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A Study of Changes in Openness of Student-Teachers During the Student-Teaching Experience.

Conrad Richard Kinard
Louisiana State University and Agricultural & Mechanical College

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A STUDY OF CHANGES IN OPENNESS OF STUDENT TEACHERS
DURING THE STUDENT TEACHING EXPERIENCE

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
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requirements for the degree of
Doctor of Education

in

The Department of Education

by

Conrad Richard Kinard
B.S., Louisiana Polytechnic Institute, 1955
M.Ed., Louisiana State University, 1958
May, 1968
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TABLE OF CONTENTS

ACKNOWLEDGMENTS. ........................................ ii
LIST OF TABLES ........................................ vi
ABSTRACT ................................................ vii

CHAPTER

I. THE PROBLEM AND DEFINITIONS OF TERMS USED ...... 1
   Introductory Statement ................................ 1
   The Problem. ......................................... 6
   Statement of the problem ............................. 6
   Delimitations. ........................................ 7
   Definitions of Terms Used. ........................... 7
   Openness .............................................. 7
   College Student Problems Q-Sort. .................... 9
   Cooperating teacher. ................................ 9
   Supervising teacher. ................................ 9
   Student teacher. ..................................... 10
   Elementary student teacher .......................... 10
   Secondary student teacher. ......................... 10
   On-campus student teacher. ......................... 10
   Off-campus student teacher ......................... 10
   Importance of the Study. ............................ 10
   Organization of the Study. ......................... 12
## CHAPTER II. REVIEW OF THE LITERATURE ......................................... 14

Literature Related to the
Historical Background and
Development of the Concept
of Openness........................................ 14

Literature Related to Specific
Studies Concerned with the
Concept of Openness and
Success in Teaching and/or
Student Teaching................................. 21

## CHAPTER III. PLAN OF THE STUDY............................................. 30

Setting and Population of
the Study.............................................. 30

Variables, Measuring Instrument,
and Collection of Data............................ 33

Statement of Null Hypotheses
and Design of Study............................... 38

## CHAPTER IV. PRESENTATION AND ANALYSIS OF DATA.......................... 41

Changes in Openness of Student
Teachers During the Student
Teaching Experience................................... 42

Changes in Openness of Student
Teachers and Grade Level of
Student Teaching Experience........................ 45

Changes in Openness of Student
Teachers and Location of Student
Teaching Assignment.................................. 48

Changes in Openness of Student
Teachers and Overall Grade
Point Average.......................................... 51

Student Teacher Openness and
Judged Student Teacher
Effectiveness.......................................... 54

Summary.................................................. 57
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>58</td>
</tr>
<tr>
<td>Summary</td>
<td>58</td>
</tr>
<tr>
<td>Conclusions</td>
<td>64</td>
</tr>
<tr>
<td>Recommendations</td>
<td>65</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>68</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>73</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>74</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>84</td>
</tr>
<tr>
<td>VITA</td>
<td>90</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Extent of Student Teacher Participation in Investigation</td>
<td>33</td>
</tr>
<tr>
<td>II. Changes in Openness of Student Teachers During Student Teaching Experience</td>
<td>44</td>
</tr>
<tr>
<td>III. Comparison of Mean Changes in Openness of Student Teachers in Terms of Grade Level of Student Teaching Experience</td>
<td>47</td>
</tr>
<tr>
<td>IV. Comparison of Mean Changes in Openness of Student Teachers in Terms of Location of Student Teaching Assignment</td>
<td>50</td>
</tr>
<tr>
<td>V. Relationship of Mean Changes in Openness of Student Teachers to Overall Grade Point Average</td>
<td>53</td>
</tr>
<tr>
<td>VI. Relationship of Post-Test Openness Score of Student Teachers to Judged Student Teaching Effectiveness</td>
<td>56</td>
</tr>
<tr>
<td>VII. Openness Scores of On-Campus Elementary Student Teachers</td>
<td>84</td>
</tr>
<tr>
<td>VIII. Openness Scores of On-Campus Secondary Student Teachers</td>
<td>85</td>
</tr>
<tr>
<td>IX. Openness Scores of Off-Campus Elementary Student Teachers</td>
<td>87</td>
</tr>
<tr>
<td>X. Openness Scores of Off-Campus Secondary Student Teachers</td>
<td>89</td>
</tr>
</tbody>
</table>
ABSTRACT

The primary purpose of this study was to investigate changes in the psychological concept of openness of student teachers during their student teaching experience. More specifically, this investigation was concerned with a study of change in openness of student teachers in terms of grade level and location of the student teaching assignment. A secondary purpose of the study was to explore the relationship between mean changes in openness of student teachers and their overall grade point average as well as the correlation between openness and judged student teaching effectiveness.

Research cited gave some indication that the concept of openness was an important characteristic of the effective teacher. Within the framework of the effect of student teaching on openness in student teachers, two previous studies indicated conflicting conclusions, one showing a positive gain in openness while another revealed a negative change.

The population of the investigation consisted of 170 student teachers enrolled in the student teaching program at Louisiana State University during the fall semester, 1967-1968. On the basis of the grade level and location of the
student teaching assignment, the subjects were divided into four major groups as follows: On-Campus Elementary Student Teachers, On-Campus Secondary Student Teachers, Off-Campus Elementary Student Teachers, and Off-Campus Secondary Student Teachers. Subgroups were formed using combinations of the primary groups.

As a measure of openness, the instrument utilized in both the pre- and post-test was Freeze's College Student Problems Q-Sort. The objectives of the investigation dictated the use of three different statistical techniques, including the significance of the difference between correlated means, significance of the difference between uncorrelated means, and coefficients of correlation. All results were tested for significance at the .05 level of confidence.

The study was designed to test five null hypotheses. A consideration of the data collected and analyzed led to the following conclusions:

1. There was no significant change in the openness of student teachers during their student teaching experience. However, the change that did occur was generally in a positive direction.

2. There was no significant difference in changes of student teacher openness as a result of the grade level of their student teaching experience.

3. There was no significant difference in changes of student teacher openness as a result of the location of the
student teaching assignment.

4. There was no significant relationship between mean changes in openness of student teachers and their overall grade point average. It was noted that the relationship that did exist was negative in all four basic groups.

5. There was no significant relationship between openness of student teachers and their judged student teaching effectiveness. The relationship that did exist was negative in the on-campus groups and positive in the off-campus groups.

Based on the conclusions drawn, the primary implication of this study was that the experience of student teaching apparently had little measurable effect upon the concept of openness in student teachers.
CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

I. INTRODUCTORY STATEMENT

One of the most perplexing problems facing teacher education during the past half century has been the identification of the nature of good teaching and the subsequent planning of effective teacher training programs. In spite of the expenditure of millions of dollars and the contribution of countless man hours, the results of research efforts in this direction have been frustrating and disappointing—until recently.¹

Previous failures to find useful definitions of effective teaching may have stemmed from looking in the wrong places. For several generations teacher-education programs have operated with a concept of good teaching derived from the mechanistic view of behavior characteristic of American psychology during the past fifty years. Now a new emphasis in psychology has appeared on the scene which shifts the understanding of people from a mechanistic to a humanistic view. This new frame of reference seems to

provide better answers to the problem of teacher education.\(^2\)

In earlier approaches to defining the nature of excellence in teaching, the first concept of the good teacher was that of the scholar. If a person were knowledgeable, then he could teach others. To be sure, a good teacher must possess a degree of knowledge, but a study by Combs and Soper\(^3\) revealed that both good and bad teachers knew equally well what a good teaching situation should be like. This would seem to indicate that although knowing is important, considered alone it is not sufficient.

Another approach to defining good teaching was in terms of teacher competencies. The idea was to isolate the traits and methods of expert teachers and to teach beginners to imitate them. While this method had some merit, research efforts by the American Association of School Administrators indicated that there was no specific trait or method exclusively associated with good teaching.\(^4\)

The latest approach to defining good teaching is the "self as instrument" concept. Using this frame of reference, Combs has defined the effective teacher as "a unique human

\(^2\)Ibid.


being who has learned to use himself effectively and efficiently to carry out his own and society's purposes in the education of others." This definition is based on the principles of a new force in American psychology, a group known by varying names such as humanists, personalists, phenomenologists, or perceptual psychologists. The basic premise of this aggregation is that all behavior of a person is the direct result of his field of perception at the moment of his behaving. Their primary goal in teacher education is to develop qualities of "openness" in prospective teachers, a quality which Rokeach has defined as lack or rigidity in encountering and evaluating a unique or novel situation.

A growing number of educators currently agree with the perceptual psychologists that the teacher's personality, perception, attitude, and self-concept greatly affect successful teaching. In fact, the quality of these attributes may well be implicated in finding the "method" so long sought. In similar fashion, the attitude of openness to experience, characteristic of adequate persons, is also an

5 Combs, op. cit., p. 9.

6 Ibid., p. 12.


ingredient of successful and effective teachers.  

Bills reported,

... there appears to be direct relationships between openness of a teacher to his experience, both past and present, his judged teaching success, his effect on attitude toward self and others, the locus of responsibility for decision making within the classrooms, his ability to change in a learning situation, and the quality of helping relationships he offers pupils.  

The phenomenological concept of openness, lack of rigidity in encountering and evaluating unique or novel situations, is obviously linked to teaching personality and teaching success.  

While the case for openness as an aspect of judged teaching success appears to be well documented, the approach to enhancing this desired quality in prospective teachers may prove somewhat more cumbersome. Combs and Syngg stated,

Since perception is an internal process not open to direct manipulation from without, change in behavior cannot be brought about directly, but only through the kinds of experience people are exposed to. From a perceptual frame of reference therefore, the emphasis in dealing with people is upon the creation of the kinds of situations which facilitate or assist the process of perception change.

[References]

9Combs, op. cit., p. 78.


11Rokeach, loc. cit.

One aspect of the teacher education curriculum which is designed to produce changes in perceptual concepts of pre-service teachers is the program of student teaching. This procedure, recommended by Conant, Combs, and others, has historically been included as a culminating experience in the teacher preparation curriculum. However, despite the longevity of this time-honored activity in teacher education, there has been limited research conducted in the areas concerned with the impact of student teaching on the development of openness in prospective teachers. In many instances, these investigations have arrived at contradictory conclusions.

The fact that various patterns of supervised student teaching are being explored at colleges and universities in many different parts of the country serves to complicate the determination of the degree to which student teaching influences openness in student teachers. Notable among these patterns is the practice of conducting student teaching in off-campus schools. These facilities operate as separate institutions in all respects from on-campus laboratory schools with different lines of authority and perhaps different philosophies of education as well. The question is being raised in some quarters, "Can a superior student


14Combs, loc. cit.
teaching program actually result from this dual responsibility for one professional activity?"

Since the concept of openness is relatively new to many educators, there are numerous aspects of it that have not been explored. One of these is a comparison of the openness qualities found in elementary and secondary student teachers, both before and after their student teaching experience. Will one or the other of these two groups show a higher openness score at the beginning of this investigation? If so, will this difference be altered significantly during the course of their student teaching program? And if there is a significant alteration, how can it be explained? These are some of the questions this study will attempt to answer.

In summary, this study is based on the premise that openness is a criterion of judged teacher effectiveness and that student teaching may possibly influence the development of that trait. What remains to be determined is the effect, if any, that the type of student teaching experience has on developing openness in student teachers.

II. THE PROBLEM

Statement of the Problem. This study was concerned with five specific problems. They were:

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1. Do significant changes occur in the openness of student teachers during their student teaching experience?

2. If changes occur in openness of student teachers during their student teaching, are these changes related to the level of their student teaching experience (elementary versus secondary)?

3. If changes occur in openness of student teachers during their student teaching, are these changes related to the site of their student teaching experience (on-campus versus off-campus)?

4. If changes occur in openness of student teachers during their student teaching, are these changes related to their overall grade point average?

5. Is there a relationship between the openness of student teachers and their judged student teaching effectiveness (student teaching grade)?

**Delimitations.** This study was limited to those students enrolled in student teaching at Louisiana State University, Baton Rouge, Louisiana, during the fall semester of the 1967-1968 academic year.

**III. DEFINITIONS OF TERMS USED**

**Openness.**—The term openness is defined as the extent to which a person can receive, evaluate, and act on relevant information received from an outside source on its own merits, unencumbered by irrelevant factors in the situation. It is the ability to receive and evaluate information about a situation independently of how external forces wish you to act. The more open a person is, the more he can resist
external forces and act in accord with the merits of the situation. 16

Openness is characterized by a positive outlook or approach to life, an ability to make one's self visible, a willingness to disclose himself and to permit others to see him as he is, to know what he thinks, believes, and represents. Only people who perceive themselves as adequate can accomplish this. A person must feel himself basically fulfilled before he can give of himself to others and interact with others. 17 One who feels himself adequate, who feels that he can succeed, will act in a manner that will lead to success; a person who feels inadequate, who feels that he cannot succeed, will consequently act in ways that will lead to failure. 18 Therefore, an "open" person is one who possesses perceptual fields maximally open to experience along with a capacity for acceptance, 19 confident that whatever the situation may be, he can evaluate it on its own merits, free of bias and feelings of inadequacy, and proceed in a manner leading to success.

16 Rokeach, loc. cit.
17 Combs, op. cit., p. 68. 18 Ibid.
College Student Problems Q-Sort.—This instrument is a device designed to measure openness in college students. Developed by Chester R. Freeze at the University of Alabama in 1963, it features a method of presenting and scoring subjective choices in an objective fashion. In making a Q-Sort description, a person is given a set of cards, each bearing a descriptive statement. The subject is then asked to sort or arrange the statements in a quasi-normal distribution extending from the "least pressing" to the "most pressing" on the scale. When scored, the results yield information which is readily adaptable to statistical treatment.

For the purposes of this investigation, the College Student Problems Q-Sort was utilized as a device for measuring openness in student teachers. It is explained in detail in Chapter III and Appendix B of this study.

Cooperating Teacher.—For the purposes of this study, this term is used to denote the classroom teacher who provides daily supervision of student teachers.

Supervising Teacher.—Within the framework of this study, this term is used to denote the college teacher who devotes at least a portion of his time to working with cooperating teachers in planning the work of student teachers.

Student teacher.--Any student who was regularly enrolled in the College of Education in one of the several approved student teaching programs listed in the Louisiana State University General Catalogue.

Elementary student teacher.--Any student who was engaged in student teaching in grades one through six.

Secondary student teacher.--Any student who was engaged in student teaching in grades seven through twelve.

On-campus student teacher.--Any student who was engaged in student teaching at the Louisiana State University Laboratory School.

Off-campus student teacher.--Any student who was engaged in student teaching at an off-campus institution incorporated in the East Baton Rouge Parish public school system.

IV. IMPORTANCE OF THE STUDY

Historically, the education of teachers has suffered from a widespread belief that "he who knows can teach." In refuting this point of view, Andrews stated, "The present accelerated rate of the explosion of knowledge makes it absolutely impossible for a prospective teacher to really knows his field."^21 Concurrently, research by Combs^22 and

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other perceptual psychologists indicated that the dogmatic study of competencies and specific methods, while endowed with considerable merit, has not proved to be a panacea for ineffective teaching.

As a result of the documented inadequacies of the two previously mentioned approaches to developing effective teachers, educators have begun to search other avenues for answers to their problems. In this regard, recently developed concepts in related disciplines such as perceptual psychology, learning theory, personality theory, and social psychology, have produced provocative findings. These findings have emphasized the influence of a student's "self-concept" and his self perception of his role as an ideal teacher in explaining behavior and problems of behavior change. Combs suggested that teacher personality, self-concepts, and attitudes, will modify teacher effectiveness more than will academic competency. Openness, the ability to encounter a situation and evaluate it on its own merits, has proved to be directly related to judged teaching success. Furthermore, evidence indicated that a positive gain in openness was directly related to the teacher's individualization to pupil's reactions, lack of rigidity in pupil-teacher contact, and the ability to weigh pupil

23 Andrews, op. cit., p. 311.
24 Combs, loc. cit.
25 Bills, loc. cit.
participation regardless of socioeconomic, parental and ethnic considerations. Such evidence suggested that the enhancement of teacher openness may be the key to developing more effective teachers.

Specifically, the findings of this study should result in a better understanding of the effect of location and grade level of student teaching experiences on openness of student teachers. The importance of these findings stems from recent research indicating a significant correlation between teacher openness and judged teaching success. The burden being placed on student teaching facilities by the increasing number of potential teachers and the resulting policy of assigning student teachers to off-campus schools, also lend import to certain aspects of this investigation.

V. ORGANIZATION OF THE STUDY

This study was organized in the following manner:

Chapter I. The Problem and Definitions of Terms Used

Introduction
The Problem
Definitions of Terms Used
Importance of the Study
Organization of the Study

Chapter II. Review of the Literature

26Andrews, loc. cit.
Chapter III. Plan of the Study
Chapter IV. Presentation and Analysis of Data
Chapter V. Summary, Conclusions, and Recommendations.
CHAPTER II

REVIEW OF THE LITERATURE

The purpose of Chapter II was to present a review of relevant research which forms a basis for understanding the present study. The chapter was divided into two major sections: (1) literature related to the historical background and development of the concept of openness and (2) literature related to specific studies concerned with the concept of openness and success in teaching and/or student teaching.

I. LITERATURE RELATED TO THE HISTORICAL BACKGROUND AND DEVELOPMENT OF THE CONCEPT OF OPENNESS

Over the past seventy years, American psychology has been characterized by three great movements.¹ The first of these was stimulus-response psychology which originally grew out of attempts to apply the new techniques of the physical sciences to problems of human behavior. According to Combs,² its greatest effect upon education occurred in the 1920's and 1930's at which time educational psychology came into

²Ibid.
being and the ideas of stimulus-response psychology began to be applied to educational problems. This movement was essentially mechanistic in character, however, and as many teachers began to discover more humanistic approaches to learning, psychological theory lagged behind pedagogical practice.

Following World War I, American psychology was involved in a second great movement, largely stimulated by Freud and his followers. Combs described the effort by saying, "The effect of this psychoanalytic movement was to turn the attention of many psychologists to problems of human behavior outside the laboratory and they began to search for the causes of behavior in the life history of the individual. . . . Looking at man in this way provided useful clues for dealing with many of our educational problems. It still does, but the S-R and psychoanalytic psychological viewpoints are objective, descriptive ways of looking at behavior and lead to mechanistic or manipulative ways of working with people which are not acceptable in modern practice."³

As American education became increasingly humanistic in its philosophy, a third great psychological movement appeared on the scene. This movement has emerged as a result of the pioneering efforts of such noted researchers as

³Ibid.
Rogers,^4 Maslow,^5 Kelley,^6 Rokeach,^7 and Combs and Syngg.\(^8\) They have attempted to describe a new concept of personality structure and behavior based primarily on the principle of self-perception. More specifically, this group stated that a person's behavior at any given moment was the result of (1) how he saw himself; (2) how he saw the situation in which he was involved; and (3) the interrelations of the two.\(^9\)

According to these writers, the concepts of Kelley's "Fully-Functioning Self," Maslow's "Self-Actualizing Person," Rokeach's "Open Mind," Rogers' "Process Person," and Combs' "Perceptual Self" seem to have much to offer in solving the problems of teacher effectiveness.

Although the concept of openness developed more or less concurrently with the growth of perceptual psychology, the idea was not exactly unknown prior to World War I. John Dewey described the open-minded individual which was later

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^9Combs, op. cit., p. 12.
paraphrased by Keyes as follows:

Openmindedness may be defined as freedom from prejudice, partisanship, and such other habits as close the mind and make it unwilling to consider new problems and entertain new ideas. But it is something more active and positive than these words suggest. It is very different from empty-mindedness. While it is hospitality to new themes, facts, ideas, questions, it is not the kind of hospitality that would be indicated by hanging out a sign: "Come right in; there is nobody at home." It includes an active desire to listen to more sides than one, to give heed to facts from whatever source they come, to give full attention to alternative possibilities; to recognize the possibility of error in the beliefs that are dearest to us.10

As early as 1930, W. W. Charters11 rated open-mindedness as one of the twenty-five most important traits of the effective teacher. This rating was derived from an original list of 2,800 personal traits. In grades ten to twelve, the trait ranked ninth in importance, and had an overall ranking of twentieth.

During the same period, Barr and Emans12 analyzed 209 rating scales and found openmindedness to be an important personality characteristic of the effective teacher.


12A. S. Barr and Lester M. Emans, "What Qualities Are Prerequisite to Success in Teaching?" Nations Schools, 6:60-64, September, 1930.
Emlaw and others,\textsuperscript{13} regarded flexibility, or openness, as an indispensable criterion in successful teaching. The writers hypothesized that the "open" person had a willingness to explore, whereas, the individual with a closed mind was likely to be more judgmental in his relationships. A high degree of openness meant more flexibility which appeared to be a necessary characteristic of effective teaching. Open-minded individuals were better able to change and adapt, more open to suggestions and new ideas. As a result, they were more spontaneous and more inclined to encourage their students to develop their own ideas. The authors equated openness with a broadness of viewpoint and considered it as one of a cluster of abilities necessary in the successful teacher.

Weir\textsuperscript{14} submitted that openness was an essential criterion in teaching and in learning. The open-minded teacher was receptive to the alternative ways of thinking of the members of his classroom. He helped the students to develop the traits of openness by displaying in his own behavior an attitude of entertaining divergent ways of thinking. Weir insisted that the open-minded teacher was not only receptive to the varying ideas of the students, but was


aware of the alternatives present in the content he taught and adapted his methods and procedures accordingly.

The process of effective teaching begins with the selection of those who are to teach, according to the 1962 Yearbook of the Association for Supervision and Curriculum Development. Teacher selection should include many factors in addition to scholastic grade average and intellectual prowess as criteria for admission to programs of teacher preparation. As important as these criteria may be, the Yearbook pointed out that the critical need in the teaching profession is the recruitment of the largest possible number of individuals with adequate personalities. The editor and other contributors to the publication emphasized that openness to experience was one of the valid requirements for an adequate teaching personality.

Creativity has often been described as a concomitant to openness. Rokeach emphasized the probability of this relationship when he stated that his investigations of open and closed systems may be seen as a contribution to the study of creativity. MacKinnon established that one of


the most important dimensions in which the highly creative individual differed from the less imaginative person was that of the open and closed mind. Concerning the importance of openness to creativity, he stated that the thing that struck him most forcefully about creative people was their openness to experience.

Mooney conducted a long-term study of the nature of creativity and found that openness to new experience was one characteristic of human behavior that persisted in creative people. Mooney said,

The creative person seeks to extend his experiencing through holding himself open for increasing inclusions. This is evidenced by an inclination to take life as an adventure and a becoming, a curiosity and a willingness to understand what is going on in oneself and in related aspects of the environment, a desire to get out to the edges of conscious realization and to feel a way into the unknown, an interest in new ideas and fresh perspectives, a spirit of play and experimentation.18

Writing in the 1965 Yearbook of the Association for Supervision and Curriculum Development, Klohr19 discussed ways in which educational leaders could meet their responsibilities in a climate of change. One way suggested was the cultivation of openness to new experience, not only in themselves, but in others as well. As a means of enhancing this

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openness quality, Klohr recommended the development of oneself as an instrument of inquiry.

McDonald, in discussing the necessary circumstances for growth, identified openness as one of the maximal conditions:

To be open to life is the maximal condition for developing human potential. To be open in thought—fluent, flexible, and original; and open in affect—experiencing the potential feelings in an activity; and open in perception—meeting the potential stimuli in the world: these are the ways to maximum development of human potential. 20

II. LITERATURE RELATED TO SPECIFIC STUDIES CONCERNED WITH THE CONCEPT OF OPENNESS AND SUCCESS IN TEACHING AND/OR STUDENT TEACHING

Robert Bills 21 conducted a pilot study concerned with the question, "Does an 'open' teacher provide a different quality of relationship with children than a less 'open' teacher?" Utilizing the Teacher Problems Q-Sort as a device for measuring openness, the author paired teachers having a high degree of openness with those having a low degree of openness in grades three through six. The students of these teachers were then tested to determine their attitudes


toward self and others. Upon completion of the study, Bills' data showed that the more "open" the teacher, the more positive were the attitudes children held toward themselves and other people. He concluded that the openness qualities of the teachers were clearly influencing the personal qualities of the boys and girls.

During a guidance workshop, Benson observed the changes that occurred in the practices of the participants. In his study, people who were more flexible in their concept of themselves and others changed more than people who were less flexible in their concept of themselves and others. The data also revealed that members of the more flexible group altered their guidance programs more than did the members of the less flexible group. These results have import for this writer's study in that flexibility or adaptability to change and new experience are prime characteristics of an "open" person.

From his experiences in psychotherapy, Rogers outlined a stasis-process or closedness-openness continuum of personality change. Exploring the direct relationship between personality change and learning, he explained the conditions that seem to be present when a person moves from


"stasis" toward "process" in the act of becoming or learning. The conditions that appeared essential for desirable change were congruence, unconditional positive regard, empathic understanding, and an awareness on the part of the client that these factors were present in the therapist. By substituting student for client and teacher for therapist, these findings would seem to have significant application in teacher-student relations and in the teaching-learning process.

Emmerling\textsuperscript{24} attempted to answer the question asked by Bills in his earlier work, namely, "Does an 'open' teacher provide a 'different' quality of relationship with students than a less 'open' teacher?" Drawing his sample from a secondary level population, rather than an elementary population as Bills had done, the researcher utilized a Teacher Problems Q-Sort to determine the degree of openness in teachers. He randomly selected ten "open" teachers and ten less "open" teachers and administered a modification of the Barrett-Lennard Relationship Inventory and the Schuman Student Centeredness Scale to 600 of his students. The purpose of these measuring devices was to collect data on the students' perceptions of their teachers. The results of this study showed that teachers who were selected as more

\textsuperscript{24}Frank C. Emmerling, "A Study of the Relationships Between Personality Characteristics of Classroom Teachers and Pupil Perceptions of These Teachers" (unpublished Doctor's dissertation, Auburn University, Auburn, Alabama, 1961).
"open" were seen by their students as being significantly more empathically understanding, more positive and unconditional in their regard, more congruent, and more pupil-centered than was the less "open" group. The openness characteristics of the teachers markedly influenced the climate of the teaching situation.

Engle's study in 1961 was conducted in an effort to answer the question, "What effect does openness have on the person himself?" He administered the Teacher Problems Q-Sort to 110 teachers, principals, supervisors, superintendents, and librarians in a summer workshop at Auburn University. Dividing his sample population into two groups of fifty-five each on the basis of their openness scores, Engle then proceeded to test the hypothesis that participants who were identified as more "open" to their experience would change more in educationally significant ways than participants who were identified as less "open." His major conclusions were:

1. More "open" subjects were apparently superior in their ability to make positive change.

2. More "open" subjects evidenced more positive and accepting attitudes of themselves.

3. More "open" subjects became more understanding and more accepting of others.

In summary, Engle stated that obviously people who were "open" to their experience changed more readily and derived

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greater benefit from an educational endeavor than those who were less "open."

In a study of particular importance to this present investigation, Freeze\textsuperscript{26} attempted to explore the relationship of openness in student teachers, cooperating teachers, and supervising teachers. His population consisted of 145 student teachers, 131 cooperating teachers, and 16 college supervisors. Each of these groups was administered the appropriate Q-Sort testing instrument in order to determine degrees of openness. Since no such device was available for the student teacher group, Freeze constructed and validated a College Student Problems Q-Sort which was given both before and after student teaching. As a result of his efforts, the researcher was able to conclude that relatively little change in openness occurred in this group of pre-service teachers over a period of one semester. However, he did find that student teachers who were assigned to cooperating teachers and college supervisors, both of whom were below the median of their groups in openness, showed a significant decrease in their openness scores.

Supported by the United States Office of Education Cooperative Research Program, Bills\textsuperscript{27} initiated an

\textsuperscript{26}Chester R. Freeze, "A Study of Openness as a Factor in Change of Student Teachers" (unpublished Doctor's dissertation, University of Alabama, Tuscaloosa, 1963).

\textsuperscript{27}Robert Bills, Virginia Macagnoni, and Richard Elliott, Student Teacher Personality Change as a Function of the Personalities of Supervising and Cooperating Teachers,
investigation very similar to that of Freeze. Incorporating six Alabama colleges rather than one and utilizing a substantially larger population than his predecessor, Bills, too, sought to determine the changes in openness that occurred in student teachers during their student teaching experience. The author drew the following conclusions:

1. A significant negative change occurred in the openness of both elementary and secondary pre-service teachers during their student teaching experience.

2. The negative change in the openness of student teachers was significantly related to the openness of their cooperating teachers, but not to the openness of their college supervisors.

3. There was a significant relationship between the quality of the relationship high school students perceived they had with their student teachers and the openness of the pre-service teachers. In general, the more open the student teacher, the less positively he was perceived.

Conclusions one and three above were in direct conflict with the findings of Freeze's investigation. This was evidenced by the fact that while Freeze could not claim a significant change in student teacher openness, the change he did find was in a positive direction. In addition, he found that the more "open" pre-service teachers were more positively perceived by their students than were the less "open" student teachers.

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\(^{28}\)Freeze, loc. cit.
Gillett conducted a study on the affective relationships among student teachers' self-acceptance, acceptance of pupils, and acceptance by pupils, together with the changes in these relationships which occurred over the twelve-week period of student teaching. Analyzing his data by means of product-moment correlations and t-tests for the significance of the difference between means, the author drew the following conclusions:

1. Student teachers' self-acceptance and acceptance of pupils were not significantly related to their acceptance by pupils.

2. Changes in student teachers' self-acceptance are not significantly related to their acceptance by pupils.

3. Changes in student teachers' acceptance of pupils were significantly related to their acceptance by pupils.

Despite the somewhat negative tone of the above conclusions, Gillett did find that successful completion of student teaching was accompanied by a significant rise in the mean value of the pre-service teachers' acceptance of themselves and of their pupils.

The purpose of Johnson's study was to explore the relationship of personality structure to ratings of success
in student teaching. Using a population of 130 pre-service teachers, the researcher administered Rokeach's Dogmatism Scale, Form E, to determine the degree of open- and closed-mindedness of each participant. Noting that related research gave some indication that open-mindedness was an important characteristic of the effective teacher, Johnson was unable to substantiate this claim. His analysis revealed that there was no significant relationship between open- and closed-mindedness of student teachers and ratings of success in student teaching as determined by college supervisors. In addition, he found a low, but significant, positive relationship between closed-mindedness of student teachers and ratings of success in pre-service teaching as determined by cooperating teachers. As a result of these findings, Johnson concluded that the degrees of open- and closed-mindedness as indicated by scores on the Dogmatism Scale cannot be used as a predictor of success in student teaching if the ratings of college supervisors and cooperating teachers are used as the criterion.

According to a study by Lewis, certain personality attributes, as measured by the Structured-Objective Rorschach Test (SORT) correlated significantly with success in student teaching. These traits were practicality,

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deductive ability and moodiness. Utilizing an elementary and a secondary group, Lewis also found that elementary student teachers were more practical, more deductive, less rigid, less popular, and less persistent than were the secondary pre-service teachers. However, there was no significant difference between the mean grade point average earned in student teaching by the two groups. The author concluded that selected sections of the SORT can be of value in identifying successful pre-service teachers.

Barron\textsuperscript{32} conducted an investigation of the effect of videotape and micro-teaching technique on the openness of teacher trainees. Setting up three groups randomly drawn from elementary language arts methods courses, the researcher supplemented the regular class activities of group one with micro-teaching techniques, group two with public school classroom observation procedures, and group three with a non-annotated bibliography assignment. Utilizing a pre-test, post-test approach, with Bills' Teaching Problems Q-Sort as the measuring instrument, Barron found that only the groups whose classroom activities were supplemented by videotape and micro-teaching techniques experienced a significant positive gain in openness. Thus, assuming that openness was a criterion for successful teaching, he concluded that the use of videotape and micro-teaching technique was an excellent means of developing effective teachers.

CHAPTER III

PLAN OF THE STUDY

The purpose of Chapter III was to develop and explain in detail the procedures followed in accomplishing the objectives of this investigation. In order that these methods might be described with greater clarity, this portion of the study was presented under three major headings. These divisions were: (1) Setting and Population of the Study; (2) Variables, Measuring Instrument, and Collection of Data; and (3) Statement of the Null Hypotheses and Design of the Study.

I. SETTING AND POPULATION OF THE STUDY

This investigation was conducted at Louisiana State University, Baton Rouge, Louisiana, during the fall semester of the 1967-1968 academic year. The population considered in the study consisted of all students who were regularly enrolled in an approved student teaching program at this institution during the period stated. This number included all prospective teachers registered for student teaching. The sample, or the subjects who actually participated in the investigation, was drawn from the total population of student teachers. However, this group could not be described as a
random sample because it was not randomly selected. Garrett\(^1\) applied the term "incidental or accidental sampling" to those groups used primarily because they were readily available. Probably an even more accurate description for the group used in this study was "voluntary sample" since the subjects were specifically selected, but participated or refused to participate on the basis of their own volition. Encouragement to take part was provided in the form of a letter (see Appendix A) co-signed by the Dean of the College of Education and this investigator.

Since this study was concerned with making certain comparisons between elementary and secondary student teachers, the subjects were divided into four major groups on the basis of grade level and location of the assignment for student teaching. Five additional groups were also established, using combinations of the original four. These groups and their descriptions were as follows:

- **Group One (G1)** - On-Campus Elementary Student Teachers
- **Group Two (G2)** - On-Campus Secondary Student Teachers
- **Group Three (G3)** - Off-Campus Elementary Student Teachers
- **Group Four (G4)** - Off-Campus Secondary Student Teachers
- **Group Five (G5)** - Total Group of Elementary Student Teachers

Group Six (G6) - Total Group of Secondary Student Teachers

Group Seven (G7) - Total Group of On-Campus Student Teachers

Group Eight (G8) - Total Group of Off-Campus Student Teachers

Group Nine (G9) - Total Group of Student Teachers

The location of the student teaching experience, whether on-campus or off-campus, was arbitrarily determined by the Director of Student Teaching with some consideration given to student preferences. All on-campus student teaching was done in the Louisiana State University Laboratory School, while off-campus student teaching assignments were made to schools of the East Baton Rouge Parish public school system.

The prescribed programs of student teaching conformed in all respects to the course descriptions set forth in the 1967-1968 copy of the Louisiana State University General Catalogue. No attempt was made to control or alter these patterns in any way. In addition, no effort was made to fix or stereotype the supervisory technique of the cooperating and supervising teachers involved.

In Table I is presented in tabular form the number of student teachers who participated in this study in each of four major groupings as compared to the number of student teachers registrants in each of these four groups. An inspection of the totals reveals that of 241 student teachers registered for student teaching, 172 subjects took part in the investigation. These figures show that 71.1 per cent of the total population was involved in the experiment.
TABLE I
EXTENT OF STUDENT TEACHER PARTICIPATION IN INVESTIGATION

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number of Student Teachers Registered</th>
<th>Number of Student Teachers Participating</th>
<th>Per Cent of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Elementary Student Teachers (G1)</td>
<td>24</td>
<td>24</td>
<td>100.0</td>
</tr>
<tr>
<td>On-Campus Secondary Student Teachers (G2)</td>
<td>75</td>
<td>56</td>
<td>74.7</td>
</tr>
<tr>
<td>Off-Campus Elementary Student Teachers (G3)</td>
<td>78</td>
<td>60</td>
<td>76.9</td>
</tr>
<tr>
<td>Off-Campus Secondary Student Teachers (G4)</td>
<td>64</td>
<td>32</td>
<td>50.0</td>
</tr>
<tr>
<td>Totals</td>
<td>241</td>
<td>172</td>
<td>71.1</td>
</tr>
</tbody>
</table>

II. VARIABLES, MEASURING INSTRUMENT, AND COLLECTION OF DATA

The principal variables in this study were: (1) the openness of the student teachers involved as measured by a pre- and post-test administration of Freeze's College Student Problems Q-Sort;\(^2\) (2) the judged student teaching effectiveness of the student teachers involved as measured by the grade earned in student teaching; and (3) the overall grade

point average earned by the student teachers involved during their tenure in higher education.

The measuring instrument utilized in this study was Freeze's College Student Problems Q-Sort. This device was specifically designed and validated by Freeze to determine the degree of openness in college students.

The Q-Sort technique or Q-methodology was devised by Stephenson.\(^3\) This technique is a method of presenting and scoring subjective choices or decisions in an objective manner. In making a Q-Sort description, a person is given a set of cards, each bearing a descriptive statement. The subject is then asked to sort or arrange the statements in a quasi-normal distribution extending from the "least pressing" to "most pressing" on the scale. When scored, the results yield information which is amenable to statistical treatment. The number of descriptive statements and the categories into which the descriptions are sorted may vary with different Q-Sorts.

The College Student Problems Q-Sort used in this study was developed by Chester R. Freeze\(^4\) at the University of Alabama in 1963. It contains 84 descriptive statements representing problems of concern to college students. These statements were selected from the expressed problems of more


\(^4\)Freeze, *loc. cit.*
than 200 under-graduate teacher-trainees in the College of
Education at the University of Alabama.

In order to validate the instrument, Freeze utilized
the works of Rogers⁵ and Barrett-Lennard.⁶ Rogers described
what appeared to be the necessary and sufficient conditions
for promoting openness in a client. Barrett-Lennard investi­
gated these conditions by constructing a Relationship
Inventory designed to measure the conditions that Rogers had
described. The data of Barrett-Lennard's study supported
Rogers' conclusion that successful therapists were seen by
clients as being more congruent, more emphatic in therapy
relationships, and more unconditional and positive in regard
for clients than were less successful therapists. The con­
clusion was that the ability of a person to enter a helping
relationship may be directly related to one's openness
characteristics and the consequent reflection of congruence,
empathy, and positiveness and unconditionality of regard in
helping relationships. An inspection of Barrett-Lennard's
Relationship Inventory revealed "adequate split-half internal
reliability."⁷

⁵Carl R. Rogers, "The Necessary and Sufficient Con­
ditions of Therapeutic Personality Change," Journal of

⁶G. T. Barrett-Lennard, "Dimensions of Perceived
Therapist Response Related to Therapeutic Change" (unpub­

⁷Freeze, op. cit., p. 37.
Freeze capitalized on these findings. The College Student Problems Q-Sort was administered to 145 student teachers at the University of Alabama in order to determine the degree of openness present. Two groups were then identified on the basis of openness scores. The "more open" group was comprised of ten students having high openness scores and the "less open" group contained eight students who had low openness scores. Freeze then administered a modified form of Barrett-Lennard's Relationship Inventory to 447 students taught by the 18 student teachers. The differences found in the way students perceived the "more open" and "less open" student teacher groups were analyzed by means of the analysis of variance technique.

On each of the four variables present in the Relationship Inventory, namely congruence, empathic understanding, level of regard, and unconditionality of regard, significant differences were found in favor of the "more open" group of student teachers. Thus, Freeze concluded that, "The difference in the two groups as shown by the F ratio indicates on the total relationship variables that the 'more open' student teachers provided to a greater degree the conditions for growth toward openness as compared to students taught by the 'less open' student teachers. These data indicate significant validation of the College Student Problems Q-Sort at the .001 level of confidence."  

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8Freeze, op. cit., p. 52.
A copy of Freeze's College Student Problems Q-Sort, an instruction sheet, a recording form, a record sheet, and scoring instructions are found in Appendix B of this study.

Data necessary for the completion of this investigation were collected during and immediately after the fall semester, 1967-1968. In the first week, prior to initial meetings between student teachers and cooperating teachers, pre-experiment openness scores were obtained for 172 elementary and secondary student teachers by administering the College Student Problems Q-Sort. This process was repeated during the last two weeks of the semester in order to secure post-experiment openness scores for the same groups of student teachers. Two subjects dropped between testing periods, leaving a total of 170 student teachers who participated in the study. Both Q-Sorts were graded by the Louisiana State University Computer Center following the scoring instructions and computer program already referred to in Appendix B.

Student teaching grades for the participants, representing judged student teaching effectiveness for the purposes of this investigation, were obtained from semester grade lists on file in the office of the Director of Student Teaching. Overall grade point averages were taken from individual semester grade sheets located in the office of the Dean of the College of Education. Information concerning both of these variables was gathered shortly after the close of the fall semester.
After all data were collected and coded on IBM Code Sheets, the tabulations were forwarded to the Louisiana State University Computer Center for key-punching, programming, and statistical analysis.

III. STATEMENT OF NULL HYPOTHESES AND DESIGN OF STUDY

As a means of lending purpose, direction, and clarity to this investigation, a set of five null hypotheses was developed, tested, and ultimately accepted or rejected. These null hypotheses, with a brief explanation of each, were:

1. There is no significant change in the openness of student teachers during their student teaching experience as measured by the College Student Problems Q-Sort. This null hypothesis was tested by comparing the mean score of the total group of student teachers on the pre-test with the mean score of the total group of student teachers on the post-test.

2. There is no significant difference between changes in openness that may occur in student teachers as a result of the grade level of their student teaching assignment. There were two levels of student teaching assignments involved in this study: elementary and secondary. This null hypothesis was tested by comparing the mean change in openness of On-Campus Elementary Student Teachers (G1) with On-Campus Secondary Student Teachers (G2), Off-Campus
Elementary Student Teachers (G3) with Off-Campus Secondary Student Teachers (G4) and the Total Group of Elementary Student Teachers (G5) with the Total Group of Secondary Student Teachers (G6).

3. There is no significant difference between changes in openness that may occur in student teachers as a result of the location of their student teaching assignment. For the purposes of this investigation, the two locations considered for student teaching were on-campus and off-campus. This null hypothesis was tested by comparing the mean change in openness of On-Campus Elementary Student Teachers (G1) with Off-Campus Elementary Student Teachers (G3), On-Campus Secondary Student Teachers (G2) with Off-Campus Secondary Student Teachers (G4), and the Total Group of On-Campus Student Teachers (G7) with the Total Group of Off-Campus Student Teachers (G8).

4. There is no significant relationship between changes in openness that may occur in student teachers during the student teaching assignment and the overall grade point average of the student teachers. This null hypothesis was tested by correlating the changes that occurred in openness of the Total Group of Student Teachers (G9) with the overall grade point averages of the Total Group of Student Teachers (G9).

5. There is no significant relationship between the student teachers' openness as measured by the post-test administration of the College Student Problems Q-Sort and
the judged teaching effectiveness of the student teachers as measured by the grade earned in student teaching. This null hypothesis was tested by correlating the openness of the Total Group of Student Teachers (G9) at the conclusion of student teaching with the student teaching grades earned by the Total Group of Student Teachers (G9).

The purposes of this study, as set forth in the null hypotheses, dictated the statistical design and procedures that were incorporated into this investigation. In testing null hypotheses one, two, and three, the "t-test" was considered the appropriate measure and the difference between group means was computed, testing for significance at the .05 level of confidence. The technique used in determining the relationships set forth in null hypotheses four and five was the coefficient of correlation. These coefficients were also subjected to a test for significance at the .05 level of confidence.

In concluding Chapter III, it should be emphasized that all subjects involved in this investigation were assured that their responses would be used for research purposes only and would in no way affect their student teaching grade, their personal record, or their future in the College of Education. While there was an awareness that a study was being conducted, the student teachers had no information concerning the nature of the research until their part in the study had been completed.
CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of Chapter IV was to report and analyze the findings of this investigation. In order to promote clarity and understanding, this chapter was divided into five sections. Each section presented data, statistical treatment, and interpretation pertinent to one of the five null hypotheses recorded in Chapter III. The discussion was organized under the following headings:

1. Changes in Openness of Student Teachers During the Student Teaching Experience;
2. Changes in Openness of Student Teachers and Grade Level of Student Teaching Experience;
3. Changes in Openness of Student Teachers and Location of Student Teaching Experience;
4. Changes in Openness of Student Teachers and Overall Grade Point Average; and
5. Student Teacher Openness and Judged Student Teaching Effectiveness.

Tables were included for the purpose of illustration. All primary data, namely the pre- and post-test openness scores of the subjects, were presented in Appendix C.
I. CHANGES IN OPENNESS OF STUDENT TEACHERS DURING THE STUDENT TEACHING EXPERIENCE

The purpose of this portion of the study was to determine the changes in openness of student teachers, if any, that occurred during the student teaching experience, using the College Student Problems Q-Sort as the measuring instrument. In order to accomplish this objective, mean scores were computed for each of the four major groups and the total group on both the pre- and post-test. Having completed these computations, it was necessary to initiate a test to determine significance.

The technique decided upon was the test for the significance of the difference between two correlated means. Garrett has designated this experimental design the single group method and has stated that it was used "when the problem is concerned with the significance of the difference between correlated means obtained from the same test administered to the same group upon two occasions."\(^1\) The formula for this statistical design is:

$$SE_D = \sqrt{\frac{\delta^2}{m_1} + \frac{\delta^2}{m_2} - 2r_{12} \frac{\delta}{m_1} \frac{\delta}{m_2}}$$

(SE of the difference between correlated means)\(^2\)

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2Ibid.
After calculating the SE_D, the t-ratios were computed by dividing the difference between the means by the SE_D. Level of significance was determined by comparing the obtained t-ratios with those shown in Table D of Garrett's book.\(^3\)

In Table II are revealed the changes that occurred in openness of student teachers during the student teaching experience. As the table shows, the mean scores for all four groups on both the pre- and post-test were very similar, thus indicating little mean change. The highest group mean openness score on the pre-test was recorded by the Off-Campus Elementary Student Teachers at 19.17. However, this same group was the only one to show a negative change in openness during student teaching, scoring 19.00 on the post-test. The lowest group mean openness score on the pre-test was earned by the On-Campus Secondary Student Teachers with 16.31 while the Total Group of Student Teachers scored 17.75.

On the post-test, the On-Campus Elementary Student Teachers recorded the highest score, 19.74, while the Off-Campus Secondary Student Teachers were lowest at 18.22. The Total Group post-test score was 18.77.

The largest mean gain in openness noted during the semester was 2.13 registered by the On-Campus Secondary Student Teachers. This mean gain also produced the largest t-ratio, 1.03, but was not significant at the .05 level of

\(^3\)Ibid., p. 449.
<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Pre-Test Score</th>
<th>Mean Post-Test Score</th>
<th>Mean Change</th>
<th>Group's t-Ratio</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Elementary Student Teachers (G1)</td>
<td>23</td>
<td>18.91</td>
<td>19.74</td>
<td>.83</td>
<td>.27</td>
<td>NS*</td>
</tr>
<tr>
<td>On-Campus Secondary Student Teachers (G2)</td>
<td>55</td>
<td>16.31</td>
<td>18.44</td>
<td>2.13</td>
<td>1.03</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Elementary Student Teachers (G3)</td>
<td>60</td>
<td>19.17</td>
<td>10.00</td>
<td>-.17</td>
<td>-.09</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Secondary Student Teachers (G4)</td>
<td>32</td>
<td>16.75</td>
<td>18.22</td>
<td>1.47</td>
<td>.40</td>
<td>NS*</td>
</tr>
<tr>
<td>Total Group Student Teachers (G9)</td>
<td>170</td>
<td>17.75</td>
<td>18.77</td>
<td>1.02</td>
<td>.84</td>
<td>NS*</td>
</tr>
</tbody>
</table>

*Not significant at the .05 level of confidence.
confidence. The smallest mean change was -.17 shown by the Off-Campus Elementary Student Teachers. This figure resulted in a t-ratio of -.09 and while showing a slight change in a negative direction, it was not large enough to have significance at the desired level. With regard to Total Group statistics, a mean gain in openness of 1.02 was noted with a resulting t-ratio of .84. This numerical value was also lacking in significance at the .05 level of confidence as were all other t-ratios computed in this portion of the investigation. Therefore, the null hypothesis which stated that no significant change in the openness of student teachers occurred during their student teaching experience, was accepted. It appeared that, while most of the student teachers did show a slight gain in openness during the semester, the increase was not large enough to be significant.

II. CHANGES IN OPENNESS OF STUDENT TEACHERS AND GRADE LEVEL OF STUDENT TEACHING EXPERIENCE

The purpose of this segment of Chapter IV was to study the mean changes in openness of student teachers during the student teaching experience in terms of the grade level of their student teaching assignment. In order to make this comparison, the mean of the difference between pre- and post-test scores was computed for each of the four basic groups, as well as the Total Group of Elementary Student Teachers and the Total Group of Secondary Student Teachers. These mean difference scores were then used to
calculate t-ratios, thus affording a test for significance.

Since the data used in this portion of the investigation were derived from uncorrelated groups, a different experimental design from that used in the previous section had to be employed. Garrett recommended the following formula as the one to be used when computing the significance of the difference between uncorrelated means:

\[
SE_D = \sqrt{\frac{\delta_1^2}{N_1} + \frac{\delta_2^2}{N_2}}
\]

(Standard error of the difference between uncorrelated means.)

After calculating the \(SE_D\), the t-ratios were computed by dividing the difference between the means by the \(SE_D\). Level of significance was determined by comparing the obtained t-ratios with those found in Table D of Garrett's book.

In Table III is shown the mean changes in openness of student teachers during the student teaching experience in terms of the grade level of their student teaching assignment. Comparisons were made between the On-Campus Elementary and the On-Campus Secondary Student Teachers, the Off-Campus Elementary and the Off-Campus Secondary Student Teachers, and the Total Group of Elementary and the Total Group of Secondary Student Teachers.

\[4\text{Ibid.}, \ p. \ 214. \quad 5\text{Ibid.}, \ p. \ 449.\]
### Table III

**Comparison of Mean Changes in Openness of Student Teachers in Terms of Grade Level of Student Teaching Experience**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Change Elementary Group</th>
<th>Mean Change Secondary Group</th>
<th>Group's t-Ratio</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Elementary Student Teachers (G1) vs. On-Campus Secondary Student Teachers (G2)</td>
<td>.83</td>
<td>2.13</td>
<td>.36</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Elementary Student Teachers (G3) vs. Off-Campus Secondary Student Teachers (G4)</td>
<td>-.17</td>
<td>1.47</td>
<td>.41</td>
<td>NS*</td>
</tr>
<tr>
<td>Total Group Elementary Student Teachers (G5) vs. Total Group Secondary Student Teachers (G6)</td>
<td>.11</td>
<td>1.89</td>
<td>.74</td>
<td>NS*</td>
</tr>
</tbody>
</table>

*Not significant at the .05 level of confidence.*
As the table indicates, both secondary level groups showed a greater increase in openness than did their elementary counterparts. However, the net difference in openness gain was not large enough in either instance to yield a significant t-ratio. The largest difference in mean change occurred in the total group category where the Total Group of Elementary Student Teachers showed a mean gain of .11 as opposed to a mean gain of 1.89 for the Total Group of Secondary Student Teachers. This resulted in a t-ratio of .74 which was still considerably short of the 1.97 t-ratio needed for significance at the .05 level of confidence.

Therefore, since significance was lacking in all of the above comparisons, the null hypothesis of no significant difference between changes in openness of student teachers as a result of the grade level of their student teaching assignment was accepted.

III. CHANGES IN OPENNESS OF STUDENT TEACHERS AND LOCATION OF STUDENT TEACHING ASSIGNMENT

In this portion of the study, an effort was made to examine the mean changes in openness of student teachers during the student teaching experience in terms of the location of their student teaching assignment. In order to facilitate this objective, the mean of the difference between pre- and post-test scores was computed for each of the four basic groups, as well as the Total Group of On-Campus Student
Teachers and the Total Group of Off-Campus Student Teachers. These mean difference scores were then used to calculate t-ratios which in turn were used in testing for significance.

Since the data incorporated in this part of the investigation were derived from uncorrelated groups, the same experimental design as was used in the previous section was employed again.

In Table IV is indicated the mean changes in openness of student teachers during the student teaching experience in terms of the location of their student teaching assignment. Comparisons were made between the On-Campus Elementary and the Off-Campus Elementary Student Teachers, the on-Campus Secondary and the Off-Campus Secondary Student Teachers and the Total Group of On-Campus and the Total Group of Off-Campus Student teachers.

As data presented in the table reveal, both on-campus student teacher groups showed a greater mean gain in openness than did their off-campus counterparts. However, the difference in mean change was not large enough in either case to result in a significant t-ratio. The largest difference in mean openness change occurred in the total group category where the Total Group of On-Campus Student Teachers showed a mean gain of 1.74 as opposed to a mean gain of .40 for the Total Group of Off-Campus Student Teachers. When these two numerical values were compared, a t-ratio of .56 resulted, which was still far short of the 1.97 t-ratio required for significance at the .05 level of confidence.
### TABLE IV

COMPARISON OF MEAN CHANGES IN OPENNESS OF STUDENT TEACHERS IN TERMS OF LOCATION OF STUDENT TEACHING ASSIGNMENT

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Change On-Campus Group</th>
<th>Mean Change Off-Campus Group</th>
<th>Group's t-Ratio</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Elementary Student Teachers (G1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-Campus Elementary Student Teachers (G3)</td>
<td>0.83</td>
<td>-0.17</td>
<td>0.29</td>
<td>NS*</td>
</tr>
<tr>
<td>On-Campus Secondary Student Teachers (G2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-Campus Secondary Student Teachers (G4)</td>
<td>2.13</td>
<td>1.47</td>
<td>0.16</td>
<td>NS*</td>
</tr>
<tr>
<td>Total Group On-Campus Student Teachers (G7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Group Off-Campus Student Teachers (G8)</td>
<td>1.74</td>
<td>0.40</td>
<td>56</td>
<td>NS*</td>
</tr>
</tbody>
</table>
As the statistical analysis clearly demonstrated, there were no significant differences at any level in this portion of the investigation. Consequently, the null hypothesis of no significant difference between changes in openness of student teachers as a result of the location of the student teaching assignment was accepted.

IV. CHANGES IN OPENNESS OF STUDENT TEACHERS AND OVERALL GRADE POINT AVERAGE

This section of Chapter IV was devoted to the investigation of the relationship between mean changes in openness of student teachers during the student teaching experience and their overall grade point average. In order to make the necessary comparisons, the mean of the difference between pre- and post-test openness scores was computed for each of the four basic groups as well as the Total Group of Student Teachers. In addition, the mean overall grade point average was calculated for each of the same populations. These statistical computations were then compared by calculating coefficients of correlation which in turn were tested for significance at the .05 level of confidence.

The technique employed in determining the desired relationships was the coefficient of correlation. The formula used in the computations was designed to calculate correlation coefficients by utilizing deviations taken from the actual means of two distributions. Garrett illustrated the formula as follows:
\[ r = \frac{\Sigma xy}{\sqrt{\Sigma x^2 \times \Sigma y^2}} \]

(Coefficient of correlation when deviations are taken from the means of the two distributions.)

In Table V is indicated the relationship between change in student teacher openness and overall grade point average. As was previously pointed out, the On-Campus Secondary Student Teacher group showed the largest gain in openness, an increase of 2.13, during its student teaching experience. The Total Group of Student Teachers revealed a net gain in openness of 1.02. In the area of overall grade point averages, both the On-Campus Elementary and the Off-Campus Elementary Student Teachers compiled 2.93 averages based on a 4.00 system of grading. This figure was higher than that of either of the secondary level groups and slightly above the grade point average of 2.88 tabulated by the Total Group of Student Teachers.

In reviewing the coefficients of correlation for the various groups, it was noted that all coefficients had negative values, indicating an inverse relationship between student teacher change in openness and overall grade point average. In other words, student teachers with higher grade point averages were less likely to make positive gains in openness than were student teachers with lower grade point averages. However, even the highest negative correlation,

\[ 6^{\text{Ibid.}, \text{ p. 139}}. \]
TABLE V

RELATIONSHIP OF MEAN CHANGE IN OPENNESS OF STUDENT TEACHERS TO OVERALL GRADE POINT AVERAGE

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Change in Openness</th>
<th>Mean Overall Grade Point Average</th>
<th>Correlation Coefficient</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Elementary Student Teachers (G1)</td>
<td>23</td>
<td>.83</td>
<td>2.93</td>
<td>-.27</td>
<td>NS*</td>
</tr>
<tr>
<td>On-Campus Secondary Student Teachers (G2)</td>
<td>55</td>
<td>2.13</td>
<td>2.89</td>
<td>-.02</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Elementary Student Teachers (G3)</td>
<td>60</td>
<td>-.17</td>
<td>2.93</td>
<td>-.09</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Secondary Student Teachers (G4)</td>
<td>32</td>
<td>1.47</td>
<td>2.76</td>
<td>-.06</td>
<td>NS*</td>
</tr>
<tr>
<td>Total Group Student Teachers (G9)</td>
<td>170</td>
<td>1.02</td>
<td>2.88</td>
<td>-.07</td>
<td>NS*</td>
</tr>
</tbody>
</table>

*Not significant at the .05 level of confidence.
a -.27 found in the On-Campus Elementary Student Teacher Group, failed to show significance at the .05 level of confidence when compared with the correlation coefficients found in Table 25 of Garrett's book.\footnote{Ibid., p. 201.} Therefore, with no significance discernible in any of the five groups, the null hypothesis of no relationship between mean change in student teacher openness and their overall grade point average was accepted.

V. STUDENT TEACHER OPENNESS AND JUDGED STUDENT TEACHER EFFECTIVENESS

The final portion of Chapter IV was concerned with an investigation of the relationship between student teachers' openness at the completion of their student teaching experience and their judged student teaching effectiveness. In order to make the required comparisons, the post-test openness score was utilized as the measure of student teacher openness upon the completion of student teaching. The other variable, judged student teaching effectiveness, was represented by the numerical value of the letter grade earned in student teaching. The relationship between the variables was determined by calculating coefficients of correlation and testing for significance at the .05 level of confidence. Since the experimental design was the same as that employed in the preceding section of this study, the
identical statistical technique was used.

In Table VI is illustrated in tabular form the relationship between student teacher openness and judged student teaching effectiveness. As indicated, the On-Campus Elementary Student Teachers were apparently the most "open" group at the end of its student teaching experience, compiling a mean openness score on the College Student Problems Q-Sort of 19.74. However, the group also earned some of the lower grades awarded in student teaching and consequently showed a negative correlation of -.11. The lowest post-test openness score, 18.22, was recorded by the Off-Campus Secondary Student Teachers who at the same time earned some of the highest student teaching grades with a mean of 3.63 on a 4.00 scale. This relationship resulted in a correlation coefficient of .11. It was noted that both elementary groups were slightly higher in openness scores upon completion of student teaching than were their secondary counterparts. Also, both off-campus groups earned higher average grades in student teaching than did those students assigned to on-campus locations.

While none of the relationships showed significant results, the Off-Campus Elementary Student Teacher group was very close with a correlation coefficient of .25 and 58 degrees of freedom. Either 60 degrees of freedom or a coefficient of .255 would have provided significance at the .05 level of confidence when compared with the correlation
TABLE VI
RELATIONSHIP OF POST-TEST OPENNESS SCORE OF STUDENT TEACHERS TO JUDGED STUDENT TEACHING EFFECTIVENESS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Post-Test Openness Score</th>
<th>Mean Student Teaching Grade Earned</th>
<th>Correlation Coefficient</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus Elementary Student Teachers (G1)</td>
<td>23</td>
<td>19.74</td>
<td>3.57</td>
<td>-.11</td>
<td>NS*</td>
</tr>
<tr>
<td>On-Campus Secondary Student Teachers (G2)</td>
<td>55</td>
<td>18.44</td>
<td>3.55</td>
<td>-.09</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Elementary Student Teachers (G3)</td>
<td>60</td>
<td>19.00</td>
<td>3.63</td>
<td>.25</td>
<td>NS*</td>
</tr>
<tr>
<td>Off-Campus Secondary Student Teachers (G4)</td>
<td>32</td>
<td>18.22</td>
<td>3.63</td>
<td>.30</td>
<td>NS*</td>
</tr>
<tr>
<td>Total Group</td>
<td>170</td>
<td>18.77</td>
<td>3.59</td>
<td>.11</td>
<td>NS*</td>
</tr>
</tbody>
</table>

*Not significant at the .05 level of confidence.
coefficients found in Table 25 of Garrett's book. However, since no significant relationships were found, the null hypothesis of no relationship between student teacher openness and judged student teaching effectiveness was accepted.

SUMMARY

The statistical treatment of the data indicated the following results:

1. There was no significant change in the openness of student teachers during their student teaching experience. The change that did occur was in a positive direction.

2. There was no significant difference between changes in openness of student teachers as a result of the grade level of their student teaching experience.

3. There was no significant difference between changes in openness of student teachers as a result of the location of their student teaching assignment.

4. There was no significant relationship between mean change in openness of student teachers and their overall grade point average.

5. There was no significant relationship between openness in student teachers and their judged student teaching effectiveness.

8Ibid.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate changes in the psychological concept of openness of student teachers during their student teaching experience. More specifically, this investigation sought to determine the effect of grade level and location of the student teaching assignment on changes in openness of student teachers. In addition, this study was concerned with the relationship between mean changes in openness of student teachers and their overall grade point average as well as the correlation between openness and judged student teaching effectiveness. In Chapter V is presented a summary of this study along with the conclusions reached and the recommendations made for further research.

I. SUMMARY

Educators have long been concerned with the problem of identifying the nature of good teaching and the subsequent planning of effective teacher education programs. While a variety of approaches to this problem have previously failed to produce adequate solutions, a new psychological concept has emerged within the past two decades which could
possibly yield significant results. This novel idea emanated from the principles of a new force in American psychology, a group generally known as perceptual psychologists. Their basic premise is that all behavior of a person is the direct result of his field of perception at the moment of his behaving. In order to adequately perceive and properly behave, an individual must be endowed with an "open" personality. Therefore, the primary goal of the perceptual psychologist in education is to develop qualities of "openness" in prospective teachers, a quality which Rokeach defined as lack of rigidity in encountering and evaluating a unique or novel situation. A growing number of educators agree with the proposition that the teacher's personality, perception, attitude, and self-concept greatly affect successful teaching.

Research pertaining to the prediction of teaching success is extensive. A large part of the published material deals with the relationship of personality factors to success in student teaching, presumably upon the assumption that effectiveness in student teaching is related to later success in the teaching profession. The results of these investigations lend support to the idea that personality variables are important determinants of teaching success.

At the time of this writing, only a limited number of studies had been conducted relevant to the relationship of openness to success in teaching. These investigations presented some indication of the importance of openness to
effective teaching. From the number of qualitative articles appearing in the literature regarding the relationship, it seemed evident that the concept of openness was considered a highly desirable characteristic of the successful teacher.

Within the framework of studies specifically related to the effect of the student teaching experience on openness in prospective teachers, research has been restricted to a limited number of investigations. The efforts that have been made do not lend themselves to a consensus since they are in direct contradiction to each other. One study revealed that a significant negative change occurred in the openness of both elementary and secondary student teachers during their student teaching experience while another found change in a positive direction, although it was not significant.

In view of these facts, the primary purpose of this study was to investigate the changes in openness that occurred in student teachers in the course of their student teaching experience at Louisiana State University, Baton Rouge, during the fall semester, 1967-1968. As a test for openness, Freeze's College Student Problems Q-Sort was utilized. The study was designed to test the following null hypotheses:

1. There is no significant change in the openness of student teachers during their student teaching experience.

2. There is no significant difference between changes in openness that may occur in student teachers as a
result of the level of their student teaching assignment.

3. There is no significant difference between changes in openness that may occur in student teachers as a result of the location of their student teaching assignment.

4. There is no significant relationship between changes in openness that may occur in student teachers during the student teaching experience and the overall grade point average of the student teachers.

5. There is no significant relationship between the student teachers' openness as measured by the post-test administration of the College Student Problems Q-Sort and the judged teaching effectiveness of the student teachers as measured by the grade earned in student teaching.

The variable of openness was determined in terms of student teacher responses to the College Student Problems Q-Sort. Each subject was given a set of 84 cards with each bearing a descriptive statement or problem. The participant was then asked to sort or arrange the statements in a quasi-normal distribution extending from the "least pressing" on one end of the scale to "most pressing" on the other end. When graded, there was a potential range in openness score of -68 to +68.

The population of 170 student teachers involved in this study was drawn from the total population of approximately 240 student teachers enrolled in student teaching during the fall semester, 1967-1968. Subjects participated on a voluntary basis with nominal encouragement provided by
the Dean of the College of Education and this investigator.

Since this study was concerned with making certain comparisons between elementary and secondary student teachers, the participants were divided into four major groups on the basis of the grade level and location of their student teaching assignment. Five additional groups were established, using combinations of the original four. These groups were as follows:

Group One (G1) - On-Campus Elementary Student Teachers
Group Two (G2) - On-Campus Secondary Student Teachers
Group Three (G3) - Off-Campus Elementary Student Teachers
Group Four (G4) - Off-Campus Secondary Student Teachers
Group Five (G5) - Total Group of Elementary Student Teachers
Group Six (G6) - Total Group of Secondary Student Teachers
Group Seven (G7) - Total Group of On-Campus Student Teachers
Group Eight (G8) - Total Group of Off-Campus Student Teachers
Group Nine (G9) - Total Group of Student Teachers.

The purposes of this study dictated the use of two different experimental designs. In analyzing the changes that occurred in openness of student teachers, the "t-test" was considered the appropriate measure and the difference in group means was computed, testing for significance at the .05 level of confidence. The technique used in determining the relationships of openness in student teachers to overall grade point average and judged student teaching effectiveness
was the coefficient of correlation. Again, the test for significance was made at the .05 level of confidence.

Analysis of the data indicated that while most of the student teacher groups witnessed a slight gain in openness during the student teaching experience, the increase was not large enough to be termed significant. Elementary student teachers, at the on-campus and off-campus locations, earned higher openness scores on both the pre- and post-test than did their secondary level counterparts. Conversely, the secondary student teachers showed a higher mean gain in openness during the experiment than did their elementary level contemporaries. However, the differences were not large enough in either instance to be called significant. Apparently, the grade level and location of the student teaching assignment had little effect on changes in openness of student teachers.

In analyzing the data concerned with the relationship of mean changes in openness to the student's overall grade point average, negative correlations were found in all four basic groups. While these coefficients were not large enough to meet the test for significance, there was a slight indication that students with higher overall grade point averages made less progress in developing openness qualities during student teaching than did their compatriots with lower grade point averages.

An analysis of the data concerned with the relationship of student teacher openness to judged student teaching
effectiveness revealed small negative correlations for both on-campus groups and positive correlations for the off-campus groups. Although these statistics were not significant at the .05 level of confidence, they seemed to indicate that the "more open" on-campus student teachers received lower student teaching grades than did the "less open" on-campus student teachers while the reverse of this was true with the off-campus student teachers.

II. CONCLUSIONS

From a consideration of the data presented within the limitations of this study, the following conclusions appeared to be warranted:

1. There was no significant change in the openness of student teachers during their student teaching experience. However, the change that did occur was generally in a positive direction.

2. There was no significant difference between changes in openness of student teachers as a result of the grade level of their student teaching experience.

3. There was no significant difference between changes in openness of student teachers as a result of the location of their student teaching assignment.

4. There was no significant relationship between mean change in openness of student teachers and their overall grade point average. It was noted that the relationship that did exist was negative in all four basic groups.
5. There was no significant relationship between openness of student teachers and their judged student teaching effectiveness. It was noted that the relationship that did exist was negative in the on-campus groups and positive in the off-campus groups.

6. The primary implication of this study was that the experience of student teaching apparently had little measurable effect upon the concept of openness in student teachers.

III. RECOMMENDATIONS

Recognizing that this study contained certain limitations with regard to population, instruments, time, variables, and other factors, the following recommendations for further research appeared valid:

1. It is recommended that a follow-up study to this investigation be made, noting the changes that occur in the openness of these student teachers as they complete their first year of actual teaching. Another feature of such a study would be to relate the changes in teacher openness to the openness of the school principal and supervisor.

2. It is recommended that a similar study be conducted incorporating not only the student teacher population at Louisiana State University, Baton Rouge, but other colleges and universities as well.

3. It is recommended that a study be conducted in which the changes in student teacher openness would be
related to the openness qualities of their cooperating teachers and college supervisors.

4. It is recommended that a study be conducted in which a new instrument for measuring student teacher openness would be constructed and validated.

5. It is recommended that a longitudinal investigation be conducted in which the openness changes of teacher trainees would be traced from the time of their enrollment in the College of Education through their student teaching experience.

6. It is recommended that a controlled experiment be conducted in which the investigator would determine the effect of micro-teaching and videotape observation on openness changes in prospective teachers.
BIBLIOGRAPHY
BIBLIOGRAPHY

BOOKS


PERIODICALS


Barr, A. S., and Lester M. Emans. "What Qualities Are Prerequisite to Success in Teaching?" Nations Schools, 6:60-64, September, 1930.


UNPUBLISHED MATERIALS


APPENDIX
APPENDIX A

To All Fall Semester Student Teachers:

To fulfill a research project being conducted within the College of Education, all students engaged in student teaching during the fall semester, 1967-68, are requested to complete a brief "problems" test during the registration period. Time required will be approximately one hour.

This test has been scheduled for administration at four different times. You are requested to select the one session most convenient for you. The testing periods and location are as follows:

- Tuesday, September 12 - 9:00 a.m. - Peabody 153
- Tuesday, September 12 - 2:00 p.m. - Peabody 153
- Wednesday, September 13 - 9:00 a.m. - Peabody 153
- Wednesday, September 13 - 2:00 p.m. - Peabody 153

Mr. C. R. Kinard is in charge of this project and will supply you with any additional information needed. Thank you for your cooperation and best wishes for a successful student teaching experience.

Sincerely,

/s/ L. L. Fulmer
L. L. Fulmer, Dean
College of Education

/s/ C. R. Kinard
C. R. Kinard
APPENDIX B

ITEMS FOR COLLEGE STUDENT PROBLEMS

1. Finding time to do the things I would like to do in light of the amount of work assigned to me (CSP)

2. College professors who are inefficient and who do not care whether students learn or not (CSP)

3. My lack of self-confidence (CSP)

4. My lack of interest in my courses makes it difficult to study (CSP)

5. I am poorly organized and have difficulty in studying (CSP)

6. Poor planning by college administrators who allow too many students in the same class (CSP)

7. Not knowing how to adjust my behavior to please the professor (CSP)

8. Not having anyone with whom I can confide my innermost feelings about things that concern me (CSP)

9. The assignments given me in class are inadequate to meet my intellectual needs (CSP)

10. Receiving little or no cooperation from other students in organizational projects (CSP)

11. Too much nagging and pressure from parents to make good grades (CSP)

12. Having to take courses in college that offer no challenge or are outside my major field (CSP)

13. Inability to live by the moral standards I had prior to coming to college (CSP)

14. Professors who do not make subject matter interesting and meaningful for me (CSP)
15. Coping with social competition on the campus (CSP)
16. Not being asked for a date (girl)  
   Being turned down when asking for a date (boy) (CSP)
17. Will the subject-matter I am studying be of value to me when I finish college (CSP)
18. So many students emphasize good grades rather than learning (CSP)
19. Emphasis that is placed on fraternities, sororities, and social life (CSP)
20. Lack of a uniform grading system for evaluating the progress of students (CSP)
21. Deciding what I will be and do when I finish college (CSP)
22. Assignments have little meaning because they are so often busy work forced on me (CSP)
23. Learning how to express my real views in class without having my grade lowered for it (CSP)
24. Helping my parents understand that it is not as easy to make high marks in college as in high school (CSP)
25. Being a number to my professor instead of an individual (CSP)
26. Professors who try to flunk out students and who tell the class this is their purpose instead of judging me on the basis of my achievement (CSP)
27. Inability to concentrate, read rapidly, and use the library effectively so I can do the work required of me (CSP)
28. Being required to go to class even when I could learn more if I were to study on my own (CSP)
29. Being required to memorize minute details in order to pass exams which makes it more difficult to grasp the larger ideas of the class (CSP)
30. Feeling guilty about the way I trust my friends (CSP)
31. Planning my time so that I do not get so involved in extra-curricular activities that I do not have time to study as much as I believe I should (CSP)
32. Being satisfied with my progress when I know I am capable of doing better work (CSP)

33. Not being able to get off by myself so that I can think and learn (CSP)

34. Learning how to express my feelings and opinions in a positive and helpful way in classes where professors disturb me (CSP)

35. Being unable to be myself and feeling I have to conform (CSP)

36. Professors who will not let me take responsibility for planning my college work (CSP)

37. Learning better ways to study and to distribute my time more wisely to achieve the things important to me (CSP)

38. Learning what is most important for me to do, to be, or to get from life (CSP)

39. Feeling afraid to speak up in class (CSP)

40. Learning to distinguish what is really important and what is "busy work" in a subject (CSP)

41. Learning better ways of evaluating my own work rather than merely accepting the evaluation of the professor (CSP)

42. Doing a better job of organizing my school work so as to have more time for a balanced life (CSP)

43. Learning how to know my professors better (CSP)

44. Fulfilling the expectations of my parents and trying to fulfill the expectations of my peer group at the same time (CSP)

45. Learning how to be friendly with students and professors so that they will like me and I, in turn, can profit from their experience (CSP)

46. Learning how to be responsible for my behavior (CSP)

47. Learning how to apply the knowledge I have learned (CSP)

48. Obeying the policies and regulations of the college (CSP)
49. Learning how to transfer what is learned in one course to another (CSP)

50. Learning to accept autocratic teaching and profiting as much as I can from it although I prefer the democratic approach (CSP)

51. Avoiding the easy course of action which may not do me the best good in the long run (CSP)

52. Growing in my desire to learn things because they are important rather than to pass a test (CSP)

53. Learning better ways of avoiding activities that are not central to my purposes in getting an education (CSP)

54. Finding better ways of gaining more from my courses than only that which I am required to gain (CSP)

55. Keeping away from the cheating which I see around me (CSP)

56. Wanting students and faculty to think well of me (CSP)

57. Finding better ways for me to express my feelings to my boy friend or girl friend (CSP)

58. Being able to understand the importance of what I am becoming for the future instead of being content with understanding only the present or past (CSP)

59. Learning how to balance my interest in the opposite sex and my need to study (CSP)

60. Over-crowded conditions of the college living quarters (CSP)

61. Avoiding students who take up my time with their problems (CSP)

62. Learning to accept teachers and students as they are (CSP)

63. Continuing to learn more about myself and what is important to me (CSP)

64. Trying to see myself as others see me (CSP)

65. Trying to be what important people think I should be (CSP)

66. Growing in my abilities to evaluate my needs (CSP)
67. Learning how to accept student and teacher reaction to me as a source of growth (CSP)
68. Learning better how to face the realities of college life (CSP)
69. Growing in my ability to find my own answers rather than merely accepting what my professors tell me (CSP)
70. Learning how to put forth the effort necessary to accomplish the things required of me (CSP)
71. Learning to use the ability and the talents I possess (CSP)
72. Learning better ways of expressing my individual needs and interest (CSP)
73. Helping my parents to understand that I also worry and have problems (CSP)
74. Inability to decide for myself what I should study in college (CSP)
75. Learning how to take sufficient time to reason out my problems (CSP)
76. Learning better ways of showing how much I really know when I take an exam (CSP)
77. Learning better ways of being helpful in patching up things between friends (CSP)
78. Increasing my ability to concentrate on important subjects that I am not interested in (CSP)
79. Getting my professors to teach me the things I should know (CSP)
80. Professors who criticize other schools or colleges on the campus (CSP)
81. Inability on the part of professors to solve my problems for me (CSP)
82. Lack of self-discipline among other college students (CSP)
83. Becoming more willing and able to see other people as they see themselves (CSP)
84. Feeling the professor sees me as a student who lacks the desire and the ability to succeed in college (CSP)
INSTRUCTIONS

COLLEGE STUDENT PROBLEMS Q-SORT

You have been given a package containing 84 slips. Each slip states a problem which may be of concern to you as a student teacher. All 84 problems have been suggested by other student teachers. We would like you to use these statements to describe the most pressing problems you experience as a college student and student teacher.

To describe the problems you experience as a student teacher the statements are sorted as indicated below.

<table>
<thead>
<tr>
<th>Least Pressing</th>
<th>Most Pressing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Number:</td>
<td>1 2 3 4 5 6 7 8 9 10 11</td>
</tr>
<tr>
<td>Number of cards:</td>
<td>1 2 6 11 14 16 14 11 6 2 1</td>
</tr>
</tbody>
</table>

You must place one and only one statement in category #11. This is the one problem which is most pressing for you. Category #10 will contain the two (and only two) next most pressing problems. Category #9 will contain the next six most pressing problems, etc.

The easiest way to make the sort is to begin by dividing the 84 statements into three piles—"most pressing," "least pressing," and a third group between these. The three piles may then be subdivided into the final eleven piles.

After you have completed the sort, please record your responses on the record sheet. You will notice that each problem has a number. (Ignore the CSP on each item. It means College Student Problem.) Note the category in which you placed the problem and opposite the problem number on the record write the appropriate category number.

Thank you for your cooperation.
Q Sort Recording Form

College Student Problems

Name____________________
Date____________________

Least Pressing

Category Numbers:
1  2  3  4  5  6  7  8  9  10  11  12

Most Pressing
### Q-SORT RECORD SHEET

**College Student Problems**

<table>
<thead>
<tr>
<th></th>
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<td>64</td>
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</tr>
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</tr>
<tr>
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Program: Score College Student Problems Q-sort
Program No.: COE13

Written by: Robert E. Bills,
College of Education,
University of Alabama

Purpose:

To score the College Student Problems Q-Sort developed by Freeze.

Rationale:

All 84 items of the 84-item college student problems Q-sort have been selected as either positive or negative items in regard to variables of attitudes (Negative vs. Positive), self or non-self, central or peripheral, past and present or future. If a positive item has been given a placement in categories 7 through 11, it adds one point to the positive score as well as the total score. A positive item placed in categories 1 through 5 subtracts one point. Similarly, negative items in categories 1 - 5 add one point and subtract one point if placed in categories 7 - 11. Any of the 84 items that are placed in category 6 are ignored in the scoring. Positive items include: 1, 21, 23, 24, 26, 29, 31, 32, 34, 37, 38, 40, 41, 42, 43, 45, 46, 47, 50, 51, 52, 53, 54, 57, 58, 59, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 75, 76, 77, 78, and 83. Negative items include: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 25, 27, 28, 30, 33, 35, 36, 39, 44, 48, 49, 55, 56, 60, 61, 65, 70, 74, 79, 80, 81, 82, and 84.

Data Cards:

Format for data cards and the distribution on which subject's descriptions are based are described in COE09.

Operation:

Program uses only the High Speed Reader and Printer. Place COE13 in the read hopper of the High Speed Reader with the one card loader first and without disturbing the order of the program cards. Then:

1. Put computer on One Instruction w/o Index Registers,
2. General Clear,
3. Select rC,
4. Alert Keyboard and Key in 72-0000-0004/1+,  
5. Select rA,  
6. Alert Keyboard and Key in 96-0000-0003+,  
7. Press Continuous and Run. If reader stops before  
   program is completely loaded because of an overloaded  
   stacker, remove cards from stacker, press General  
   Clear and Run, and program loading will continue.  

Remove C0E13 from the stacker and place data cards in  
the read hopper. (Program will continue to process cards as  
long as any remain in the hopper.) Then:  

1. Put computer on One Instruction w/o Index Registers,  
2. General Clear,  
3. Select rC,  
4. Alert Keyboard and Key in 0200+ (beginning of  
   Program),  
5. Press Next Address "c,"  
6. Press Continuous and Run.  

Print-Out:  

After each sort is processed there is one line of  
print produced. Column 1 contains the negative score for a  
sort, column 2 contains the positive score, and column 3  
contains the algebraic sum of Col. 1 and Col. 2. Any blank  
datum is a zero. Column 4 contains the identification  
number of the sort, the scores for which appear on this line.
**APPENDIX C**

**TABLE VII**

OPENNESS SCORES OF ON-CAMPUS ELEMENTARY STUDENT TEACHERS

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Mean 18.91 19.74 .83

Standard Deviation 15.51 14.18 14.07

*Student number 016 was dropped from student teaching.*
### TABLE VIII

**OPENNESS SCORES OF ON-CAMPUS SECONDARY STUDENT TEACHERS**

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Mean                         | 16.31          | 18.44          | 2.13                     |

Standard Deviation           | 10.72          | 12.66          | 15.19                    |

*Student number 073 was dropped from student teaching.
## TABLE IX

OPENNESS SCORES OF OFF-CAMPUS ELEMENTARY STUDENT TEACHERS

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Mean 19.17 19.00 - .17

Standard Deviation 9.22 14.64 14.41
### TABLE X

**OPENNESS SCORES OF OFF-CAMPUS SECONDARY STUDENT TEACHERS**

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**Mean**  
16.75  
18.22  
1.47

**Standard Deviation**  
12.59  
15.21  
20.01
VITA

Conrad Richard Kinard was born in El Dorado, Arkansas on August 9, 1930. Following a brief residence in Texas, he made his first appearance in Louisiana as an elementary student in the public schools of Webster Parish. Three years later his family moved to LaSalle Parish where he graduated from the Trout-Good Pine High School in the Spring of 1947. The Fall semester of that year found him enrolled at Louisiana Polytechnic Institute where graduation was postponed until 1955 by a tour of duty with the United States Air Force.

The next two years were spent as teacher and coach at Jena High School followed by a one-year leave of absence for graduate study. He received his Master of Education degree from Louisiana State University in 1958 and was employed by the Winn Parish School Board as principal of Sikes High School. In 1965, he returned to Louisiana State University and began working toward the doctorate degree.

In August, 1955, he married the former Dorothy Helen Scarborough of Ruston, Louisiana. They are the parents of two daughters, Kelly and Kris.
EXAMINATION AND THESIS REPORT

Candidate: Conrad Richard Kinard
Major Field: Education
Title of Thesis: A Study of Changes in "Openness" in Pre-Service Teachers During the Student Teaching Experience

Approved:

[Signatures]
Major Professor and Chairman
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:
March 29, 1968