

AN EXAMINATION OF THE EFFECTS OF STUDENT TEACHING
ON THE ATTITUDES TOWARD TEACHING READING
IN CONTENT AREA CLASSROOMS

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF EDUCATION

BY

MARILYN JOYCE HURD, B.S.

DENTON, TEXAS

AUGUST, 1981

Thesis
71981
H961e
c.2

THE UNIVERSITY LIBRARY

Dedication

I dedicate this thesis to my beloved husband, Dr. J. Clayton Hurd, whose words and quiet manner of encouragement continued to help in the completion of the task. The volume is also dedicated to my children, Mary and Joseph, whose love helped me to continue in my quest for higher education.

Acknowledgments

Without the help of the following individuals and many more who encouraged me in my course of study, I would not have realized the fulfillment of "a dream come true;" Miss Jackie Carden for sparking my interest in reading and for encouraging me to continue when the way was difficult; Dr. Kathleen Jongsma and the committee for constant encouragement to give my very best; and Mrs. Barbara Miller for computing the data for the paper.

TABLE OF CONTENTS

	PAGE
LISTS OF TABLES	vi
Chapter	
I. Introduction	1
Background of the Problem	1
Statement of Problem	6
Statement of Purpose	6
Hypotheses	7
Significance of the Study	9
Assumptions	11
Limitations	11
Definition of Terms	12
Summary	14
II. Review of Related Literature	15
Attitudes by Content Area Teachers	15
Variables Affecting Attitudes	20
Attitudes of Student Teachers	23
Variables Affecting Attitude Changes	28
Attitudes toward Reading	39
Summary.	41
III. Procedure	42
Research Questions	41

CHAPTER	PAGE
Null Hypotheses	43
The Setting	45
The Population	46
The Instrumentation	48
Data Collection Procedure	51
Summary	58
IV. Results	60
The Computer	60
Variables of the Study	62
Summary	68
V. Summary, Findings, Implications, and Recommendations	69
Summary	69
Findings of Data	72
Implications	78
Recommendations	82
Appendices	86
A. Letter to the Directors of Student Teaching	87
B. Follow-up Letter to the Directors of Student Teaching	88
C. Letter to the School District	89

Appendices	PAGE
D. School District Consent Form	90
E. Follow-up Letter to the School District	91
F. Letter to Student Teacher Candidates	92
G. Student Teaching Information Form	93
H. Letter to Cooperating Teacher	94
I. Cooperating Teacher Information Form	95
J. A Scale to Measure Attitudes toward Teaching Reading in Content Classrooms	96
K. Participant Consent Form	97
L. Follow-up Letter to Student Teacher	98
M. Follow-up Letter to Cooperating Teacher	99
N. Posttest Letter to Participants	100
O. Follow-up Letter to Participants	101
P. Interpretation of Attitude Scores for the Instrument "A Scale to Measure Attitudes toward Teaching Reading in Content Classrooms.	102
Q. Pre and Posttest Scores of Attitude toward Teaching Reading in the Content Classroom of Cooperating Teachers and Student Teachers	103
References	107

LIST OF TABLES

Table	Page
1. Summary Statistics for Pre and Post Attitude Testing for Student Teachers and Cooperating Teachers	61
2. A Comparison of Pearson r and z_r of Paired Student and Cooperating Teachers on the Vaughan Attitude Scale of Teaching Reading in the Content Area	6

CHAPTER I

Introduction

Background of the Problem

Some students leaving high school are having difficulty in reading (Abartis & Collins, 1980). On the community college level, Craik and Martin (1980) report that students have difficulty in comprehending their reading assignments. Abartis and Collins (1980) report that students entering Southern Illinois University at Carbondale "needed instruction in reading and writing skills before they could successfully complete their college work" (p. 408).

In order to alleviate such reading difficulties among high school students, federally funded reading programs were established in the 1960's. However, many of these programs have not been carried on because of loss of funding and failure of special reading programs to correct the difficulty which the students have in trying to read "the materials required of them throughout their school years" (Herber, 1978, p. 1).

If the students cannot transfer reading skills learned in regular or special reading classes to content area classrooms, they need to be taught these skills in reading in the content area classrooms. These skills

should guide the students to a better understanding of the printed material they are required to read in the content field. There has been much said about the content area teacher being a teacher of reading (Herber, 1978; Thelen, 1976; Robinson, 1975). Robinson (1975) states that the responsibility of teaching reading in the content area is not the responsibility of teaching reading as a subject, but rather, of leading the students to understand the author's message. The responsibilities involved in content area reading "are to help students develop skills necessary to the learning and application of . . . concepts" (Thelen, 1976, p. 1). Herber (1978) continues to emphasize the content area teachers' responsibility by saying that the major responsibility lies in content teachers teaching their curriculum. The content area teachers must teach content and they must teach process. In other words, they are involved in teaching functional reading.

In developing theories about teaching reading in the content classroom, Herber (1978) has established certain criteria which he considers basic. He states

though not considered 'reading specialists,' subject area teachers can provide reading instruction as a part of their curriculum without jeopardizing the teaching of their

subject-area content. (p.i)

Many content area teachers have rejected this premise, and they contend that teaching reading is the responsibility of the elementary teacher (Jackson, 1979; Green, 1978). In Green's study (1978), the secondary teachers who were surveyed stated that they did not see it as their duty to teach reading in the content area. They felt that the elementary teacher had that responsibility. If any teacher on the secondary level had the responsibility of teaching the students reading, it was the duty of the language arts teachers.

Many secondary teachers, however, are recognizing that they can and do teach reading in the content area. In a recent study by Jackson (1979), it was reported that "nearly three-quarters of the respondents felt that content area teachers could be reading teachers, more than two-thirds felt they were reading teachers, and many were willing to take courses in reading for improvement in their teaching" (p. 232). If Jackson's study indicates a positive trend and content area teachers are showing a more positive attitude toward teaching reading in the content classroom, this attitude might influence the student teachers who come to these teachers for daily training in teaching techniques.

Cooperating teachers are not the only variable influencing the attitudes of the student teachers during their student teaching experience. Land (1972) found that sex of student teachers made a difference: female students had a statistically significant positive attitude change that was greater than the change of the male students. Therefore, the sex of the student teachers may affect the attitude changes which take place during student teaching.

Another factor which may influence attitude changes during the student teaching experience is the location of the school in which the students are placed for student teaching. Is the school located in an urban or a suburban setting? In a survey done by Bitner (1975), inner-city and suburban student teaching experiences were studied. Bitner found in a follow-up study of first-year teachers who student taught in the suburban schools that they were more optimistic, were generally better adjusted, and had better mental health than those who taught in the inner-city schools.

There have been conflicting studies dealing with the influence of college reading courses on student teacher attitudes toward teaching reading in the content classroom. Evans (1978) noted in a survey of secondary teachers that there was no significant difference in

attitudes of those who had training in reading and those who had not. On the other hand, Hargrove (1974) stated that courses and inservice training appeared to be positive factors in influencing favorable attitudes toward teaching reading in the content area. Therefore, the influence of college reading courses on student attitudes is uncertain.

Hargrove (1974) also reported another factor which may influence the students' attitude, that is, the content area where student teaching was completed. She noted that science teachers showed positive attitudes toward teaching reading in the content classroom. Evans (1978) found that English teachers had a more positive attitude toward teaching reading in the content classroom than did other content area teachers.

Field experiences may also have some influence upon student teacher attitude changes. Folkert (1978) conducted a study in which he compared early field experiences and student experiences at the secondary level. He found that students with prior in-service experiences rated significantly higher in their performances during their student teaching. However, in a study conducted by Hargrove (1974), it was found that previous teaching experiences appeared to have little influence on student teaching attitudes.

The age of the student teacher may or may not be a significant factor in any change of attitude that is found after the student teaching experience. Dewald (1970) stated that age, marital status, and number of children in a classroom did not significantly influence a change in attitude of the student teacher during the student teaching experience.

Most studies indicate that some type of attitude change does occur during the student teaching experience (Price, 1971; Sughrue, 1977; Terwilliger; 1968; Castek, 1970). The importance of the student teaching experience upon the student preparing to teach is recognized. It has been reported in these studies that the student teachers' attitudes have changed in such areas as discipline, pupil-teacher relationships, classroom control, and teaching as a profession (Castek, 1970; Holl, 1967; McEwin, 1968).

Statement of Problem

The problem to be explored in this study was what influence does the student teaching experience have on the student teachers' attitudes toward teaching reading in the content area classroom.

Statement of Purpose

The first purpose of this study was to determine if the attitudes of student teachers toward teaching reading

in the content area classroom change during the student teaching experience. The second purpose was to identify which of the following factors relate to the attitude change during the student teaching experience: sex of the student teacher, location of student teaching experience, number of courses taken in reading, the content area where student teaching took place, age of the student teacher, the student teacher's previous experiences with children, and the cooperating teachers' attitudes toward teaching reading in the content area.

Hypotheses

The following null hypotheses were tested at the .05 level of significance:

1. There will be no significant difference in the attitude toward teaching reading in the content classroom of the student teachers before they begin their student teaching experiences and after they have completed their student teaching experiences.
2. There will be no significant difference in the attitude toward teaching reading in the content area classroom between male student teachers and female student teachers after they have completed their student teaching experiences.

3. There will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers placed in an urban classroom and student teachers placed in a suburban classroom after they have completed their student teaching experiences.
4. There will be no significant difference in the attitude toward teaching reading in the content classroom between the student teachers who have had at least one course in reading and the student teachers who have had no courses in reading after they have completed their student teaching experiences.
5. There will be no significant difference in the attitude toward teaching reading in the content area classroom among student teachers who are assigned to language arts classrooms and student teachers who are assigned to other disciplines of study.
6. There will be no significant difference in the attitude toward teaching reading in the content classroom between the student teachers who have had less than a year of previous experiences with children and the student teachers who

had more than one year of previous experiences with children.

7. There will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers who are under 25 years of age and the student teachers who are 25 years of age and over.
8. There will be no significant difference in the relationship between the attitudes toward teaching reading in the content area classroom of the student and cooperating teachers before and after the student teaching experience.

Significance of the Study

Herber (in Herber & Sanders, 1969) states that the content area teachers have two major concerns. They must teach a certain amount of information and they must teach the process through which the information is acquired. In directing the students in the process, the content area teachers are using techniques which help their students understand the information. Knowing that helping their students to understand the information presented in a content area classroom is a part of the responsibility of the content area classroom teacher, some content teachers have developed a more positive

attitude toward teaching reading in the classroom (O'Rourke, 1980; Jackson, 1979).

The cooperating teachers' positive attitudes toward teaching reading in the content classroom might result in the student teachers' attitude toward teaching reading in the content classroom becoming more positive. Conversely, the cooperating teachers' negative attitude toward teaching reading in the content classroom might result in the student teachers' attitude toward teaching reading in the content classroom becoming negative. In order to develop a positive attitude toward teaching reading in the content area classroom, planners of student teaching programs should consider the attitudes of their cooperating teachers toward teaching reading in the content classroom. The attitude of the cooperating teacher is one factor to be considered in the placement of student teachers.

Other factors which influence the student teachers' attitudes toward teaching reading might be identified early in the teacher education program and steps might be taken to help the students develop positive attitudes toward teaching reading in the content area before they enter their student teaching experiences. The steps could include revamping the teacher education program to include reading courses on the secondary level. The program could be planned to include more experiences with

children before the actual student teaching experiences. Results from the study could be considered by committees who determine courses necessary for teacher certification.

Assumptions

1. The instrument developed by Joseph L. Vaughan, Jr. (1977) was a valid instrument based on three aspects of validity: convergent validity, sensitivity to treatment, and discriminant validity.
2. The participants' responses reflected their ideas about teaching reading in the content area classroom.
3. Answers given reflected an honest self-perception of how reading should be taught in the content area classroom.
4. Answers of the classroom teachers were congruous with their teaching practices.

Limitations

1. Students were selected from area colleges and universities in a metropolitan setting. Any generalizations were limited to students in the metropolitan area.
2. The instrument sampled only a few ideas about teaching reading in the content area classroom. Generalizations were limited to those ideas.

3. The cooperating teachers' attitudes toward teaching reading in the content area were limited to the assessment of the responses on the instrument. No assessment of their performances in the classroom was made.
4. The sampling was taken during the fall semester. Samplings taken during the spring semester might yield different data because the progress the pupil in the public school made during the year has to be considered.
5. Only one survey was made.
6. The study included public schools only.

Definition of Terms

Definitions utilized in the investigation were:

1. Student teachers

University or college students who have been approved by their college or university to enter the classroom of a public school for the purpose of an extended day-to-day experience of supervised teaching.

2. Student teaching

" . . . the period of guided teaching when the student takes increasing responsibility for the work with a given group of learners over a

period of consecutive weeks" (Statemeyer & Lindsey, 1958, p. 38).

3. Content area

Various disciplines taught in the secondary school such as English, social studies, science, and math.

4. Cooperating/supervising teacher

" . . . the teacher who is designated by the college or university as having the primary responsibility for guiding the student teacher in his/her student teaching experiences" (McGuire, Meyer, & Durrance, 1959, p. ix).

5. Urban schools

Any school district located within a city of over 300,000 population.

6. Suburban schools

Any school district located within commuting distance of a city of over 300,000 population.

7. Secondary school

Schools housing grade levels 7-12 inclusively and grade six when it is not included in the elementary structure of a particular school system.

Summary

This section of the thesis established the problem of identifying attitude changes toward reading in the content area classroom of the student teachers after they have completed their student teaching experiences. An instrument for collecting the data was identified. Several hypotheses were formulated and limitations and assumptions were made concerning the study.

CHAPTER II

Review of Related Literature

In this section, a discussion of selected literature will be made concerning the attitudes toward reading that are held by teachers in the content areas. Variables which affect the attitudes will be considered. A focus will be made on student teacher attitudes before and after the student teaching experience. Variables which may influence changes in attitude as a result of student teaching will be discussed.

Attitudes by Content Area Teachers

Secondary pupils are bombarded from every direction with written materials in their content areas. These written materials are a source of information to promote learning. Pupils gain their information from the materials through the process called reading. Robinson emphasized that "the act of reading, if engaged in purposefully by the secondary school student, is an attempt to understand an author's message" (1975, p.2). Yet among content area teachers there is great divergency of opinion concerning the importance of teaching reading in the content area (Herber, 1970; Jackson, 1979; Green, 1978).

Some teachers feel that their responsibility ends when they have "covered" the subject (Herber, 1970). Others' attitudes indicate that it is the responsibility of the elementary teachers to teach reading (Jackson, 1979; Green, 1978). Another group of teachers do see themselves as incorporating reading skills within their content areas in order that their students could gain information from written materials (Jackson, 1979; McCullough, 1976). By looking at these examples, one can see a divergence of attitudes expressed by teachers.

Negative Attitudes. A negative attitude expressed by teachers toward teaching reading in the content area was shown in a study done by Jackson, Stallard, and Steinruch (Jackson, 1979). Three hundred eighty-seven high school teachers in southern Illinois were surveyed. Of these teachers, 35% had "negative feelings about being responsible for teaching reading as part of their lessons" (Jackson, 1979, p. 229). Of the 387 teachers only 15% made any effort toward teaching reading in their content area classroom.

Secondary teachers have also stated that it was not their duty to teach reading but the responsibility was that of the elementary teachers (Green, 1978). Their further consensus of opinion was that if any teacher on the secondary level was responsible for reading

instruction, the English teacher was the responsible person. These two negative attitudes surfaced in a study conducted by Green (1978) as he sent 20 questionnaires to 50 schools in northern Alabama. Jackson (1979) stated that this attitude found by Green may have come, in part, from the reading specialists who emphasize that teaching reading is done in the elementary school.

In addition to the emphasis of the reading specialist on teaching reading in the elementary level, another reason for negative attitudes may come from the misunderstanding of the role of the secondary teachers in teaching reading (Herber, 1978; Burmeister, 1978; Robinson, 1975). "Content area teachers are not expected to teach reading skills in isolation, but they will find that learning is facilitated if they teach those skills which are necessary for understanding their materials" (Burmeister, 1978, p. xii). Robinson (1975) underscores the idea of the interweaving of reading skills and content area by saying that "reading and study are consciously or unconsciously considered to be a part of the learning of a discipline, and the instructor finds it difficult or impossible to separate content from the learning process" (p. 3).

Herber goes one step further by suggesting that "the curriculum content in each subject area should be the

organizing element for the reading instruction" (p. 4). By not understanding these basic ideas of teaching reading in the content area, the subject-matter specialists do not understand their role in teaching reading in the content area.

Math teachers were one group who was found to purport these negative attitudes toward teaching reading in the content area (Usova, 1978). Two hundred fifty-six secondary districts in the state of Pennsylvania were randomly selected for participation in Usova's study. Respondents to a 20-item Likert scale, developed by the author, were selected according to subject area by their principals. There were significant differences ($p < .05$) in attitude toward reading instruction among secondary English, science, history, and mathematics teachers. Mathematics teachers ranked lowest of all areas.

Positive Attitudes. Some secondary teachers' attitudes toward reading are changing. Jackson (1979) sent a questionnaire to 150 junior and senior high teachers in four states to find out how content teachers felt about teaching reading. Eighty-four were returned. Slightly more than half of the respondents felt that they were not qualified to teach reading skills needed in content areas. Nevertheless, nearly three-fourths of those surveyed felt that they could be reading teachers. Two-thirds

considered themselves reading teachers while four-fifths felt that all content area teachers needed some instruction in teaching reading.

Content area teachers expressed their need for training in reading in a study conducted by Green (1978). Two-thirds of those content area teachers surveyed believed that undergraduate courses in reading should be provided for the content teacher. Another positive indication from his study pointed out that one-half of those surveyed felt that inservice could provide training for content area teachers.

Actual training that is taking place is bearing out the feelings of these content area teachers in the Green (1978) and Jackson (1979) surveys. An inservice program entitled Content Area Reading Project reported by Dupuis and Askov (1978) was a concerted effort to change attitudes of content area teachers toward reading. Fifty-eight junior high teachers from a teacher population of 317 took part in a year long training program. These teachers and a control group, not participating in the program, were given the Purdue Teacher Opinionnaire. Two other instruments developed by Dupuis were given to the workshop participants. The Statement Survey, a Likert-scale, measured attitudes toward incorporating reading instruction

in the content area. The second instrument used bipolar adjectives to measure attitudes used to describe a teaching reaction to a given situation involving reading in the classroom.

The initial score for the Science/Mathematics group was lower than the Language Arts group. After the year-long inservice of developing new strategies with all content area teachers, the posttest was given. Significant gains ($p < .01$) were measured in the attitudes of the Science/Mathematics group. Their attitudes were more positive at the end of the inservice than they were at the beginning of the inservice.

Variables Affecting Attitudes

Developing strategies with content area teachers brought about a more positive attitude toward reading in the study that Flanagan (1976) conducted. In the study, Flanagan developed her own instrument to measure attitudes toward content area reading instruction and to measure perceptions of competency in content area reading instruction. She taught the 224 junior and senior high teachers some specific illustrations of the concepts in content reading instruction.

Following the study the teachers showed a positive attitude toward teaching reading in the content area. The

participants felt that their major responsibility was to their content area. Variables which seemed to influence the teachers' perception of competency in reading were training in the teaching of reading and the amount of teaching experience. The instructional level did not influence the attitude toward reading or perception of competency. However, there was a positive correlation ($r = .57$) between attitudes and perceptions of competency in content area reading instruction. The data were significant at the .05 level.

Variables which influenced secondary teachers' attitudes were studied by O'Rourke (1980). He sent a questionnaire based on Vaughan's (1977) instrument to 480 Nebraska secondary teachers. A stratified sampling of 60 junior and 60 senior high teachers in each area of English, math, science, and social studies were the participants. Although not reporting the level of significance in his study, O'Rourke said that there was no difference in attitudes between junior and senior high teachers. He stated that the variable of teaching experience did not influence attitudes toward reading. Variables which seemed to have an influence toward positive reading attitudes were college reading courses, reading workshop participation, and content area of teaching, with English

scoring the highest and science scoring the lowest.

Conflicting data have been reported concerning the importance of certain variables on teachers' attitudes toward teaching reading in the content area. Using the Otto-Smith Attitude Inventory, Hargrove (1974) measured the attitudes toward reading in the content area of 286 junior and senior high teachers in Georgia and Wisconsin. Contrary to O'Rourke's study (1980), Hargrove reported that there was a significant difference ($p < .01$) between attitudes of junior and senior high teachers. Also contrary to O'Rourke's study, Hargrove's study disclosed that science teachers were the only content area teachers with a positive attitude toward teaching reading. Agreeing with O'Rourke, Hargrove reported that variables which appeared to be positive in influencing favorable attitudes toward teaching reading in the content area were college courses in reading and inservice training in reading strategies. Those variables which seemed to have no influence on attitudes were the sex of the participant and teaching experience.

Concurring with O'Rourke (1980) and using Flanagan's Inventory of Content Area Reading Instruction, Evans (1978) reported that English teachers have a more positive attitude toward teaching reading in the content area. The

significant differences were reported at the .05 level of significance. Evans questioned 300 English, social studies, and science teachers with 228 responses. Differing from the studies of O'Rourke (1980), Flanagan (1976), and others, Evans' study reported that there was no significant difference in attitude between the teachers who had training in reading and those who had not had training. There was, however, a significant difference in the perception of competencies between the teachers who had had some training in reading and those who had not had training in reading.

Attitudes of secondary teachers toward teaching reading in the content area have been measured quite often (Flanagan, 1976; O'Rourke, 1980; Jackson, 1979). But less often have there been studies conducted to measure reading attitudes of student teachers. Studies seemed to indicate, however, that there were attitude changes in general of student teachers which occurred during the student teaching experience (Price, 1971; Mahan & Lacefield, 1978, Land, 1972; Dewald, 1970).

Attitudes of Student Teachers

The change in dogmatism during student teaching has been measured by Johnson (1969) and Wiggins (1969). Both researchers used the Rokeach's Dogmatic Scale in pretests

and posttests given to student teachers and their cooperating teachers.

Johnson tested 80 college seniors of whom 51 were secondary education majors and 29 were elementary education majors. Seventy-seven were women. There were 80 supervising teachers in the survey. Of the 41 student teachers who pretested higher than their supervising teachers, 25 lost in dogmatism. For those 39 who tested lower than their cooperating teachers, 28 gained in dogmatism. Based on these data, Johnson stated, "The results provide clear evidence that the change in the degree of open- and close-mindedness of student teacher subjects may be a function of the dogmatism of their supervising teacher" (1969, p. 225-226).

Wiggins' (1969) report, based on a survey of 75 agriculture student teachers, concurred with Johnson's (1969) report. Although no significant difference was given, Wiggins said that a significant difference existed between treatment levels and total attitude change. He also said that the test showed when student teachers changed their attitudes they were "significantly influenced to change toward the directions of expressed opinion of cooperating teachers" (1969, p. 1062).

Another attitude change of student teachers studied by researchers has been the educational attitude change (Mahan & Lacefield, 1978; Price, 1971). Using three different instruments: Educational Preference Scale, Purdue Student Teacher Opinionnaire, and Most Effective Supervisor Ranking Device, Mahan and Lacefield investigated 54 elementary education student teachers and 42 cooperating teachers. In reporting the attitude change of the student teachers ($p < .013$) and cooperating teacher ($p < .43$), Mahan and Lacefield said that both the student teachers and the cooperating teachers showed attitudinal changes. However, the cooperating teachers' attitude change was less significant because ". . . being older, with more training and experience, he or she may well view the student and teacher relationship as a 'teacher-learner situation' . . ." (p. 14).

In another study concerning educational attitude changes, sixty-seven student teachers responded to the Minnesota Teacher Attitude Inventory (Price, 1971). Although the student teachers did not see themselves as having changed, Price reported an attitude change in the positive direction as a result of student teaching. He gave no level of significance.

The Minnesota Teacher Attitude Inventory, Semantic Differential Teacher Attitude Test and Watson-Glaser

Critical Thinking Appraisal provided data for Frank (1967) in his study which compared the results of three groups of 53 student teachers. Frank grouped the teachers into one group of 12 intern teachers, one group of 18 teaching apprentices, and one group of 23 first-year apprentices. He stated, in contrast to Price's study (1971), that there was no significant difference ($p < .05$) showing a positive attitude as measured by the Minnesota Teacher Attitude Inventory. In fact, the intern teachers exemplified a negative attitude on the Minnesota test. However, his overall data agreed with Price in that there were statistically significant positive attitude changes for all three groups separately and combined ($p < .01$). He suggested that the Watson-Glaser Critical Thinking Test had no predictive value.

A study of verbal behavior and attitude change in student teachers was made by Land (1972). His main concern was "the effect of a block of professional courses on the attitudes of secondary student teachers toward the curriculum and pupil-teacher relations and to describe the relation between verbal behavior and attitude during student teaching" (p. 5655). Although the instrument was not named in the study, Land said that there was a significant ($p < .0005$) level of change in attitude toward

curriculum and pupil-teacher relations associated with pre-student teaching courses. According to Land, there were no significant changes associated with student teaching. This finding about student teaching is in contrast with many other findings.

In agreement with Land, but in contrast to many studies (Price, 1971; Frank, 1967; Mahan & Lacefield, 1978) made concerning attitude changes of students during their student teaching experience, Castek (1970) conducted a study in which he concluded that the student teaching experience produced no significant changes in attitudes, philosophical views, or knowledge of professional secondary education. Two groups of 348 secondary students participated in his study. The Minnesota Teacher Attitude Inventory and the General Knowledge of Secondary Education were administered to 143 student teachers before student teaching and to 147 different student teachers after student teaching. Although he found no significant changes in attitudes, philosophical views, or knowledge of professional secondary education over a semester of student teaching for the total group, he did find significant differences in the following areas. When students were classified by teaching fields in relationship to their overall grade point average, there was

a significant difference in attitude change. Philosophical views among groups classified by teaching fields were also significantly different. There was also a significant difference in knowledge of professional secondary education reported among groups classified by teaching fields and overall grade point average. Castek did not report the level of significant difference in his study. His conclusion concerning his study was that the student teaching experience was not as important as most educators believed or that the "instruments used in this study were not sufficiently sensitive to detect significant changes that may have occurred" (p. 1659A).

Variables Affecting Attitude Changes

Castek (1970) and Land (1972) appeared to be in a minority of researchers who reported that the student teaching experience had no effect on changing attitudes of prospective teachers. In the studies which showed that attitudes of student teachers do change, many variables are identified which affected the changes (Frank, 1967; Johnson, 1969; Price, 1971; Scherer, 1979; Smith & Smith, 1979; & Land, 1972).

Sex. Price (1971) reported that he studied the sex of student teachers as a variable in his research. He reported a positive attitude change during the student

teaching experience. However, Price suggested that no significant relationship existed between the scores and the sex of the participants.

Land (1972), using an unnamed instrument, disagreed with Price. In reporting a significant (.0005 level) change in attitude toward curriculum and pupil-teacher relations, he suggested that the sex of the participants made a difference. He stated that "female students had a statistically significant (.025) positive attitude change greater than the male students" (p. 5655).

School Setting. The location of the school as a variable was also part of Price's study (1971). He reported that there was no significant relationship between the scores of the students and the school assignment.

Bitner (1975) disagreed somewhat with Price in his assessment of the influence of the school setting on the student teaching experience and its continuing influence on first-year teachers. He had researched the influence that the inner-city schools' and the suburban schools' student teaching experience had on beginning elementary teachers.

Fifty-five first-year teachers were surveyed: two black females, 3 white males, and 50 white females. The Peck Veldman One-Word Sentence Completion, Brown Self-Report Inventory, and Veldman Directed Imagination Test

were used to collect data in the affective domain. The principals' ratings and Teacher Appraisal Inventory were used to rate classroom effectiveness. Bitner reported no level of significant difference in his study.

In his findings, he reported that inner-city and suburban student teachers showed no significant difference in adjusting and teaching effectiveness during the first year as inner-city teachers. When inner-city and suburban student teachers were placed in suburban school settings, there was no significant difference in adjusting and teaching effectiveness. He stated that data suggested a high probability of success for suburban student teachers who student taught in inner-city schools. There was also no significant difference discovered in self-perception, empathy, view of children, confidence in the classroom, discipline, and teaching effectiveness between the inner-city student teachers and the suburban student teachers. However, the first-year suburban teacher was more optimistic, had a better general attitude toward teaching, a better general adjustment and mental health than the inner-city first-year teacher.

Smith and Smith (1979) agreed with the findings of Bitner in the conclusion of their study of the effect of teaching the poor upon the student teacher. Two groups of

64 elementary teachers were pretested and posttested using the instruments Tennessee Self-Concept Scale and California Psychological Inventory. One group of students were assigned to a middle income teaching area. The second group was assigned to an area that met Title I poverty guidelines. When the pretest was administered, no statistical difference existed ($p < .05$). But the posttest scores showed a significant difference existed in self-satisfaction, personal self, social self, and self acceptance. The students in the Title I area were lower in these categories.

The effect of student teaching in an inner-city school seemed to be nil when the student teacher volunteered for the assignment (Sughrue, 1977). Sughrue administered the Minnesota Teacher Attitude Inventory, Rokeach Dogmatism Scale and Values Concerning Disadvantaged Pupils' Questionnaire to 59 male and female subjects. These 59 subjects included a group of volunteers in the inner-city schools and a control group of student teachers who taught in suburban schools. In reporting that no significant differences existed between the two groups, Sughrue failed to give a level of significance.

Content Area. Another variable considered in studies of attitude change of student teachers is the

content area in which they are teaching. Although Castek (1970) reported that he detected no significant difference in the test scores of prestudent teaching and poststudent teaching, he noted in his findings that a significant difference existed in changes in philosophical views and attitudes when the students were grouped according to teaching fields. He did not state which fields showed the most significant gains.

Price (1971) disagreed with Castek's findings by saying that no significant relationship existed between the scores in his testing and the subject area assignment of the student teacher. Consideration of the influence of the content area upon the general attitude change of student teachers has not been explored extensively.

Field Experiences. Having experiences with children before student teachers entered the classroom, was another factor which might affect the student teacher. In studying the relationship between field experiences and student teaching performances at the secondary level, Folkert (1978) found that student teachers with previous in-school experiences rated significantly higher ($p < .15$ level of significance) than those students without any previous experiences with children. The performances that were examined were rapport with students and staff, classroom

management, subject knowledge and preparedness of teaching techniques, and personal and professional characteristics. Folkert's conclusion came as a result of data collected from the Edwards Personal Preference Schedule and a "self-rating form on perceived effectiveness and information about student teaching and amount and type of field experiences prior to education classes" (p. 236). This form was developed by Folkert.

One hundred twenty-seven secondary student teachers were participants in Folkert's study. They were divided into four groups. Group I had over 50 hours in in-school experiences; group II had under 50 hours of in-school experiences. Group III's experiences with students came from outside the school setting and no time limit was placed on their experiences. Group IV had no previous experiences with children. Folkert determined that the amount of time spent with children before the student teaching experience was not significant at the $p < .15$ level.

Reasons for providing early field experiences for education majors were discussed by Seiforth and Samuel (1979). They said that students in education need to be exposed to many different teaching modes and kinds of teachers. Many problems of the classroom cannot be

duplicated in the college classroom. Another reason for early field experiences is that they help the student decide on a career. Along with developing practical skills through early experiences, developing positive attitudes was emphasized as being an important result of early field experiences.

Not all research reported that early field experiences were necessary for a positive student teaching experience. Scherer(1979) reported that early field experiences did not have an effect on the performances of the student teacher as measured by the Student Teaching Competencies Scales. Sixteen students with previous field experiences and 23 with none were pretested. Thirteen of the 16 students with previous experience were posttested along with 19 of the no-previous field experience group. Beside the STC Scales, the two groups were tested using the Tennessee Self-Concept Scale Clinical and Research instrument. Pre-test data showed a significant difference in the two groups reported at the .05 level of significance. On the posttest there was a significant difference reported at the .02 level of significance between the two groups.

Scherer's main concern lay in the timing of the field experiences. She postulated that the negative impact of "reality shock" should be experienced before student

teaching " . . . in order to insure optimum results later" (p. 213).

Age. Age did not seem to be an important variable in attitude change of student teachers. Both Price (1971) and Dewald (1970) reported in their findings that age made no significant difference in affecting the attitudes of student teachers. Dewald (1970) conducted a study to determine factors influencing attitude changes of student teachers. The Minnesota Teacher Attitude Inventory was used as a pretest and posttest instrument in the study. No level of significance was given in reporting that age had no effect on the change in attitude of student teachers toward children in the classroom.

College Courses. A seldom explored variable that may influence changes in attitude of students entering teaching was the variable of college courses. McEwin (1968) conducted research on the attitude of education majors before and after taking methods courses. The Minnesota Teacher Attitude Inventory was given as a pretest and posttest. Without giving a level of significance, McEwin stated that there was a positive attitude change toward teaching which occurred during methods courses.

Cooperating Teachers. The variable which might affect change in the student teacher during student teaching that

had been reported most often was the variable of the cooperating teacher. The majority of the studies suggested that the cooperating teacher had a great influence (Hardy, 1978; Karmos & Jacko, 1977; Wiggins, 1969). However, some research suggested that the influence of the cooperating teacher was not as significant as many educators supposed that it was (Holmes, 1969; Campbell & Williamson, 1978).

The role of "significant other" during student teaching was identified in a survey by Karmos and Jacko (1977). They interviewed 60 student teachers whose age ranged from 20-57. Twenty of the students were married; 70% were female. Most of the student teachers were teaching on the secondary level (66.7%); however, 25% were elementary and 8.3% were all-level. Karmos and Jacko developed a Significant Others Instrument to allow free response by the student teachers. Thirty-four students named the cooperating teacher as the most influential in the student teaching experience. Karmos and Jacko further stated that "their influence was perceived to be more in personal support and role development than in skill development" (p. 54).

Another way that cooperating teachers influenced the student teacher was in the concerns which the student teacher developed during student teaching (Hardy, 1978). One hundred forty-two student teacher dyads were involved

in the study using the Teacher Concern Checklist developed by Fuller in 1974 and the Student Teaching Problem Checklist developed by the author for the study. The hypotheses for the study were tested at the significance level of $p < .05$. Hardy concluded that cooperating teachers exerted a significant influence on the concerns of student teachers and "this influence is directional toward the concerns level of the cooperating teacher" (p. 7280). He stated that "maturation (based on Fuller) of the student teaching concerns can be accelerated or impeded by influence exerted by the cooperating teacher" (p. 7280).

Along with influencing concerns of student teachers, Johnson (1969) and Wiggins (1969) pointed out in their conclusions other areas of attitude change which the cooperating teacher seemed to influence. In Johnson's study (1969), reported earlier, Johnson stated that the cooperating teacher influenced the dogmatism of the student teachers. Wiggins (1969) expressed in his conclusions that the cooperating teacher influenced the change of attitudes of student teachers toward the direction of expressed opinion of the cooperating teachers.

Though many studies showed that the cooperating teachers had a significant influence on the attitudes of student teachers, some researchers differed by saying that

the influence was not as great as might have been suspected (Holmes, 1969; Campbell & Williamson, 1978). A study of the relationship that exists between classroom behaviors of the cooperating teacher and the student teachers was made by Holmes (1969). Thirty-two elementary student teachers and their cooperating teachers were tested using David Ryan's Characteristics of Teacher Study. The cooperating teachers took the test once, while the student teachers were pretested and posttested using the same instrument. Although he reported no level of significant difference, Holmes made these conclusions. There was no change in warmth and friendliness, businesslike and systematic conduct, and imaginative behavior of student teachers as affected by the cooperating teacher. The second conclusion was that pre-student teaching behavior was an accurate predictor of post-student teaching behavior.

Campbell and Williamson (1978) reported that the cooperating teacher was not "a major factor in the student teacher becoming more or less humanistic or custodial in his care of students" (p. 141). The conclusion was made after studying the data furnished by a sample of 27 secondary student teachers placed in an inner-city ghetto school and 58 secondary student teachers placed in white, middle-class schools. Data was furnished also by the

cooperating teacher of each student teacher. The instrument used was The Pupil Control Ideology Inventory. No level of significance was stated in the report.

Attitudes toward Reading

The literature had a great deal to say about changes in the student teaching experience, although some researchers doubted the importance of the change. Researchers disagreed concerning the importance of various factors which may influence a change. Although many studies have been made concerning general attitude changes of the student teacher, there have not been many studies made concerning the student teacher's attitude toward reading.

In a general study on attitudes of college students toward reading, Phlegar (1975) gave an inservice in reading for content area teachers. Students of these teachers were given a pretest and posttest questionnaire (unnamed in the report). Phlegar reported that female students enjoyed reading more but that male students spent more of their free time reading about the subject. There were significant differences between the attitudes of teachers and their students. Lastly, attitudes toward reading were changed. No level of significance was given.

Schofield and Start (1977) used student teacher attitudes toward reading to develop an instrument to

assess primary school teachers' attitudes toward reading and the teaching of reading. Data based on a significant difference level of $p < .05$ were taken from 317 student teachers of Australian colleges. One conclusion based on the data was that "teachers' reading achievement was not significantly related to positive attitudes toward teaching reading to children" (p. 250).

The Q-sort method provided a means of data gathering for Terwilliger (1968), as he studied the belief changes of student teachers during the student teaching experience. Fifty-one student teachers and 51 cooperating teachers participated in the Q-sort at the beginning and ending of the student teaching experience. His conclusions were not supported with a level of significance stated in the report. Terwilliger stated that the student teachers' attitudes may not change during student teaching and that if there are changes, the changes may not be in the direction of the attitudes of the cooperating teachers.

These three studies (Phelgar, 1975; Schoefield & Start, 1977; Terwilliger, 1968) indicated that not a great deal of research had been done in the area of student teachers' attitude change toward reading in the content area. Many of the studies were concerned with attitudes

in general, but not changing attitudes toward teaching reading in the content area as influenced by the student teaching experience.

Summary

In this chapter a discussion of the literature has been made as it related to content area teachers' attitudes toward teaching reading and the variables which might have influenced these attitudes. A part of the chapter dealt with general attitude changes which student teachers experienced as a result of student teaching. Both positive and negative reports concerning variables which might affect the changes were included. A short discussion concerning the attitudes toward reading of college students, including student teachers, was made.

CHAPTER 3

Procedure

The purpose of this research was to determine if the student teaching experience had any influence on the student teacher's attitude toward teaching reading in the content area classroom. This chapter describes the study that was conducted by the researcher. Included in the discussion are the research questions, hypotheses, the setting of the study, the population, the instrumentation, and the data collection procedure.

Research Questions

Two questions were addressed in the research.

1. Did the student teaching experience change the student teacher's attitude toward teaching reading in the content area classroom?
2. If the attitude were changed during the student teaching experience, did the following variables have an influence on the change: the sex of the student teacher, the location of the school, the college reading courses taken by the student teacher, the content areas in which the student teacher taught, any previous experiences with children, the age of the student teacher, and the attitude of the cooperating teacher?

Null Hypotheses

The following null hypotheses were tested at the .05 level of significance, using a nondirectional t test.

1. There will be no significant difference in the attitude toward teaching reading in the content classroom of the student teachers before they begin their student teaching experiences and after they have completed their student teaching experiences.
2. There will be no significant difference found in the attitude toward teaching reading in the content area classroom between male student teachers and female student teachers after they have completed their student teaching experience.
3. There will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers placed in an urban classroom and student teachers placed in a suburban classroom after they have completed their student teaching experience.
4. There will be no significant difference in the attitude toward teaching reading in the content classroom between student teachers who have had

at least one course in reading and the student teachers who have had no courses in reading after they have completed their student teaching experiences.

5. There will be no significant difference in the attitude toward teaching reading in the content area classroom among student teachers who are assigned to language arts classrooms and student teachers who are assigned to other disciplines of study.
6. There will be no significant difference in the attitude toward teaching reading in the content classroom between the student teachers who have had less than a year of previous experiences with children and the student teachers who have had more than one year of previous experiences with children.
7. There will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers who are under 25 years of age and the student teachers who are 25 years of age and older.
8. There will be no significant difference in the relationship between the attitude toward

teaching reading in the content area classroom of the student teachers and cooperating teachers before and after the student teaching experience.

The Setting

The setting of this study was a large metropolitan area in the Southwestern part of the United States. At least twelve colleges and universities supply the area with student teachers each year. These student teachers are placed in urban and suburban school districts for their student teaching experiences.

The student teaching experiences are usually conducted during the senior year of an education major's college course work. Permission is granted from the university or college for the student to enter the classroom for student teaching purposes.

This student teaching experience provides an opportunity for the students to have a day-to-day experience in conducting classes. Usually the student teachers observe their cooperating teachers directing the learning experiences. Then gradually the student teachers assume more of the teaching responsibility until they are completely in charge of teaching. Student teachers have opportunity to try techniques of teaching which they have learned in

their college courses and have observed being used in the classroom by other teachers.

The Population

The major colleges and universities in the metropolitan area were asked to supply the names of students who were student teaching in the Fall, 1980. Nine of the colleges and universities responded. One college had only one secondary student teacher and would not allow that student to participate in the program.

Colleges. Two of the institutions which responded were classified as colleges. Both of these colleges are private institutions, having some financial support provided by a church-related group. Student bodies of each campus ranged from approximately 1,000 to 2,000 students in the Fall, 1980. One school offers graduate studies in Master of Arts and Master of Science degrees designed to improve teaching skills in the classroom. The other college only offers undergraduate level programs in teacher education.

Universities. Some of the universities that responded were state-supported institutions and some were privately owned. All of the universities except one provide four years of undergraduate study. The exception offers only

the junior and senior levels of undergraduate study leading to the baccalaureate degree.

Most of the universities had their beginnings during the late 1800's and have changed and grown to fit the needs of the populace in the area. One school was designated as the Normal College for the area of the state in which it was located. The universities have from five to ten schools and/or colleges within their scholastic structures, each headed by a dean. All colleges and universities from which the population of student teachers was taken are accredited by the regional Association of Colleges and Schools and the state Education Agency.

Student Teachers. Letters to the directors of student teaching from area colleges and universities requesting that they send a list of their Fall, 1980, student teachers were mailed during July, 1980 (Appendix A). A follow-up letter was required during August, 1980, (Appendix B) as the number of student teachers obtained from the directors of student teaching was less than initially proposed.

Response from an additional director of student teaching during mid-October allowed an increase in the number of student teachers to become part of the study. Those student teachers had a later beginning date for

their student teaching experience. With this second group of student teachers, the total was still less than the initially proposed random sample of student teachers. Therefore, no sampling was done. All student teachers who agreed to participate in the study were included.

The Instrumentation

Two instruments were used in the study. One instrument was a Likert-type scale called "A Scale to Measure Attitudes toward Reading in Content Classrooms." This instrument was developed by Joseph L. Vaughan, Jr. (1977). The other instrument was developed by the researcher to identify variables for the study.

The Attitude Scale. There is a paucity of scales designed to measure attitudes toward reading in the content classroom. One criticism about those that have been developed is that they have only face validity (Vaughan, 1977). Joseph L. Vaughan (1977) developed an assessment of attitudes toward reading in the content classroom because he saw the need for an instrument which had not only face validity, but also reliability, convergent validity, sensitivity to treatment, and discriminant validity. Over a period of two years of investigation, Vaughan examined his instrument for internal consistency

and reliability. "The coefficient of internal consistency for the total scale was .87 (Cronbach's Alpha), very high for an attitude scale" (Vaughan, 1977, p. 606). Using the Pearson product-moment correlation, the median stability coefficient was .77, with a range of .66 to .89.

To show the validity of the instrument, Vaughan examined three aspects of validity. These aspects included convergent validity, sensitivity to treatment, and discriminant validity. "The mean score of the two groups' responses to the scale indicated a difference of 16.4 ($p < .001$)" (Vaughan, 1977, p. 606). A comparison of each item indicated that the differences favored the group previously identified as "having a high attitude toward the construct" (Vaughan, 1977, p. 606). When the instrument was administered to those two groups, there was a significant difference ($p < .01$) in favor of the experimental group, a group of students in a graduate education course.

Vaughan compared the scores on this scale with the scores on a scale on attitudes toward open education. The range from .13 to .40 had a median value of .25. The low correlation is an indication that the two scales measure different attitudes and shows that discriminant validity has been determined.

Another reason for choosing the instrument is the ease with which it can be administered. It can be given to a group of persons or to an individual. There is no time limit in giving the instrument.

Although Vaughan went to great length to validate the instrument, it has not escaped criticism. Edwards (1979) administered this instrument and two others to a sample of 25 teachers. She stated that when comparing the three tests, Vaughan, Flanagan, and Smith-Otto, she found little consistency in the three tests, even though they were reported to be measuring the same thing. The correlation "between the Flanagan and Vaughan instruments was $-.40$; and that between Smith-Otto and Vaughan instruments was $.12$ " (p. 22). Edwards further claimed that the Vaughan instrument "elicited negative responses" (p. 22).

On the basis of Vaughan's reliability and validity studies, the present investigator chose to use the instrument in spite of the above criticism. Because the instrument was used as both a pretest and a posttest measure, the attitude change might possibly be detected.

Data Sheet. In order to identify factors which might relate to a change in the attitudes toward teaching reading in the content classroom, the researcher designed a data

sheet (Appendix G) to identify the variables to be studied. Those variables were the sex of the student teacher, the location of the school in which student teaching took place, the college reading courses taken by the student teacher, the content area in which the student teacher taught, any previous experiences with children, the age of the student teacher, and the attitude of the cooperating teacher.

Data Collection Procedure

Data for the study were provided by the student teachers and their cooperating teachers. Permission was necessary from the school districts for participation in the study by the cooperating teachers. Names of student teachers were provided by the directors of student teaching from each college or university.

School Districts. Permission requests were made to the school districts within the metroplex area on June 30, 1980 (Appendices C & D). Included in the letter of request were copies of the instruments to be used in the study (Appendices I & J), the consent form (Appendix K) which the teachers were to sign, and the letter of request that was sent to the cooperating teacher (Appendix H). Six school districts answered giving permission for their

teachers to participate in the study. One district declined to give permission. On July 24, 1980, a second letter (Appendix E) was sent to the school districts who had not replied to the initial request. Some of the districts requested additional information concerning the study. After satisfying the school districts' request, the researcher received permission from ten more public school districts for their teachers to participate in the study. The total number of school districts involved in the study was 16.

Colleges and Universities. On July 2, 1980, a request was made of 12 colleges and universities for a list of the Fall, 1980, secondary student teachers (Appendix A). Included with this letter were the instruments to be used in the study (Appendices I & J) and the letter to the student teacher (Appendix F). Because of a small response to the request, a follow-up letter was necessary. Initially, eight colleges and universities replied. However, only seven furnished the names of secondary student teachers. One director of student teaching said that he had only one secondary student teacher and permission could not be obtained from him to include the student in the study. These seven colleges and universities supplied an initial listing of 157 names and addresses of student teachers

and the school districts to which they were assigned to do their student teaching.

Telephone contact was made with an additional university during October, 1980. The request for names of student teachers beginning their student teaching experience later in the semester was filled with an additional twenty-nine students and their cooperating teachers. The total number of colleges and universities was eight and the total population of student teachers was one hundred eighty-six.

Student Teachers. Initial contact with the student teachers was made on September 2, 1980. The student teachers were sent a letter of explanation concerning the study (Appendix F). Attached to the letter were the consent form (Appendix K), the data sheet (Appendix G), and the questionnaire which measures attitudes toward teaching reading in the content classroom (Appendix J).

By September 18, 1980, 30 replies or 19% of the initial 157 letters were returned. A follow-up letter (Appendix L) was mailed to 127 students. Eighteen students responded to the follow-up letter, making a total of 48 student teachers who responded. There was no personal contact with any participants, no examination of the setting, nor any observation of teaching procedure.

As initial mailing did not produce a large enough population for the study, on November 1, 1980, a second group of 29 student teachers were sent the letter of explanation (Appendix F), requesting that they participate. Attached to the letter of request were the consent form (Appendix K), the data sheet (Appendix G), and the instrument which measures attitudes toward teaching reading in the content classroom (Appendix J). This group of student teachers began their student teaching experiences October 23, 1980. Their late beginning date enabled the researcher to include them in the population. Because the time did not allow follow-up letters, there were none sent to these student teachers. Five student teachers responded from this group. Forty-eight student teachers responded from the initial group and 5 student teachers responded from the second group. Therefore, 53 student teachers participated in the pretest. This number is 28% of the 186 original requests made for participation in the study.

Cooperating Teachers. The data sheet of the student teacher (Appendix G) was the only source for the names of the cooperating teachers. As the student teachers returned their questionnaires, the cooperating teachers were contacted. Initially, forty-eight cooperating teachers were

sent a letter of explanation (Appendix H), the consent form (Appendix K), the data sheet (Appendix I), and the questionnaire which measures attitudes toward teaching reading in the content classroom (Appendix J). A total of 22 returns or 44% of the 48 initial inquiries were received by October 1. Follow-up letters (Appendix M) were sent. Through the initial inquiry and the follow-up letters, a total of 33 cooperating teachers responded to the pretest.

Because a larger population was desired, a second group of cooperating teachers were sent the letter of explanation (Appendix H), the consent form (Appendix K), the data sheet (Appendix I), and the questionnaire which measures attitudes toward teaching reading in the content classroom (Appendix J). The names of the second group of cooperating teachers were supplied by the university at the same time that the names of their student teachers were supplied. Therefore, twenty-nine letters were sent. These twenty-nine cooperating teachers plus the forty-eight cooperating teachers from the initial group totaled 77 cooperating teachers to whom were sent the pretest.

Sixteen cooperating teachers from the second group responded. However, only four of the cooperating teachers' returns could be paired with their student teachers. Thus,

twelve cooperating teachers' returns could not be used in the study.

After the administration of the pretest, there was a total of 37 pairs of student teachers and cooperating teachers. Thirty-three came from the initial request and four came from the second group of requests.

In order that the pretest not be contaminated by teaching experience in the classroom, an arbitrary cut-off date of three weeks into the student teaching experience was set for use of the pretest data supplied by all student teachers. This cut-off date applied to both the first group of student teachers and those who started at the later date.

Test Scoring. "A Scale to Measure Attitudes toward Teaching Reading in Content Classrooms" (Vaughan, 1977) is a 15-item questionnaire (Appendix J) which allows for seven possible responses to each item. The possible responses are these: 7 = strongly agree, 6 = agree, 5 = tend to agree, 4 = neutral, 3 = tend to disagree, 2 = disagree, and 1 = strongly disagree. Nine of the items are positive, while six are negative. Vaughan (1977) stated that "the negative items should be scored in reverse from the positive items" (p. 608). Based on the scores for each item, a

sum was computed for the total test. Appendix P correlates the range of scores with the attitude toward teaching reading in the content classroom. Since the same instrument was used for the pretest and the posttest, the scoring was the same.

Posttest Data. At the conclusion of student teaching, fifty-three letters (Appendix N) and Vaughan's instrument (Appendix J) were sent to the 53 participating student teachers to determine if there had been a change in their attitude toward teaching reading in the content classroom. Thirty-seven letters were sent to the 37 participating cooperating teachers (Appendix N), along with the questionnaire (Appendix J). All 110 participants were asked to return the questionnaire immediately. Thirty-five returns were received from the student teachers along with twenty-four returns from the cooperating teachers. On January 23, 1981, follow-up letters (Appendix O) were mailed to 18 student teachers and 13 cooperating teachers. An additional response of eleven student teachers and nine cooperating teachers made a total of 46 student teachers and 33 cooperating teachers who responded to the posttest. Of that total there were 27 pairs of student teachers and cooperating teachers.

Summary

This chapter stated the questions and hypotheses for the study. The study was conducted among student teachers and cooperating teachers in the Southwestern part of the United States. The compiled list of student teachers was provided by eight colleges and universities. Cooperating teachers' names were furnished by the student teachers. One hundred eighty-six student teachers were initially mailed Vaughan's instrument measuring attitudes toward teaching reading in the content classroom as a pretest, along with a consent form and an information sheet identifying variables for the study. Fifty-three student teachers responded and were sent the posttest. Forty-six student teachers responded to the posttest. The names of seventy-seven cooperating teachers were initially furnished by student teachers and one university. Thirty-seven cooperating teachers responded to the pretest and were sent the posttest. Thirty-three returned the posttest, but only twenty-seven were paired with student teachers. Responses of six cooperating teachers could not be used. Test scoring was obtained by totaling the responses made to each item on the questionnaire. A choice of responses was made on a Likert-type scale ranging from seven to one, seven being strongly agree and one being strongly

disagree. The pretest, posttest, and the information sheet provided the data for the study.

CHAPTER IV

Results

This chapter reports the data which were gathered in order to determine if the student teaching experience influences a change in attitude toward teaching reading in the content classroom. These data are discussed according to the variables which were identified in the hypotheses.

The Computer

The data were analyzed using a remote computer terminal designed by Digital Equipment Corporation. The statistical package used to analyze the data was STAT11 (RSTS/E, 1974). STAT11 runs under the PDP-11 Extended Resources Sharing Time-Sharing System (RSTS/E). STAT11 provides elementary statistics, including the number of subjects, mean, standard deviation, and standard error. Seven different hypotheses were stated in which the t value was calculated. Table 1 gives the summary statistics for the pre and post attitude testing for the student teachers and cooperating teachers.

Table 1
 Summary Statistics for Pre and Post Attitude
 Testing for Student Teachers
 and Cooperating Teachers

	N	Pre		Post	
		\bar{X}	SD	\bar{X}	SD
Student Teachers	46	78.37	9.90	79.61	10.80
Cooperating Teachers	27	78.74	9.64	78.78	10.44
Male Student Teachers	10			74.4	9.0
Female Student Teachers	36			81.1	11.0
Urban	15			81.1	8.3
Suburban	31			78.9	11.9
No Reading Courses	24			78.5	9.3
Reading Courses	22			80.9	12.3
Language Arts Area	6			82.5	6.2
Non-language Arts	40			79.2	11.3
Field Experiences	38			80.3	11.4
No Field Experiences	8			76.0	7.0
Less than 25 Years	21			78.0	10.2
25 Years and Older	25			81.3	11.1

Variables of the Study

The first hypothesis stated that there will be no significant difference in the attitude toward teaching reading in the content classroom of the student teachers before they begin their student teaching experiences and after they have completed their student teaching experience. Appendix Q gives pre and posttest attitude scores of the participants. Of all student teachers who were sent questionnaires, forty-six answered both the pretest and the posttest questionnaire. The mean score for pretest attitude scores ($\bar{X} = 78.37$, $SD = 9.90$) was lower than the mean score ($\bar{X} = 79.61$, $SD = 10.80$) for the posttest attitude scores. With 90 degrees of freedom, the computed value of t was -0.57344 . The difference was not significant at the .05 level, using a nondirectional t test.

Sex of Student Teacher. Hypothesis 2 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom between male student teachers and female student teachers after they have completed their student teaching experience. Ten male student teachers or 22% of the 46 respondents returned the questionnaire and thirty-six female student teachers or 78% of the respondents returned the questionnaire. The computer

adjusted for the different group size in computing \underline{t} . The mean score of the male student teacher ($\bar{X} = 74.4$, $SD = 9.0$) was lower than the mean score of the female student teacher ($\bar{X} = 81.1$, $SD = 11.0$). With 44 degrees of freedom, the computed \underline{t} -value ($t = -1.76322$) was not significant at .05 level, using a non directional \underline{t} test.

Locale of Student Teaching. Hypothesis 3 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers placed in an urban classroom and student teachers placed in a suburban classroom after they have completed their student teaching experience. Thirty-three percent, or 15 student teachers who responded, were assigned to urban schools. Those students who were teaching in a suburban setting represented 67 percent of the respondents, or 31 student teachers. The mean score of the suburban student teachers ($\bar{X} = 78.9$, $SD = 11.9$) was lower than the mean score of the urban student teachers ($\bar{X} = 81.1$, $SD = 3.3$). With 44 degrees of freedom, the computed value of \underline{t} was .063239. The difference was not significant at the .05 level, using a nondirectional \underline{t} test.

College Reading Courses. The fourth hypothesis stated that there will be no significant difference in the attitude toward teaching reading in the content classroom between

the student teachers who have had at least one course in reading and the student teachers who have had no courses in reading after they have completed their student teaching experience. Fifty-two percent, or 24 respondents, had not had any reading courses. Forty-eight percent, or 22 respondents, had taken at least one college course in reading. The mean of the group with no college reading courses ($\bar{X} = 78.5, SD = 9.3$) was lower than the group with at least one college reading course ($\bar{X} = 80.9, SD = 12.3$). The computed t -value was .75058 with 44 degrees of freedom. This difference was not significant at the .05 level, using a nondirectional t test.

Content Area Assignment. Hypothesis 5 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom among student teachers who are assigned to language arts classrooms and student teachers who are assigned to other disciplines of study. Only six student teachers, or 13 percent of the 46 students who responded, were assigned to language arts classrooms. Forty student teachers, or 87 percent of the 46 respondents, were assigned to non-language arts classrooms. This mean of the non-language arts student teachers ($\bar{X} = 79.2, SD = 11.3$) was lower than the mean of the language arts student teachers ($\bar{X} = 82.5, SD = 6.2$). The computed t

value was 0.69894 with 44 degrees of freedom. This difference was not significant at the .05 level, using a nondirectional t-test.

Experiences with Children. The sixth hypothesis stated that there will be no significant difference in the attitude toward teaching reading in the content classroom between the student teachers who have had less than a year of previous experiences with children and the student teachers who have had more than one year of previous experience with children. Seventeen percent, or 8 of the 46 respondents, had less than one year of experience with children. Eighty-three percent, or 38 of the 46 respondents, had more than one year of experience with children. The mean of the student teachers with less than one year of experience with children ($\bar{X} = 76.0$, $SD = 7.0$) is lower than the mean of the student teachers with more than one year of experience with children ($\bar{X} = 80.3$, $SD = 11.4$). The computed t-value was 1.0348 with 44 degrees of freedom. This difference was not significant at the .05 level, using a nondirectional t-test.

Age of the Student Teacher. Hypothesis 7 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers who are under 25 years of age

and the student teachers who are 25 years of age and over. Forty-six percent, or 21 of the 46 respondents, were under 25 years of age. Fifty-four percent, or 25 of the 46 respondents, were 25 years of age and older. The mean score of the younger group of student teachers ($\bar{X} = 78.0$, $SD = 10.2$) was lower than the mean score of the older group of student teachers ($\bar{X} = 81.3$, $SD = 11.1$). With 44 degrees of freedom, the computed value of t was -1.02031 . The difference was not significant at the .05 level, using a nondirectional t -test.

Cooperating Teachers' Attitudes. The last hypothesis considered in this study stated that there will be no significant difference in the relationship between the attitudes toward teaching reading in the content area classroom of the student and the cooperating teachers before and after the student teaching experience. In the study, a total of 33 cooperating teachers and 46 student teachers responded to the questionnaire. Of this number, there were 27 cooperating teachers who were paired with responding student teachers. Therefore, responses of six cooperating teachers could not be used because they could not be paired with a student teacher. Table 2 compares the number, the Pearson r and the z_r of pretests and posttests of the dyads of student teachers and cooperating teachers.

Table 2

A Comparison of Pearson r and z_r of Paired Student and Cooperating Teachers on the Vaughan Attitude Scale of Teaching Reading in the Content Area

	N	Pearson r	z_r
Pretest	27	.126357	.127
Posttest	27	.097700	.098

Twenty-seven pairs of student teachers and cooperating teachers completed the pretest and the posttest. From their pretest attitude scores, the Pearson r_1 was computed to be .126. The Pearson r_1 was converted to z_{r_1} value of .127. Posttest data of student teachers and cooperating teachers were computed to yield the Pearson r_2 of .098. The r_2 value was converted to z_{r_2} value of .098.

Fisher's z_r transformation formula (Ferguson, 1971) was used to determine the significance of the difference between the coefficients, r_1 and r_2 . When the formula was calculated, Fisher's z transformation was .10046. The z value of .10046 was not significant at the .05 level.

Summary

Forty-six student teachers' posttest scores were grouped according to certain variables investigated in the study. Their mean scores were compared by applying t-tests to the data and by using Fisher's z_r transformation formula to compare correlation coefficients. None of the data were found to be significant at the .05 level of significance, using nondirectional t-tests.

CHAPTER V

Summary, Findings, Implications and Recommendations

This chapter is divided into four sections. The Summary provides an overview of the study. The Findings summarize the data that were reported in Chapter IV. The third section, Implications, discusses the findings as they relate to the previous literature about attitudes toward teaching reading in the content area classroom. The Recommendations are made concerning further study.

Summary

The problem of the study was to determine if there were any attitude changes of the student teachers toward teaching reading in the content area classroom after they had completed their student teaching experiences. Vaughan's instrument "A Scale to Measure Attitudes Toward Teaching Reading in the Content Classrooms" (1977) was used to measure the attitudes. The project director developed an instrument to identify the variables in the study. Several hypotheses were formulated and limitations and assumptions were made concerning the study.

A study of the previous literature revealed that general attitude changes were made as a result of the student teaching experience. However, there is little information available on any changes in the attitude of reading in the content classroom. From those studies which are available, one finds conflicting reports as to which variables influence a general change of attitude after the student teaching experience.

The study was conducted among student teachers and cooperating teachers in the Southwestern part of the United States. The compiled list of student teachers was provided by eight colleges and universities. One hundred eighty-six student teachers were initially mailed Vaughan's instrument measuring the attitudes toward teaching reading in the content classroom, along with a consent form and an information sheet identifying variables for the study. The variables identified were: sex of the student teacher, location of the student teaching, number of college reading courses, content area assignment, previous experiences with children, age of student teacher, and attitude of the cooperating teacher. Fifty-three student teachers responded and were posttested. Forty-six student teachers responded to the posttest.

Because the names of the cooperating teachers were initially furnished the researcher by the student teachers and by one university, only seventy-seven were sent the pretest, along with the consent form and the data sheet. Thirty-seven cooperating teachers responded to the pretest and were sent the posttest. Thirty-three returned the posttest, but only twenty-seven were paired with student teachers. Responses of six cooperating teachers could not be used.

Test scoring was obtained by totaling the responses made to each item. A choice of responses were made on a Likert-type scale ranging from seven to one, seven being strongly agree and one being strongly disagree. The pretest, posttest, and the information sheet provided data for the study.

The forty-six student teachers' posttest scores were grouped according to the variables investigated in the study. Their mean scores were compared by applying t -tests to the data and by the use of the Fisher z_r transformation formula to compare correlation coefficients. None of the data were found to be significant at the .05 level of significance, using a nondirectional t -test.

Findings of Data

The first hypothesis stated that there will be no significant difference in the attitude toward teaching reading in the content classroom of the student teachers before they begin their student teaching experiences and after they have completed their student teaching experiences. The t -value of -0.57344 was not significant at the $.05$ level, using a nondirectional t -test. Although the difference was not statistically significant, there appears to be a slight change in attitude as shown by the increase in the mean of the posttest scores over the mean of the pretest scores. The mean score on the posttest indicates an overall attitude of average. Appendix P indicates that this mean score of 79.6 is only 1.4 away from the next category of above average. While it appears that the student teaching experience does not significantly change the student teachers' attitude toward teaching reading in the content area classroom, the student teachers seem to be exemplifying at least an average attitude toward teaching reading in the content classroom. Hypothesis 1 is accepted.

Sex of the Student Teacher. Hypothesis 2 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom between male student teachers and female student teachers

after they have completed their student teaching experience. Although the data did not indicate an overall change of attitude toward teaching reading in the content area, the variable which indicated the most difference among groups of student teachers was sex. The highest attitude score of a male student teacher was 84, which is above average (Appendix P). The lowest male's score was 53 which is low. In contrast to those scores, the highest score of a female student (105) was the highest score possible for the test. There were no low scores registered by the female participants. The lowest female score of 61 is considered in the below average range (Appendix P). It appears that the female student teacher may have a more positive attitude toward teaching reading in the content area, although the difference was not statistically significant at the .05 level. Since the t -test did not indicate a significant difference at $p < .05$, Hypothesis 2 is accepted.

Locale of Student Teaching. Hypothesis 3 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers placed in an urban classroom after they have completed their student teaching. Twice as many students taught in a suburban setting as in an

urban setting. In comparing the scores of the suburban and urban groups, both scores are in the high attitude range. The suburban group has the highest individual score, but the urban group has a higher mean score. The difference was not significant at the .05 level; therefore, Hypothesis 3 was accepted. Based on this data, the location of student teaching assignment does not seem to make a difference in the attitude of the student teacher.

College Reading Courses. The fourth hypothesis stated that there will be no significant difference in the attitude toward teaching reading in the content classroom between the student teachers who have had at least one course in reading and the student teachers who have had no courses in reading after they have completed their student teaching experience. The groups were nearly equal in size ($N_1 = 24$, $N_2 = 22$). Although the highest attitude scores were the same, the group who had the college reading courses registered the lowest attitude score. It appears, however, that this group with college reading courses has a tendency toward a more positive attitude toward teaching reading in the content classroom, for their mean score was higher. The computed value of t was 0.75058 with 44 degrees of freedom. Thus, the

experience with children. As in the content area assignment, the groups were very unequal. Those students who had little experience with children represented 17 percent of the respondents in the study. In comparing the mean score, the group who had more than one year's experience with children had a higher mean score. This mean score of 80.3 is on the upper end of the average scale (Appendix P). The students with little or no experiences had a mean score of 76.1, which is approximately in the middle of the average range. There seems to be a tendency of the students with prior field experiences to have a more positive attitude toward teaching reading in the content classroom, based on the higher mean score of that group. However, the difference is not significant at the .05 level and Hypothesis 6 is accepted. Previous experiences with children do not seem to significantly affect the attitude of student teachers toward teaching reading in the content area classroom.

Age of the Student Teacher. Hypothesis 7 stated that there will be no significant difference in the attitude toward teaching reading in the content area classroom between the student teachers who are under 25 years of age and the student teachers who are 25 years of age and

over. The number of respondents in each group was approximately the same. Although the difference was not significant at the .05 level of significance, the tendency appears to be that student teachers who are 25 years old or older have a higher attitude toward teaching reading in the content classroom than the student teachers who are under 25 years of age. The mean score of the older group was 81.3, which is interpreted as an above average attitude (Appendix P); the mean score of the younger group was 78.0, which is an average attitude. The t -value at -1.02031 was not significant at the .05 level. Hypothesis 7 is accepted based on the data presented in the study.

Cooperating Teachers' Attitudes. The last hypothesis considered in this study stated that there will be no significant difference in the relationship between the attitudes toward teaching reading in the content area classroom of the student and the cooperating teachers before and after the student teaching experience. The difference between the two correlation coefficients r_1 and r_2 was not significant at the .05 level of significance. Based on this data, the cooperating teachers' attitudes toward teaching reading in the content classroom seem to have little or no effect on the student teachers' attitude toward teaching reading in the content classroom. The

cooperating teachers' posttest scores might be predicted by the pretest scores because the means are very close. This tendency is substantiated by Ferguson (1971), when he stated $H_0: p_1 = p_2 = 0$ (p. 170). The z value is within the bounds of that null hypothesis. It appears from this data that cooperating teachers' attitudes toward teaching reading in the content area were relatively set and that the experience of having a student teacher did not change the cooperating teachers' attitude. Neither were the data significant enough to support the fact that the cooperating teachers influenced student teachers. Therefore, Hypothesis 8 is accepted.

Implications

Data collected from this study seem to indicate that the college students entering their student teaching have already established their attitudes toward teaching reading in the content area classroom. It also appears that they have little influence on their cooperating teachers. The student teaching experience did not appear to affect a change on that attitude. The only variable that seemed to indicate some significant difference ($p < .10$) was the sex of the student teacher. Females appear to have a more positive attitude toward teaching reading in the content

area classroom than male student teachers. These findings are in agreement with Land (1971). It would appear that all other variables in the study had little or no effect on the attitude toward teaching reading in the content area.

These overall findings seem to support the research of Campbell & Williamson (1978), Scherer (1979), and Price (1971), who reported that the student teaching experience seemed to have little or no effect on changing attitudes of teacher education candidates. Previous research has not established a trend showing that student teaching experiences or the variables named in this study affected a change in attitude because there are mixed results from the various studies. Earlier studies (Wiggins, 1969; Dewald, 1970), as well as later studies (Bitner, 1975; Folkert, 1978), indicate that student teaching does cause changes in general attitudes of student teachers. In addition to the mixed findings found in research for a general attitude change after the student teaching experience, there are also mixed findings in the research concerning an attitude change toward reading after the student teaching experience. However, two studies (Terwilliger, 1968; Scherer, 1979) indicate that the

student teaching experience does not affect the attitude toward reading of student teachers. Because findings are mixed, further research is needed before definite conclusions can be reached.

If there were a statistically significant change in attitude toward teaching reading in the content area classroom, but it was not indicated by the research done in this study, certain factors may have caused the change not to be noted. Vaughan's instrument may not have been sensitive enough to detect a change in attitude. There were only fifteen questions to which the respondent could reply on the questionnaire. There may be other areas in content area reading that could be addressed on a questionnaire that Vaughan did not address. There was also criticism of his instrument as being too negative (Edwards, 1979). Perhaps individuals would have a difficult time in responding to an instrument which was considered to be negative in nature.

Another reason that this attitude change might not have been detected was that the population involved might have been too small and from too confined an area of the United States. A population from a cross-section of the United States perhaps would give a broader area in which there might be different ideologies toward teaching reading in the

content area classroom. A larger population would perhaps give additional data which would either accept or reject the given hypotheses.

A third reason may have been the time of year in which the study was made. At the beginning of the Fall semester in which these student teachers were questioned, the year had just begun. The secondary students had not yet established their patterns by which they would learn the information presented to them. By the Spring semester the secondary students have probably established that pattern of learning. The student teachers might be able to ascertain if these patterns were good for assimilating the information or if the patterns could be improved.

Fourth, the time allowed for answering the pretest may have contaminated the results because it overlapped the beginning of the student teaching experience. Perhaps if the questionnaire had been sent and returned before the semester of the student teaching, the results might have been different.

However, if the attitude toward teaching reading in the content area classroom is already set, as the study seems to indicate, the student teaching experience cannot be expected to change that attitude. If the teacher

education program desires to create a more positive attitude toward teaching reading in the content classroom, then these attitudes must be encouraged through the educational activities in which the student is involved during college training. For example, the student teacher candidates can be taught techniques of teaching which will aid their future students to glean main idea from a reading selection. They can be taught techniques of spotting definitions within the text of the assignment. They can be taught the strategy of note taking. These examples are but three of the many teaching strategies than can be used by secondary teachers in order to improve their students' achievement levels and all three of these strategies are reading strategies.

Recommendations

Analysis of the data has resulted in the following recommendations:

1. Further research needs to be undertaken using another instrument to see if another instrument would be more sensitive to the attitude change. Edwards (1979) has identified two other instruments, Flanagan and Smith-Otto, which are reading attitude questionnaires.

2. Further research needs to be undertaken using a larger population in the study with sampling being taken from various sections of the country. The large population will allow for a more complete sampling of ideas from more universities across the nation. In being confined to one area the ideas tend to be similar.
3. Further research needs to be undertaken using samples taken from both Spring and Fall semester groups of student teachers. The student teachers would see the secondary students involved in the learning process at a different time and this timing might have an affect on the student teachers' attitude toward teaching reading in the content classroom.
4. Further research needs to be undertaken using samples taken over several years and comparisons made of the samples to see if the trend is a continuing trend. One study, taken from a small populace, at a particular time, does not present enough continuing data to come to any definite conclusions. Only with continuing research can the conclusions be supported in order to show that a definite trend has been established.

5. The pretest for the student teachers needs to be administered before student teaching begins rather than allowing any contamination of results by the first two weeks of student teaching. Any contact with students in a learning situation may tend to change the attitude of the student teacher as he comes in contact with secondary school students. Therefore, without being involved in the program of the secondary student at all, even though it may just be observation, the student teacher is able to respond to his questionnaire without being influenced by the student teaching experience.
6. If teacher education programs want to create a more positive attitude toward teaching reading in the content classroom, they could develop a program similar to Dupuis and Askov (1978) which fostered and encouraged a more positive attitude toward teaching reading in the content area. Also, Dupuis and Askov developed study strategies which aided the content area teachers in teaching reading strategies to their students. In giving teacher education candidates sample materials from which to work and in helping them develop

strategies for teaching, these activities might create a more positive attitude toward teaching reading in the content area classroom.

Appendices

Appendix A
TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
Box 23029, TWU STATION

Dear _____:

Marilyn Hurd is a graduate student at Texas Woman's University. The purpose of this letter is to request a list of your secondary student teachers for the Fall semester of 1980. This list will assist her in conducting a research project to determine the effect of the student teaching experience upon student teacher attitudes toward teaching reading in the content area classroom.

The survey will be conducted in two phases. The first phase will be completed before the students begin their student teaching in the classroom. The second phase will be completed immediately following the conclusion of the student teaching experience.

The respondents will be chosen at random from a master list of student teachers who will be doing their student teaching during the Fall semester of 1980. They will be mailed a questionnaire designed to measure attitudes toward reading in the content area classroom. Responses to the questionnaire are designed to be short and will not take time from the students as they are involved in their student teaching. At no time will they be interviewed or have any personal contact with the project director.

All responses will be confidential and the data will be used solely for research purposes. Results will be available upon request.

Your assistance is vital to the successful completion of the project. If possible we would like to have the list containing the names and addresses of your secondary students admitted to your Fall, 1980 Student Teaching Program at your earliest convenience. We are enclosing a self-addressed, stamped envelope for your convenience.

Sincerely,

Marilyn J. Hurd
Marilyn J. Hurd
Project Director

Kathleen Jongsma
Kathleen Jongsma
University Sponsor

Appendix B
TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Recently I requested from you a list of the names and addresses of secondary student teachers for the Fall semester, 1980. Student teachers from the _____ area are to be the population from which samples will be randomly selected. The students will be questioned concerning their attitudes toward teaching reading in the content area classroom both before and after their student teaching experience. This data will be used in my thesis at Texas Woman's University.

All responses will be confidential and the data will be used solely for research purposes. Results will be available upon request.

Your assistance is vital to the successful completion of the project. If possible I would like to have the list containing the names and addresses of the secondary students admitted to your Fall, 1980 Student Teaching Program by August 14, 1980.

Recently my husband has taken a position at Grand Canyon College in Phoenix. Therefore, I am asking you to send the information to the following address:

c/o Dr. Joe Clayton Hurd
Grand Canyon College
3300 West Camelback Road
Phoenix, AZ 85017

Thank you for your time and effort.

Sincerely,

Marilyn J. Hurd

Marilyn J. Hurd

Appendix C
TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear _____:

Marilyn Hurd is a graduate student at Texas Woman's University. The purpose of this letter is to request your permission in allowing her to question a selected group of secondary teachers concerning their attitudes toward teaching reading in the content area classroom. The study which she is conducting is to determine the effect of the student teaching experience upon student teacher attitudes toward teaching reading in the content area classroom. One of the variables to be considered in the study is the attitude that the cooperating teacher has toward teaching reading in the content area classroom. Therefore, the group of teachers who will be participating in the research project are those teachers who are designated by local colleges and universities as cooperating teachers for their student teachers.

The questionnaire will be mailed to the teachers during the Fall semester of 1980. They will be asked to give their responses to a short questionnaire concerning their attitudes toward teaching reading in the content area classroom. This instrument should take no time from their classroom teaching responsibilities. At no time will they be interviewed by or have any personal contact with the project director. All responses will be confidential and the data will be used solely for research purposes.

Your assistance is vital to the successful completion of this project. We appreciate your consideration of this matter. Enclosed is a consent form which gives Marilyn permission to administer the questionnaire to a selected group of teachers from your district. If your district is willing to participate, please fill out the form and return it to us at your earliest convenience.

Sincerely,

Marilyn J. Hurd

Marilyn J. Hurd
Project Director

Kathleen Jongsma

Kathleen Jongsma
University Sponsor

Appendix D

SCHOOL DISTRICT CONSENT FORM

I have read the description of the study and have asked any or all questions relating to the philosophy and methodology of the study. I hereby authorize Marilyn Hurd to submit questionnaires to selected cooperating teachers who are employed in the _____ School District.

I understand that the information is to be used for educational and research purposes and that no names of participants or school districts will be used in the release of the data.

I further understand that no medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

Authorized signature

Date

Appendix E
TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Recently I contacted your school district requesting permission to question certain cooperating teachers concerning their attitudes toward teaching reading in the content area classroom. Enclosed was a very brief description of the study and a permission slip allowing me to question cooperating teachers in your district. At this time I have received no correspondence from your district in regards to my request. If you need further information concerning the study in order to make a decision, please contact me immediately.

As the information which I gain from your district is vital to the success of the study, I would appreciate your immediate response concerning the request. I must have all permission slips by August 3, 1980, in order to proceed with my study.

Thank you for your time and your consideration in this matter.

Most sincerely,



Marilyn J. Hurd
Project Director

Appendix F
TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear _____:

I am currently enrolled as a graduate student at Texas Woman's University. As a part of my course of studies, I am conducting a study of attitudes of student teachers in the _____ area toward teaching reading in the content classroom. Therefore, I am asking your assistance in this study.

This study is a two-part survey. The first section is to be completed before you begin your actual student teaching experience. The second part is to be completed immediately following your student teaching. The initial survey is a list of statements to which you are to respond based on your feelings toward each item. Complete directions for response are found at the top of the instrument.

If you are willing to participate in this study, please fill out the consent form, the student teacher information form, and the initial part of the survey. Please return these items by the time that you begin your student teaching experience. After completing the instrument, please fold so that the postage is visible and place in the mail.

The second part of the survey will be mailed to you following your student teaching experience. Those responses are to be returned immediately.

All responses will be confidential and the data will be used solely for research purposes. Results will be available upon request. If you have questions at any time concerning the survey, feel free to contact me. My address is:

Box 1183
Glendale, AZ 85311

Your assistance is vital to the successful completion of the project. May I express to you my appreciation for your help in this study.

Sincerely,



Marilyn J. Hurd
Project Director

Appendix H
TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear _____:

Marilyn Hurd is a graduate student at Texas Woman's University. As part of her course of studies she is conducting a study of attitudes of student teachers in the _____ area toward teaching reading in the content area classroom.

One of the variables to be considered in the study is the attitude that the cooperating teacher has toward teaching reading in the content area classroom. Because you have been designated as a cooperating teacher by one of the _____ colleges or universities, we are asking your assistance in completing this study.

The questionnaire asks you to respond to each statement based on your feelings toward that item. Complete directions for response will be found on the cover sheet.

If you are willing to participate in this study, please fill out the consent form, the cooperating teacher information form and the questionnaire. Please return these items at your earliest convenience. A self-addressed stamped envelope has been included for your convenience.

All responses will be confidential and the data will be used solely for research purposes. If you have questions at any time concerning the survey, feel free to contact Marilyn by writing to her. Results will be available upon request. Marilyn's address is:

Box 1183
Glendale, AZ 85311

Your assistance is vital to the successful completion of the project. May we express to you our appreciation for your help in this study.

Sincerely,

Marilyn J. Hurd

Marilyn J. Hurd
Project Director

Kathleen Jongsma

Kathleen Jongsma
University Sponsor

10. COLLEGE READING COURSES
(1) Diagnosis (4) Remediation
(2) Practicum (5) Other, please specify
(3) Content Area/Secondary _____

11. READING TEACHING EXPERIENCE
(1) Yes
(2) No

If the answer is no, skip to question #15.

12. YEARS TAUGHT REMEDIAL READING*
(1) None (3) 6-10 years
(2) 1-5 years (4) Above 10 years

13. YEARS TAUGHT CORRECTIVE READING**
(1) None (3) 6-10 years
(2) 1-5 years (4) Above 10 years

14. YEARS TAUGHT ENRICHMENT READING***
(1) None (3) 6-10 years
(2) 1-5 years (4) Above 10 years

15. REQUEST RESULTS OF THIS STUDY .
(1) Yes
(2) No

* Remedial reading is defined as reading taught to a student who is two or more years below grade level with the reading instruction being apart from the regular classroom.

** Corrective reading is defined as reading taught to a student who is approximately one year below grade level with the reading instruction being apart from the regular classroom.

*** Enrichment reading is defined as reading at or above grade level with special placement for challenge.

Appendix J

A SCALE TO MEASURE ATTITUDES TOWARD TEACHING READING IN CONTENT CLASSROOMS

Directions: Appearing below are some statements about reading. Beside each statement is a scale ranging from seven (7) to one (1). The interpretation of the scale is:

- 7 = Strongly Agree
- 6 = Agree
- 5 = Tend to Agree
- 4 = Neutral
- 3 = Tend to Disagree
- 2 = Disagree
- 1 = Strongly Disagree

Consider each statement in relation to your own feelings toward teaching reading in content area classrooms and mark the one response to each statement which reflects your own opinion. Record your response by circling the number which best describes your feelings.

- | | |
|---|---------------|
| 1. A content area teacher is obliged to help students improve their reading ability. | 7 6 5 4 3 2 1 |
| 2. Technical vocabulary should be introduced to students in content classes before they meet those terms in a reading passage. | 7 6 5 4 3 2 1 |
| 3. The primary responsibility of a content teacher should be to impart subject matter knowledge. | 7 6 5 4 3 2 1 |
| 4. Few students can learn all they need to know about how to read in six years of schooling. | 7 6 5 4 3 2 1 |
| 5. The sole responsibility for teaching students how to study should lie with reading teachers. | 7 6 5 4 3 2 1 |
| 6. Knowing how to teach reading in content areas should be required for secondary teaching certification. | 7 6 5 4 3 2 1 |
| 7. Only English teachers should be responsible for teaching reading in secondary schools. | 7 6 5 4 3 2 1 |
| 8. A teacher who wants to improve students' interest in reading should show them that he or she likes to read. | 7 6 5 4 3 2 1 |
| 9. Content teachers should teach content and leave reading instruction to reading teachers. | 7 6 5 4 3 2 1 |
| 10. A content area teacher should be responsible for helping students think on an interpretive level as well as a literal level when they read. | 7 6 5 4 3 2 1 |
| 11. Content area teachers should feel a greater responsibility to the content they teach than to any reading instruction they may be able to provide. | 7 6 5 4 3 2 1 |
| 12. Content area teachers should help students learn to set purposes for reading. | 7 6 5 4 3 2 1 |
| 13. Every content area teacher should teach students how to read material in his or her content specialty. | 7 6 5 4 3 2 1 |
| 14. Reading instruction in secondary schools is a waste of time. | 7 6 5 4 3 2 1 |
| 15. Content area teachers should be familiar with theoretical concepts of the reading process. | 7 6 5 4 3 2 1 |

Appendix K
PARTICIPANT CONSENT FORM

I have read the attached description of this study and an offer has been made to me to answer all questions about the study. I hereby authorize Marilyn Hurd to ask me these questions about my attitudes toward reading in the content area classroom. I will record these responses on a questionnaire form. I understand that the information is to be used for educational and research purposes and that no names will be used in release of the data. I further understand that no medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

Participant's Signature

Date

Appendix L
TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear Student Teachers:

You are now involved in your new experiences of student teaching. I trust that this time is very profitable to you as you seek to attain your goal of teaching. Many of you have returned the information which I requested earlier. May I express my sincerest gratitude for your prompt replies. Some of you have not returned the information. Even though you are already involved in your student teaching experiences, I would ask you to respond to the questionnaires and then return them to me. Your response is vital to the successful completion of my project.

An additional request is this. If you have not returned the information, please include the address of the school in which you are teaching. This information is also necessary.

Again, may I wish to each of you the very best in your teaching experiences. Teaching is truly a great profession! Thank you for your assistance to me in the completion of my project.

Most sincerely,

Marilyn J. Hurd
Marilyn J. Hurd

Appendix M
TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear Cooperating Teachers:

Recently I corresponded with you requesting that you complete an instrument dealing with teaching reading in the content area. I have received responses from many of you and I appreciate your prompt replies.

Because of your pressing schedules, some of you have not been able to complete the information. Responses from all teaching fields in the secondary schools are needed for a valid study. Your response is vital to the completion of my research project. Therefore, I am asking you to complete the data sheet, respond to the questionnaire, read and sign the consent form, and return all information to me immediately.

Again, thank you for the time that you have spent in responding to my request. May this year be an especially rewarding year in teaching for you.

Most sincerely,

Marilyn J. Hurd

Marilyn J. Hurd

Appendix N
TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear Participant:

Thank you for your response to the first part of the study which I am conducting. For the second part of the study you are to respond to the enclosed questionnaire at the conclusion of the student teaching experience. This response is requested from both the student teacher and the cooperating teacher. All responses will be confidential and the data will be used solely for research purposes.

After completing the instrument, please fold it so that the postage is visible and place it in the mail. Results of the study should be available during the Spring semester, 1981.

Again, thank you for your cooperation in responding to the initial part of the study. Your assistance in the final part of the study is vital to the successful completion of the project.

Most sincerely yours,

Marilyn J. Hurd

Marilyn J. Hurd

Appendix O
TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS 76204

COLLEGE OF EDUCATION
DEPARTMENT OF CURRICULUM
AND INSTRUCTION
BOX 23029, TWU STATION

Dear Participant:

Earlier you received a copy of the instrument "A Scale to Measure Attitudes toward Teaching Reading in Content Classrooms" to which you were requested to respond. This response is requested in order to complete the data collection for my research project. I am asking you to respond to this instrument and return it to me immediately. I am enclosing another copy for your convenience.

Again, thank you for your cooperation and your participation in the initial part of the survey. The confidential information which you have provided has been most helpful in the research project which I am conducting.

Most sincerely,

Marilyn J. Hurd

Mrs. Marilyn J. Hurd

Appendix P

Interpretation of Attitude Scores for the Instrument
"A Scale to Measure Attitudes toward Teaching
Reading in Content Classrooms

Range	Attitude
91+	High
81-90	Above Average
71-80	Average
61-70	Below Average
60 and below	Low

Note. From "A Scale to Measure Attitudes toward Teaching Reading in Content Classrooms" by J. L. Vaughan, Jr., Journal of Reading, 1977, 20, 605-609.

Appendix Q

Pre and Posttest Scores of Attitudes toward Teaching Reading in the Content Classroom of Student Teachers and Cooperating Teachers

Student Teachers		Cooperating Teachers	
Pre	Post	Pre	Post
73.00	90.00	74.00	98.00
76.00	89.00	63.00	70.00
87.00	87.00	67.00	70.00
83.00	93.00		
84.00	81.00		
101.00	105.00		
55.00	53.00	66.00	79.00
79.00	80.00	80.00	78.00
88.00	90.00		
76.00	75.00		
72.00	87.00	102.00	99.00
76.00	75.00	65.00	66.00
71.00	78.00		
78.00	76.00	84.00	88.00
81.00	77.00	81.00	73.00
85.00	81.00	77.00	73.00
68.00	76.00	94.00	89.00
75.00	75.00	81.00	74.00

Student Teachers		Cooperating Teachers	
Pre	Post	Pre	Post
89.00	88.00	88.00	88.00
72.00	66.00	81.00	75.00
84.00	76.00		
80.00	84.00	80.00	90.00
75.00	70.00	83.00	73.00
84.00	86.00	82.00	84.00
74.00	65.00	79.00	70.00
68.00	68.00	86.00	89.00
85.00	89.00		
86.00	96.00	80.00	73.00
55.00	68.00		
79.00	67.00		
78.00	76.00		
77.00	84.00		
63.00	69.00		
89.00	79.00	80.00	74.00
93.00	97.00	69.00	57.00
70.00	77.00		
83.00	74.00		
103.00	105.00	70.00	63.00
68.00	70.00		

Student Teachers		Cooperating Teachers	
Pre	Post	Pre	Post
78.00	73.00		
82.00	88.00	97.00	90.00
94.00	87.00	69.00	75.00
72.00	74.00	77.00	83.00
69.00	61.00		
76.00	81.00	71.00	86.00
71.00	76.00		

References

References

- Abartis, C. & Collins, C. The effect of writing instruction and reading methodology upon college students' reading skills. Journal of Reading, 1980, 23, 408-413.
- Bitner, J. L. The influence of inner-city and suburban student teaching upon beginning elementary teachers (Doctoral dissertation, North Texas State University, 1974). Dissertation Abstracts International, 1975, 35, 7763-7764.
- Burmeister, L. Reading strategies for middle and secondary school teachers (2nd ed.). Reading, Mass: Addison-Wesley, 1978.
- Campbell, L. P. & Williamson, J. A. Inner-city schools get more custodial teachers. Clearing House, 1978, 52, 140-141.
- Castek, J. E. Changes in attitude, philosophical views, and knowledge of secondary education during student teaching (Doctoral dissertation, University of Nebraska, 1970). Dissertation Abstracts International, 1970, 31, 1659A.
- Craik, J. & Martin, D. The effect of a presentation on how to underline a text in introductory psychology courses. Journal of Reading, 1980, 23, 404-407.

- Dewald, L. K. A study to determine factors influencing attitude change of student teachers in the elementary school (Doctoral dissertation, University of Houston, 1970). Dissertation Abstracts International, 1970, 31, 2769.
- Dupuis, M. M. & Askov, E. N. Content area differences in attitude toward teaching reading. The High School Journal, 1978, 62, 83-88.
- Edwards, P. A. Have attitude surveys about reading been fair to the secondary teacher? Journal of Reading, 1979, 23, 21-24.
- Evans, C. Attitudes of secondary teachers toward teaching reading and their perceptions of their competencies in reading instruction (Doctoral dissertation, Mississippi State University, 1977). Dissertation Abstracts International, 1978, 38, 4080.
- Flanagan, B. A. A competency-based assessment of secondary teachers' attitudes and perceptions of qualifications in content area reading instruction. (Doctoral dissertation, University of Oregon, 1975). Dissertation Abstracts International, 1976, 36, 6015.
- Ferguson, G. A. Statistical analysis in psychology & education (3rd ed.). New York: McGrawHill, 1971.

- Folkert, L. A. A study of the relationship between early field experiences and student teaching performance at the secondary level (Doctoral dissertation, Michigan State University, 1977). Dissertation Abstracts International, 1978, 39, 236.
- Frank, J. B. Attitude change of secondary school student-teachers during teacher-training (Doctoral dissertation, University of Texas, Austin, 1967) Dissertation Abstracts, 1967, 28, 1717A.
- Gay, L. R. Educational research: Competencies for analysis and application. Columbus, Ohio: Charles E. Merrill Publishing Company, 1976.
- Green, F. The nature of need for the teaching of reading in the secondary content area in the geographic region served by the University of North Alabama (Doctoral dissertation, The University of Alabama, 1977). Dissertation Abstracts International, 1978, 39, 2172.
- Hardy, G. The impact the concerns of cooperating teachers have on the concerns of student teachers (Doctoral dissertation, University of Houston, 1977) Dissertation Abstracts International, 1978, 38, 7279-7280.

- Hargrove, G. W. An investigation of attitudes of secondary teachers toward reading in the content areas as measured by a modified Likert-type scale (Doctoral dissertation, University of South Carolina, 1973). Dissertation Abstracts International, 1974, 34, 5777.
- Herber, H. L. Teaching reading in content areas. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1970.
- Herber, H. L. Teaching reading in content areas (2nd ed.). Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1978.
- Herber, H. L. & Sanders, P. L. (Ed.) Research in reading in the content areas. Syracuse, New York: Reading and Language Arts Center, Syracuse University, 1969.
- Herber, H. L. & Vacca, R. T. (Ed.) Research in reading in the content areas. Syracuse, New York: Reading and Language Arts Center, Syracuse University, 1977.
- Holl, F. B. An analysis of student teaching changes in attitude in relation to attitude held by their supervising teachers (Doctoral dissertation, University of Tennessee, 1967). Dissertation Abstracts, 1967, 29, 168.

- Holmes, R. L. The relationship between selected teacher classroom behavior characteristics of the cooperating teacher and the student teacher (Doctoral dissertation, Columbia University, 1969) Dissertation Abstracts International, 1969, 30, 1897-1898.
- Jackson, J. E. Reading in the secondary schools: A survey of teachers. Journal of Reading, 1979, 23, 229-232.
- Johnson, J. S. Change in student teachers dogmatism. Journal of Educational Research, 1969, 62, 224-226.
- Karmos, A. H. & Jacko, C. M. The role of significant others during the student teaching experience. Journal of Teacher Education, 1977, 28 (5), 51-55.
- Land, M. L. Verbal behavior and attitude change in selected secondary student teachers (Doctoral dissertation, Texas A & M University, 1971). Dissertation Abstracts International, 1972, 32, 5655.
- Mahan, J. M. & Lacefield, W. Educational attitude changes during year-long student teaching. Journal of Experimental Education. 1978, 46 (3), 4-15.

- McCullough, B. The status of the teaching of reading in the content area by content teachers in Florida's secondary schools (Doctoral dissertation, The Florida State University, 1975) Dissertation Abstracts International, 1976, 36, 7916.
- McEwin, T. Attitudinal change of students during methods courses and student teaching (Doctoral dissertation, East Texas State University, 1968). Dissertation Abstracts, 1968, 29, 169-170.
- McGuire, V., Myers, R. & Durrance, C. Your student teaching in the secondary schools. Boston: Allyn & Bacon, Inc., 1959.
- O'Rourke, W. J. Research on the attitude of secondary teachers toward teaching reading in content classrooms. Journal of Reading, 1980, 23, 337-339.
- Phlegar, B. An attitudinal study of teachers and students in content area reading in the community college (Doctoral dissertation, Virginia Polytechnic Institute and State University, 1974) Dissertation Abstracts International, 1975, 35, 7689.

- Price, W. J. A study of the effects of the student teaching experience and the teaching assignment upon the educational attitudes of secondary student teachers at Michigan State University (Doctoral dissertation, Michigan State University, 1971). Dissertation Abstracts International, 1971, 32, 3142.
- Robinson, H. A. Teaching reading and study strategies: The content areas. Boston: Allyn & Bacon, Inc., 1975.
- RSTS/E STAT11 Statistical package. Phoenix, Az: Digital Equipment Corp., 1974.
- Scherer, C. Effects of early field experiences on student teachers' self-concepts and performances. Journal of Experimental Education, 1979, 47 (3), 208-214.
- Schofield, J. L. & Start, K. B. Attitudes toward reading and the teaching of reading in a group of student teachers. Journal of Educational Research, 1977, 70 (5), 247-251.
- Seiforth, B. & Samuel, M. The emergence of early field experiences. Peabody Journal of Education, 1979, 57 (1), 10-16.
- Smith, S. D. & Smith W. D. Teaching the poor: Its effect on student teacher self-concept. Journal of Teacher Education, 1979, 30 (4), 45-49.

- Stratemeyer, F. & Lindsey, M. Working with student teachers. New York: Columbia University, 1958.
- Sughrue, R. An investigation of the effects of an inner-city student teaching experience on the attitudes, values, and dogmas of student teachers (Doctoral dissertation, North Texas State University, 1976). Dissertation Abstracts International, 1977, 37, 2096-2097.
- Terwilliger, P. N. Nature of changes in student teachers' beliefs about teaching reading which occurred during student teaching (Doctoral dissertation, Pennsylvania State University, 1967). Dissertation Abstracts, 1968, 29, 175A.
- Thelen, J. Improving reading in science. Newark, Delaware: International Reading Association, 1976.
- Usova, G. M. Analysis of attitudes toward reading among secondary content-area teachers. Clearing House, 1978, 52, 22-24.
- Vaughan, J. L., Jr. A scale to measure attitudes toward teaching reading in content classrooms. Journal of Reading, 1977, 20, 605-609.

Wiggins, L. L. A study of attitudinal changes of student teachers in agricultural education (Doctoral dissertation, Oklahoma State University, 1968). Dissertation Abstracts International, 1969, 30, 1062.