight weeks of student-teaching experience. The effect of two or three years of actual teaching is likely to cause teachers to become more dogmatic and less student-centered.
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