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THE EFFECT OF AN INSERVICE EDUCATION PROGRAM ON THE ATTITUDES OF TEACHERS OF HUMPHREYS AND HOUSTON COUNTIES TOWARD VOCATIONAL EDUCATION

A Dissertation

Presented for the

Doctor of Education

Degree

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James Albert Slusher

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ABSTRACT

The purpose of this study was to develop and conduct an inservice program in vocational education and measure teacher attitude change toward vocational education. Null hypotheses were formulated and tested to determine the influence of school location, teacher grade level, academic curriculum area, teacher degree level, teaching experience, the effect of additional inservice treatments, the offering of university credit and the school system toward the changing of teacher attitudes.

The population for this study consisted of all teachers of Humphreys and Houston Counties in Tennessee. The population was divided into two treatment groups: Treatment Group I, 156 teachers, and Treatment Group II, 14 teachers. Treatment Group I referred to the teachers who received the regular vocational inservice training. Treatment Group II referred to vocational teachers, guidance counselors, and other teachers who received the regular vocational inservice training plus additional training in vocational education.

An instrument was used to gather attitudinal information. A pilot study was conducted to ascertain the instrument's validity and statistical reliability. Data for this study were collected from the pretest and posttest and tabulated through the use of a SPSS computer program. The Chi Square statistic was used to determine whether significant differences (at the .05 level) existed between the pretest and posttest responses.

On the pretest-posttest comparison, seven of twenty-eight attitudinal statements reflected significant attitudinal change toward vocational education for the teachers in Treatment Group I of Humphreys and Houston Counties.

There was a significant difference in attitude change toward vocational education of the teachers of the schools of Humphreys and Houston Counties. The pretest-posttest comparison reflected significant attitudinal change for five of twenty-eight attitudinal statements.

The pretest-posttest comparison reflected a significant difference in attitudinal change for four of twenty-eight attitudinal statements for the teachers of grade categories 7-9 and 10-12. Significant attitudinal change was not determined for grade categories K-3 and 4-6.

The pretest-posttest comparison reflected a significant difference in attitude change toward vocational education for teachers of the social studies, language arts, math, and science academic curriculum areas. No significant attitudinal change was determined for the teachers in the elementary curriculum area.

On the pretest-posttest comparison, seven of twenty-eight attitudinal statements showed significant attitudinal change for the teachers in the B.S. degree and M.S. degree categories of educational attainment. No significant attitudinal change was calculated for the teachers with less than a B.S. degree or an M.S. degree + 45 hours. The teachers in the B.S. degree category had more significant attitude change than did the teachers in the other degree categories.

Conclusions for the less than B.S. degree and M.S. + 45 hours degree teacher groups were not warranted because of the small cell size.

The pretest-posttest comparison reflected a significant difference in attitude change toward vocational education for the teachers in the 0-3, 4-6, 16-25, and over 25 years categories of years of teaching experience. No significant differences were found for the categories 7-10 and 11-15 years teaching experience. The teachers' years of teaching experience did not appear to affect attitude change.

The pretest-posttest comparison reflected a significant change in teacher attitude toward vocational education for three of twenty-eight attitudinal statements for Treatment Group I and two of twenty-eight attitudinal statements for teachers in Treatment Group II. Because positive attitude change was shown by both groups it could not be concluded that the extra inservice training received by Treatment Group II was an influencing factor in attitude change.

The pretest-posttest comparison revealed that the teachers registered for university credit showed a greater positive attitude change toward vocational education than those not registered. It was concluded that the registering for university credit, based on the findings, may bring about additional attitudinal change in an inservice program.

The pretest-posttest comparison indicated that the teachers of Humphreys County experienced greater significant attitude change than did the teachers of Houston County. Because of two of

twenty-eight attitudinal statements were significant by county comparison, concrete conclusions were difficult to make.

The main conclusion of the study was that the inservice education program did change the attitudes of the teachers of Humphreys and Houston Counties. It was recommended that a model be developed from this study to be used by other school systems for implementing the provisions of the Comprehensive Vocational Education Act passed by the 1973 Tennessee General Assembly.

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CHAPTER I

INTRODUCTION

The lifetime teaching certificate awarded teachers can no longer be justified as sufficient in our educational system. Teachers must update skills and competencies that are learned either on the job or in the classroom. Many methods have been devised by which administrators encourage teachers to update their skills in inservice education. Historically, inservice evolved to correct the shortcomings of pre-service education. Then, as pre-service training developed into college preparation, the function of inservice education shifted to training and retraining the teacher as a means of keeping pace with the most recent innovations in education, science, and technology.

Teachers in public school systems of Tennessee must be prepared to implement the Comprehensive Vocational Education Act passed by the 1973 General Assembly. The state must fulfill the aims and purposes of the Act by providing facilities for vocational education for at least 50 percent of all high school students in grades 9 through 12. Counseling and pre-vocational courses shall be made available by 1975 to all students in grades seven and eight. The provisions of the Act are to be fully implemented by the beginning of the school year 1977.

It is necessary that all teachers in a school system be prepared for such a venture in vocational education. One method of preparing all teachers for the implementation of the 1973 Comprehensive Vocational Education Act is through an inservice program which will convey the aims and objectives of vocational education and its place in the total educational program. Not only will vocational teachers and guidance counselors be involved, but all teachers in a school system should have a proper attitude toward vocational education.

The Comprehensive Vocational Act's provisions will help to cause far reaching changes in school curriculum and instruction not only for teachers of grades 9 through 12, but also for teachers of elementary and junior high school.

For many teachers the introduction of vocational education into the curriculum in the proportions provided for by the Comprehensive Vocational Act will require that they become familiar with the aims and objectives of vocational education. Inservice education is one answer to the need for classroom teachers to become acquainted with vocational programs and philosophies.

I. IMPORTANCE OF THE STUDY

If a pilot project can be successfully conducted to orient and prepare teachers for implementing a vocational education program according to the provisions of the 1973 Comprehensive Vocational Education Act, then similar programs can be conducted using resources and methods developed in the project. If school systems in Tennessee

are to take advantage of opportunties offered by this legislation, it is necessary that plans be instituted to develop the proper attitude towards vocational education and furnish supplemental training for teachers who will be either directly or indirectly involved in conducting vocational programs.

II. THE PROBLEM

Statement of the Problem

The 1973 Comprehensive Vocational Act of Tennessee will bring about vast changes in the public school curriculums in Tennessee. There is a need for teachers to prepare for these changes attitudinally. An inservice education program designed to change teacher attitude toward vocational education is one method that can be used in preparing teachers for the implementation of the Act.

Purpose of the Problem

The purpose of the study was to develop and conduct an inservice training program in vocational education and to measure teacher attitudes toward vocational education of all teachers in Humphreys and Houston Counties. It was also the purpose of this study to determine what influence was made by the teacher's school location, the grade level taught, the academic curriculum area, the educational attainment, previous teaching experience, additional inservice treatments, the attainment of university credit and the school system of the teacher to attitudinal change. From this program a model could be developed and used

by other school systems for implementing the provisions of the Comprehensive Vocational Education Act passed by the 1973 General Assembly.

III. STATEMENT OF THE HYPOTHESES

The major research hypothesis for this study is that there was a significant change in attitude toward the aims and purposes of vocational education among teachers of Humphreys and Houston Counties.

Stated in null form for the purpose of statistical analysis, the following hypotheses were tested at the .05 level of significance:

HO_1: There is no significant difference in attitude toward vocational education of the teachers of Humphreys and Houston counties as measured by attitudinal statements seven through thirty-four.

HO_2: There is no significant difference in attitude change toward vocational education of the teachers of the schools of Humphreys and Houston counties as measured by attitudinal inventory statements seven through thirty-four.

HO_3: There is no significant difference in attitude change toward vocational education of the teachers in each grade category (K-3, 4-6, 7-9, 10-12) as measured by attitudinal inventory statements seven through thirty-four.

HO_4: There is no significant difference in attitude change toward vocational education of teachers of the various categories of academic curriculum areas as measured by attitudinal inventory statements seven through thirty-four.

HO_5: There is no significant difference in attitude change

toward vocational education for teachers in each category of educational attainment as measured by attitudinal inventory statement seven through thirty-four.

HO_6: There is no significant difference in attitude change toward vocational education in each category of years of teaching experience as measured by attitudinal statements seven through thirty-four.

HO_7: There is no significant difference in attitude toward vocational education among Treatment Group I when compared to Treatment Group II as measured by attitudinal inventory statements seven through thirty-four.

HO_8: There is no significant difference in attitude toward vocational education for those teachers registered for university credit hours and those teachers not registered as measured by attitudinal inventory statements seven through thirty-four.

HO_9: There is no significant difference in attitude toward vocational education between the teachers of Humphreys County and the teachers of Houston County as measured by attitudinal inventory statements seven through thirty-four.

IV. DELIMITATIONS

1. This study was restricted to the teachers of Humphreys and Houston Counties, Tennessee. School administrators, supervisors, and para-professional personnel were not included.

2. The vocational inservice program for Humphreys and Houston

Counties was conducted during the time period August, 1974, through May 1975.

V. LIMITATIONS

The inherent nature of the school systems involved in this study may limit the applicability of the results and conclusions.

VI. ASSUMPTIONS

1. The teachers involved in this study are open to attitude change and formation. There has been no overt or covert actions by any individuals or groups (other than in the study) to prejudice the attitudes of the teachers involved in this study toward vocational education.

2. Inservice teacher education does lead to teacher change and that change can take place in the attitude domain.

VII. DEFINITIONS OF TERMS USED

Attitude. An underlying disposition which enters, along with other influences, into the determination of a variety of behaviors toward an object or class of objects, including statements of beliefs and feelings about the object and approach-avoidance actions with respect to it (Summers, 1970).

Credit Group. The term used to identify the teachers who opted to register for university credit during the inservice program.

Inservice Education. The continuing education of a person

who has previously developed the basic competencies required for entry into a teaching position (Evans and Terry, 1971).

Instrument. The term used to describe the pre/post test used in this study. The instrument is titled Attitudinal Inventory Relative to Vocational Education.

Jury of Specialists. Twenty staff members from the Vocational-Technical Education Department of the University of Tennessee used to aid in the validation of the instrument used in this study.

Non-Credit Group. The term used to identify the teachers who chose not to register for university credit during the inservice program.

Pilot Study. The procedure used in this study to validate and establish statistical reliability of the instrument.

Treatment Group I. Refers to the teachers who received the regular vocational inservice training.

Treatment Group II. Refers to vocational teachers, guidance counselors, and other teachers who received the regular vocational in-service training plus additional training in vocational education.

1973 Comprehensive Vocational Education Act. A vocational act passed by the 1973 Tennessee General Assembly with the objective of making vocational programs accessible to all high school students, furnishing facilities, and serving at least fifty percent of the students

in grades nine through twelve. Guidance counseling will aslo be provided in grades seven and eight.

VIII. ORGANIZATION OF THE STUDY

The study was organized in five chapters. Included is a complete bibliography and a set of appendices pertinent to the study.

Chapter I contains an introduction to the study, importance of the study, statement of the problem, purpose of the study, statement of the hypotheses, delimitations, limitations, assumptions, definitions of terms used, and organization of the study.

Chapter II presents a review of literature and related research.

Chapter III includes the methodology used in the study. Also included in this chapter is an explanation of the instrument used, validation and reliability of the instrument, identification of the population, the treatment used, and the method of data collection and analysis used in the study.

Chapter IV contains the presentation and discussion of the data collected in the study.

Chapter V presents a summary of the findings of the study, conclusions from the findings, and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

The chapter reviews literature pertinent to the area of teacher inservice and its role in the changing of teacher attitudes. In order to better carry out the changing curriculum called for in the 1973 Comprehensive Vocational Education Act of Tennessee, teachers must prepare themselves with new attitudes toward vocational education. The study of related research was carried out to determine whether teacher attitudes can be changed and what inservice methods might be most effective.

I. THE REVIEW

Summers (1970) defined attitude as "an underlying disposition which enters, along with other influences, into the determination of a variety of behaviors toward an object or class of objects, including statements of beliefs and feelings about the object and approach-avoidance actions with respect to it"; "the sum total of a man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats, and convictions about any specified topic" (Thurston, 1970). The present study was undertaken to determine whether an inservice program could change teachers' attitudes toward vocational education in the public school system. The 1973 Comprehensive Vocational Education Act mandates that vocational education be offered to 50 percent of the students in grades nine through twelve in Tennessee.

Guidance counseling and pre-vocational courses will also be provided in grades seven and eight. Therefore, it is imperative that the classroom teacher accept the vocational education philosophies and programs: "The teachers in the classrooms are the ones who will determine whether recommended changes in education are implemented or dropped" (Gohn, 1969).

Halloran (1967) describes an attitude as being an individual's state of readiness to perceive objects and people around him in his own way. Attitudes are learned, developed, and organized through an individual's unique experiences. These may be direct experiences with objects and situations, explicit and implicit knowledge gained from other people, and the social-psychological orientation of personality development. The attainment of attitudes can also be brought about by the normal socialization process and contact with different kinds of groups.

"We take for granted that people's attitudes are subject to change" (Thurstone, 1970). Individuals are ever-changing, not static. A complete about-face change would not be extraordinary.

The measuring of attitudes may be accomplished by an individual's acceptance or rejection of opinions (Thurston, 1970). Thurstone further states that attitude scales should be used only in "those situations that offer a minimum of pressure on the attitude to be measured." We must fully realize that the subject may be "consciously hiding his true attitude or that the social pressure of the situation has made him really believe what he expresses," he continues. Holloran

(1967) indicates that attitudes are not measured directly, but rather are deduced from other observable data, such as the behavior of the individual.

"It is possible to change attitudes" (Halloran, 1967). For many teachers of Humphreys and Houston Counties, the introduction of vocational education into the curriculum in the proportions provided for by the Comprehensive Vocational Education Act will require that they become familiar with the aims and objectives of vocational education, (Bohn, 1969). White, Raun and Butts (1967) state that inservice is one answer for the need to acquaint classroom teachers with new programs and philosophies, agreeing with Crabtree and Hughes (1969). "Inservice education becomes essential when one considers changes resulting from the knowledge explosion, development of new concepts and methods, ever-increasing mobility of teachers, up-dated certification requirements, developments in educational media, and additional knowledge about the learner and learning process." Inservice education, according to Greene (1971) benefits both the experienced and the novice teacher to keep abreast of increasing knowledge and developments. Further, inservice can provide for teacher change as Jacobsen (1973) relates, "Inservice education is a planned process for influencing teacher behavior with the intent of changing or modifying conditions and instructional practices. . . ." More specific to the present study is a statement by Keilholtz (1973): "Although idealistic, it seems that inservice education can achieve the goal of changing the traditional curriculum to one that effectively incorporates the concepts of career development by changing the attitudes of educators." Inservice

education also seems to be the answer to the need stated by Burton (1974): "Learning which involves attitudinal change and the widening of interests is a slow process, in need of consolidation; there can be no instant conversions."

A study conducted in 1967 by Butts and Raun attempted to determine factors which may contribute to a change in attitude among science teachers. Teachers participating in the study were all involved in the same curriculum program, Science--A Process Approach, and also used this method in their classroom. The Semantic Differential with 12 sets of polar words was administered as a pretest and posttest. Comparison of the testing indicated that two factors did contribute to a change in attitude: primary grade level teachers showed a positive change in attitude while intermediate level teachers did not; and those teachers who had previous science education courses also showed a positive change. Two other factors did not show a significant change: location of the school and previous years of teaching experience. A major conclusion by Butts and Raun was that "a more positive attitude of teachers toward the innovation is expected to result from the increased knowledge of the program" which proves the value of inservice.

A study conducted by White, Raun and Butts (1967) among science teachers compared three methods of inservice: a weekly 3 hour college credit course, a pre-school week-long workshop with follow-up visits by the consultant, and a released-time program of eleven half-day sessions throughout the school year. All groups received instruction in the new curriculum, Science--A Process Approach. The greatest gain

in attitude change as measured by the Semantic Differential was for those teachers in the released-time group, indicating, perhaps, that a more gradual increase in science competence is more conducive to a greater gain in teacher attitude. On the whole, a teacher inservice program "does appear to contribute to change in the teacher's competence in science and attitude for the curriculum innovation."

Another study among science teachers was conducted by Zurhellen and Johnson, (1972). The theory behind their program was that decision making by administrators will not accomplish educational change, but involving teachers in designed activities should change their outlooks, perceptions and attitudes toward a curricular change in science. Instruments used at intervals to measure attitudes were the Minnesota Teacher Attitude Inventory, the Teaching Situation Reaction Test, a Perceived Problems Inventory, and Semantic Differential Scales. A conclusion was drawn about the type of inservice program: "A series of short, concentrated training sessions at intervals throughout the year might benefit change more than lengthier programs with regularly scheduled class-meetings."

Martin, (1974), conducted a study among trainees employed by federally-supported day care centers. The program content was designed to modify the behaviors, and thereby the attitudes, of the trainees toward the students with whom they work. The thought behind the study was that attitude would improve from pretest to posttest as a result of changed behavior. Under supervision, the subjects observed desirable behaviors on videotape and then placed their observations

and learnings into practice. The training procedure also involved lectures, group discussions, written materials and assignments. The experiment proved successful: "The results of the attitude survey present evidence for verbal behavior, or attitude, change accompanying the other behavior changes recorded."

Not only do studies in teacher attitude indicate that attitudes can be changed, but also that there may be preferred types of in-service programs. A study was made by Black (1969) to determine whether there would be any significant attitude change among vocational educators toward research after attending a 3-week long workshop. There were 16 participants who were administered a pre- and post-attitude test consisting of 40 statements with which they were to agree, disagree, or mark no opinion. The tabulated results showed there was a significant attitude change in only two of the 40 statements. The researcher felt the sample may not have been large enough to result in such a small percentage of significance. However, the workshop experience was responsible for the rise in mean scores for the statements.

A study by Burrichter (1968) was conducted to determine the attitudes of elementary public school teachers and administrators toward education as a lifelong process. A second facet of the study was the attempt to isolate, test, and change adult attitudes to encompass new concepts. Of the 455 elementary school personnel in Laramie and Albany Counties who completed a tested adult attitude scale, 88 were selected for the experimental study. Forty-one of these selected educational personnel completed the experiment. The Albany

County teachers, 12 in number, attended two sessions featuring films, lectures and small group discussions. The 29 members from Laramie County received the same information through the mail. Both methods proved to be significantly effective on changing total scores about tested concepts, but neither showed greater effectiveness than the other. A significantly greater change in total scores was found in the Albany County method of small group discussion than in the Laramie County method of mailed information.

Rhyne (1968) produced a study to determine the degree of attitude change in relation to various factors, one of which was a group learning method, among 70 teachers and counselors. Eight weeks were set aside for an institute on problems of school desegregation. The participants enrolled in courses which consisted of lectures, discussions, demonstrations, and assigned readings in social and behavioral problems in race relations. They lived at the school where the experiment took place in order to work with the 160 underachieving integrated boys who were enrolled in the summer term. The results were the attitudes of the subjects changed in the predicted direction as related to participation in the institute. Findings indicate that adult educators should continue to design inservice programs which attempt to change attitudes, but also to consider individual levels of attitude in the design.

A study was conducted by Keith (1969) to attempt to evaluate the effectiveness and enduring effects of a training program which exposed participants to sensitivity training, information about the

disadvantaged and tried to aid the members to become more effective and open in their jobs. A control group and experimental group were involved with the experimental group receiving instruction in two ten day sessions. The programs consisted of lectures, site visitations, audio-visual information and sensitivity training from different instructors. A pretest and posttest were administered, along with the same test two months after the posttest. There was very little significant change in the test group and judges felt the experimental group members did not become more open and effective in their jobs as had been predicted. These results indicate that this short-term training institute did not achieve the objectives set forth. The author indicated a need to experiment with and evaluate short term programs in order to achieve attitudinal change. Also, the third testing revealed that the lack of change continued; therefore, the endurance facet was disproved.

The studies presented seem to indicate that inservice programs can help to promote a change in teacher attitude. Reese and Orr (1971) emphasize the need to "develop a system of teacher education that recognizes not only individual differences but individual needs of teachers at the time when they are most acute." Jacobsen (1973) said teacher educators must be ready to study negative attitude and hostility toward change, identify attitudes of individuals, prepare special inservice programs and study the change and effect of the inservice.

Suggestions for inservice by various writers have been advanced. Bohn (1969) feels that a variety of inservice formats should

be utilized to produce maximum effectiveness. Brimm and Tollett (1974) state that teachers prefer individualized inservice activities that are relevant to their classroom performance. The teachers' needs must be determined and "an effort should be made to implement programs which present concepts and develop skills transferable to the problems of daily classroom life and school operations." Stillwell (1969) further states the value of individualized inservice: 1) teachers are free to choose from available subjects; 2) teachers may use materials at their leisure; 3) there is continuous activity as long as the materials are constantly circulating and changing; 4) instruction need not be confined to any certain topic.

Inservice has been shown to be of value in changing teacher attitudes. The year-long program which focuses on the individual teacher's needs will be probably most effective in carrying through maximum change. "Educators should accept the challenge to develop whatever programs are necessary to achieve the objectives of improving the teacher's instructional capabilities and to design the structures and lines of communication which will expedite this primary achievement," (Wolansky, 1969).

II. SUMMARY

Attitudes, formed through experience and relationships with others, can be changed. Inservice education is one vehicle to promote attitudinal change necessary in the rapidly changing knowledge explosion in vocational education. The time spent on vocational education

in the public school is increasing and will continue to, especially with the passage of the 1973 Tennessee Comprehensive Vocational Education Act. The literature indicates that a successful inservice program can change teacher attitudes in a positive direction. The studies also show that specific inservice methods can be more effective than others and should be considered carefully by those desiring to institute an inservice program with the intent of changing teacher attitudes.

CHAPTER III

METHODOLOGY

Chapter III presents the process used to develop the pretest and posttest, description of the inservice program, and the statistical technique used to analyze the data from the pretest and posttest.

I. THE INSTRUMENT

Although many instruments are in existence which measure teacher attitudes, none were suitable for this study. Therefore, an instrument was designed specifically for this study. The instrument developed for this study has been titled Attitudinal Inventory Relative to Vocational Education. A pilot study was conducted to ascertain the instrument's validity and statistical reliability.

II. VALIDATION OF THE INSTRUMENT

A list of statements pertaining to attitudes about vocational education was prepared. A jury of specialists composed of twenty staff members from the Vocational-Technical Education Department of the University of Tennessee was asked to either agree, disagree, or give an undecided mark to each statement. It was also requested that they make any desired comments that might improve a statement. Each statement had to have at least eighty percent consensus from the panel of experts before it could be accepted for use in the instrument. All

the twenty-eight statements in the trial instrument were acceptable, although some were reworded as suggested by comments made by members of the panel of experts.

III. RELIABILITY OF THE INSTRUMENT

To establish the statistical reliability of the instrument, twenty-six present or former vocational-technical education students from the University of Tennessee were asked to complete the instrument. They were asked to either strongly agree, agree, disagree, or strongly disagree with each statement as it appeared on the instrument. The students' responses were then subjected to statistical analysis.

The statistical method used to estimate internal consistency reliability was Winer's analysis of variance. By using this statistical method, an item reliability coefficient of .85 was computed.

Another statistical technique used to estimate instrument internal consistency reliability was the Cronbach Alpha. A reliability of .85 was computed using this method. A computer program was used for Winer's analysis of variance and the Cronbach Alpha.

IV. POPULATION

The population for the study consisted of all the teachers of Humphreys and Houston Counties in Tennessee. These counties participated in a joint vocational program according to provisions of the Comprehensive Vocational Education Act.

Humphreys County has moved in recent years from an agricultural

based economy to an industrial economy. Houston County has a predominately agricultural economy. There were 200 teachers in the two school systems (146 in Humphreys County and 54 in Houston County). Inservice training was given to the teachers to develop the proper attitude toward vocational education and to prepare them to function as teachers in a school system dedicated to meeting the needs of all pupils. The teachers participating in the inservice program were referred to as Treatment Group I. Additional training was given to guidance counselors and vocational teachers in Humphreys and Houston Counties to further prepare them for tasks in implementing the Comprehensive Vocational Education Act. They were referred in the study to as Treatment Group II.

V. TREATMENTS

The inservice program was designed as a pilot project to evaluate the results of intensive training in vocational-technical education given to all teachers in Humphreys and Houston Counties.

The inservice program began in August 1974, and ended in May, 1975. A list of consultants used in the project are listed in Appendix F. The following schedule of activities was used in conducting the inservice program:

August 19, 1974	Treatment Group I and II
	A. Introduction of Inservice Program Treatment Group I and II

B. Administration of Pretest:
Attitudinal Inventory Relative to
Vocational Education

August 23, 1974

Treatment Group I and II

A. Vocational Comprehensive Education Act: Its Impact and Implications (9:00 - 10:00 a.m.)

Treatment Group I and II

B. Introduction to Vocational Education (10:00 a.m. - 11:30 a.m.)

August 26, 1974

Treatment Group I and II

A. Local Needs, Opportunities, and Projections (9:00 a.m. - 12:00 p.m.)

Treatment Group I and II

B. Introduction to Career Education (1:00 p.m. - 3:00 p.m.)

August 27, 1974

Treatment Group I and II

A. On-Site Visits to Local Businesses and Industries (9:00 a.m. - 12:00 p.m.)

Treatment Group I and II

B. Sanll group discussions of on-site visits (1:00 p.m. - 2:00 p.m.)

Treatment Group I and II

C. Employment Security Office - Presentation of local job opportunities (2:00 p.m. - 3:00 p.m.)

November 11, 1974

Treatment Group I and II

A. Two hours - All teachers of Humphreys County: Presentation on Vocational Guidance Counseling

November 12, 1974

Treatment Group I and II

A. Two hours - All teachers of Houston County: Presentation on Vocational Guidance Counseling

Treatment Group II

B. At Waverly Central High School, a two hour presentation to vocational teachers: Tennessee Research Coordinating Unit

February 3, 1975

Treatment Group I and II

A. Two hours - All teachers of Humphreys County - a presentation: Girls in Vocational Education

Treatment Group II

B. At Waverly Central High School, a two hour session for vocational teachers:

1. Class presentations
2. Presentation: Coordination of Vocational Programs

3. Presentation: Area Vocational-Technical Schools

February 4, 1975

Treatment Group I and II

A. Two hours - All teachers of Houston County - a presentation: Girls in Vocational Education

April 7, 1975

Treatment Group I and II

A. Two hours - All teachers of Humphreys County:

1. Administration of Posttest
2. Presentation: The Instructional Development System and Its Role in Curriculum Development

Treatment Group II

B. At Waverly Central High School, a two hour session for vocational teachers:

1. Class presentations
2. Movie: Future Shock

April 8, 1975

Treatment Group I and II

A. Two hours - All teachers of Houston County:

1. Administration of Posttest
2. Presentation: The Instructional Development System and

Its Role in Curriculum

Development

May 5, 1975 Treatment Group II

A. At Waverly Central High School, a two hour session for vocational teachers:

1. Class presentations
2. Evaluation

Three hours of university credit could be obtained through the inservice program. Grades for this course were by contract with each teacher designating the level at which he wished to perform (Appendix D).

An additional three hours of university credit was offered to the vocational teachers and guidance counselors in separate inservice training sessions- Due to the interest of teachers other than vocational or guidance counselors, any teacher who desired was allowed to register for this class. The teachers who enrolled in the separate inservice training sessions were referred to as Treatment Group II in the study.

The vocational inservice project was a Tennessee State Department of Education funded project. The summary and results of the project are contained in another publication which will be distributed to all school districts in the state in late 1975.

VI. METHOD OF DATA COLLECTION AND ANALYSIS

The data for this study were collected from the pretest and post-

test. The pretest was administered to all teachers at the beginning of the project and the posttest to all teachers at the end.

In order to test the null hypotheses, the pretest and posttest scores were compared to test for statistical differences. The data, pretest and posttest, were grouped and analyzed through the use of Statistical Package for the Social Sciences (SPSS). The SPSS program was used to analyze the demographic and attitudinal data. The program provided a frequency count and percentages for both the demographic and attitudinal data. The Chi Square statistic test was then applied to determine the relationship of pretest-posttest by demographic category for HO_1 - HO_6 and pretest-pretest and posttest-posttest for HO_7 - HO_9. The Chi Square statistic was used to determine if the difference in frequency distribution was significantly different from the frequency distribution that might be expected to occur by chance. For tables containing only two categories of agreement and fewer than twenty-one cases, Fisher's Exact Test was applied.

VII. SUMMARY

The procedures used in the study were discussed in Chapter III. Methods used in the instrument development and pilot study were described. A discription of the population and the treatments used in the study were given. The method used to analyze data from the pre-test and posttest was explained.

CHAPTER IV

DATA ANALYSES

I. INTRODUCTION

The data analyses chapter contains the background information in the study, the demographic data of Humphreys and Houston Counties schools and the analysis of HO_1-HO_9.

Background Information

The population of this study consisted of all the teachers of Humphreys County and Houston County, Tennessee. These counties were selected because of an indicated willingness from the school administration and teachers to prepare for the implementation of the 1973 Comprehensive Vocational Education Act.

Humphreys County, at the beginning of the school year 1974-75, employed 146 teachers and Houston County employed 54 teachers for a total of 200 teachers. Of the 200 teachers 170 completed both the pretest (administered August 19, 1974) and the posttest (administered April 7, 8, and 9, 1975). The pretest was administered to 191 teachers and the posttest to 198 teachers. Of 191 pretests administered, 21 were not usable because of missing names, failure to take posttest, teachers on sick leave, leaves of absences, and teachers no longer in the school system. Of 198 posttests administered, 28 had to be discarded because of missing pretests. A comparable match of 170 pretests and posttests was achieved. Data analysis was based on 170 matches.

For analytical purposes, attitudinal inventory items seven through thirty-four were examined and tested for significance. This was done by individual items in sequential order by HO_1 through HO_9. Treatment Group I was analyzed by HO_1 through HO_9.

Treatment Group II was analyzed by HO_7. Accumulative attitudinal responses for Treatment Group I may be found in Appendix A.

For simplicity of discussion null hypotheses will be referred to by number. A complete list of null hypotheses may be found on pages 4 and 5.

Demographic Data

Humphreys County is composed of five schools and Houston County has three schools. Table 1 shows the number of teachers and percentages for these schools.

Treatment Group I had a total of 156 participants. Of this, 16 teachers, 10.3 percent were from Lakeview Elementary, 19 teachers, 12.1 percent were from Waverly Central High School, 19 teachers, 12.2 percent were from Waverly Elementary, 27 teachers, 17.3 percent were from Waverly Junior High School, 25 teachers, 16.0 percent were from McEwen Elementary and High School, 16 teachers, 10.3 percent were from Houston County High School, 9 teachers, 5.8 percent were from Tennessee Ridge Elementary and 25 teachers, 16.0 percent were teachers at Erin Elementary.

Treatment Group II had 14 participants. Teacher count and percentages by school were: 3 teachers, 21.5 percent from Lakeview Elementary, 7 teachers, 50.0 percent from Waverly Central High School, 1 teacher, 7.0 percent from Waverly Junior High School, and 3

TABLE 1

Participants by Schools*

School	Participants	Percent of Total
Treatment Group I		
Lakeview Elementary	16	10.3
Waverly Central High School	19	12.1
Waverly Elementary	19	12.2
Waverly Junior High School	27	17.3
McEwen Elementary & High School	25	16.0
Houston County High School	16	10.3
Tennessee Ridge Elementary	9	5.8
Erin Elementary	25	16.0
Total	156	100.0
Treatment Group II		
Lakeview Elementary	3	21.5
Waverly Central High School	7	50.0
Waverly Elementary	0	0.0
Waverly Junior High School	1	7.0
McEwen Elementary & High School	0	0.0
Houston County High School	3	21.5
Tennessee Ridge Elementary	0	0.0
Erin Elementary	0	0.0
Total	14	100.0

*N = 170

teachers, 21.5 percent from Houston County High School.

Table 2 shows the number and percent of participants by grade level. In treatment Group I, grade level K-3 had the largest number of teachers, with 56 which was 35.9 percent of the total, following was grade level 4-6 with 32 teachers, 20.5 percent, grade level 7-9 with 30 teachers, 19.2 percent, and grade level 10-12 with 38 teachers, 24.4 percent.

In Treatment Group II there was one teacher, 7.1 percent for grade levels K-3, two teachers, 14.3 percent for grade levels 4-6, two teachers, 14.3 percent for grade levels 7-9, and nine teachers, 64.3 percent for grade levels 10-12.

In Treatment Group I, the teachers in subject category Elementary had the largest number of participants with a total of 76 for 48.7 percent. The Social Studies Category had 13 teachers for 8.3 percent, Language Arts had 18 teachers for 11.5 percent, Math had 12 teachers for 7.7 percent, Science had 5 teachers for 3.3 percent and the other subject category had 32 teachers for 20.5 percent of the total of Treatment Group I (Table 3).

Treatment Group II by Subject Category had 3 teachers, 21.4 percent in Elementary, 1 teacher, 7.1 percent in Social Studies, 1 teacher, 7.1 percent in Language Arts, 3 teachers, 21.4 percent in Science, and 6 teachers, 43.0 percent of the other subject category.

TABLE 2

Participants by Teaching Grade Level*

Grade Level	Participants	Percent of Total
Treatment Group I		
K-3	56	35.9
4-6	32	20.5
7-9	30	19.2
10-12	38	24.4
	Total 156	100.0
Treatment Group II		
K-3	1	7.1
4-6	2	14.3
7-9	2	14.3
10-12	9	64.3
	Total 14	100.0

*N = 170

TABLE 3

Participants by Subject Category*

Subject Category	Participants	Percent of Total
Treatment Group I		
Elementary	76	48.7
Social Studies	13	8.3
Language Arts	18	11.5
Math	12	7.7
Science	5	3.3
Other	32	20.5
Total	156	100.0
Treatment Group II		
Elementary	3	21.4
Social Studies	1	7.1
Language Arts	1	7.1
Math	0	0.0
Science	3	21.4
Other	6	43.0
Total	14	100.0

*N = 170

Table 4 categories the teachers by the level of education attained. The majority of teachers in Treatment Group I held the B.S. degree. Of the total, 109 teachers, 69.9 percent were in the B.S. degree category. There were 32 teachers, 20.5 percent with an M.S. degree. There were 9 teachers, 5.8 percent with less than a B.S. degree and 6 teachers, 3.8 percent with a M.S. degree plus 45 hours.

In Treatment Group II 6 teachers, 42.9 percent held the B.S. degree, 6 teachers, 42.9 percent had M.S. degrees, and 2 teachers had a M.S. plus 45 hours.

Table 5 reflects the years of teaching experience of the participants. For Treatment Group I the largest number of teachers had 0-3 years, 27.6 percent of the total, of teaching experience. There were 27 teachers, 17.3 percent, with 4-6 years of teaching experience, 21 teachers, 13.5 percent, with 7-10 years of teaching experience, 24 teachers, 15.4 percent, 16-25 years of teaching experience and 22 teachers, 14.0 percent, with 25 years or more teaching experience.

Treatment Group II had 2 teachers, 14.3 percent with 0-3 years of teaching experience, 2 teachers, 14.3 percent with 4-6 years of teaching experience, 4 teachers, 28.5 percent with 7-10 years of teaching experience, 2 teachers, 14.3 percent with 11-15 years of teaching experience, 14.3 percent with 16-25 years of teaching experience and 2 teachers, 14.3 percent with over 25 years of teaching experience.

Table 6 shows the participants by county. For Treatment

TABLE 4

Educational Level of Participants*

Educational Level	Participants	Percent of Total
Treatment Group I		
Less than B.S.	9	5.8
B.S.	109	69.9
M.S.	32	20.5
M.S. + 45	6	3.8
Total	156	100.0
Treatment Group II		
Less than B.S.	0	0.0
B.S.	6	42.9
M.S.	6	42.9
M.S. + 45	2	14.2
Total	14	100.0

*N = 170

TABLE 5

Participants Years of Teaching Experience*

Years of Teaching Experience	Participants	Percent of Total
Treatment Group I		
0-3	43	27.6
4-6	27	17.3
7-10	21	13.5
11-15	19	12.2
16-25	24	15.4
+ 25	22	14.0
Total	156	100.0
Treatment Group II		
0-3	2	14.3
4-6	2	14.3
7-10	4	28.5
11-15	2	14.3
16-25	2	14.3
+ 25	2	14.3
Total	14	100.0

*N = 170

TABLE 6

Participants by County*

County	Number of Participants	Percent of Total
Treatment Group I		
Humphreys	106	68.0
Houston	50	32.0
Total	156	Total 100.0
Treatment Group II		
Humphreys	11	78.6
Houston	3	21.4
Total	14	Total 100.0

*N = 170

Group I, 106 teachers, 68.0 percent, were from Humphreys County and 50 teachers, 32.0 percent, were from Houston County.

Of the 14 participants in Treatment Group II, 11 teachers, 78.6 percent were from Humphreys County and 3 teachers, 21.4 percent, were from Houston County.

The teachers in Treatment Group I were allowed to register and receive university credit for inservice activities. There were 13 teachers, 8.3 percent that opted to receive credit and 143 teachers or 91.7 percent did not (Table 7).

Attitudinal Data

Each null hypothesis was analyzed by attitudinal statements seven through thirty-four. Levels of significance were reported for each attitudinal statement. Only those attitudinal statements that were significant at the .05 level were discussed. A complete list of attitudinal inventory statements may be found in Appendix A.

HO_1

There is no significant difference in attitude change toward vocational education of the teachers of Humphreys and Houston Counties as measured by attitudinal inventory statements seven through thirty-four.

Attitudinal statements 8, 9, 10, 12, 24, and 33 were significant at the .05 level (Table 8). The remaining attitudinal statements were not significant at the .05 level. The significance levels for all

TABLE 7

Participants by Credit and Non-Credit*

Credit	Number of Participants	Percent of Total
Treatment Group I		
Credit	13	8.3
Non-credit	143	91.7
Total	156	100.0

*N = 156

TABLE 8

HO_1: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance*

Statement Number	Level of Significance
7	0.7260
8	0.0231**
9	0.0024**
10	0.0052**
11	0.2247
12	0.0331**
13	0.6740
14	0.1635
15	0.1385
16	0.1107
17	0.3655
18	0.3153
19	0.6952
20	0.2182
21	0.9376
22	0.3093
23	0.4938
24	0.0124**
25	0.9384
26	0.1327
27	0.1066
28	0.3636
29	0.0819
30	0.0793
31	0.2174
32	0.2518
33	0.0115**
34	0.2007
Total 28	

*N = 156

**Significant at the .05 level.

attitudinal statements are listed in Table 8. (The percentages for the pretest to posttest comparison are in Appendix A.)

There were 156 total responses on both the pretest and posttest for attitudinal statement 8. On the pretest 3.8 percent of the teachers agreed, 57.1 percent disagreed, and 39.1 percent strongly disagreed. On the posttest, the teachers responded in the following percentages: 52.6 percent disagreed and 47.4 percent strongly disagreed. There were no strongly agreed responses on the posttest for attitudinal statement 8. There was significance (at the .05 level, Chi Square = 7.5384 w/2 df) between the pretest and posttest for the teachers in Treatment Group I (Table 9).

For attitudinal statement 9 there were 156 responses on both the pretest and posttest. On the pretest, 30.1 percent strongly agreed, 62.2 percent agreed and 7.7 percent disagreed. On the posttest 44.2 percent strongly agreed, 54.5 percent agreed, and 1.3 percent disagreed. No responses were recorded on the pretest or posttest for the strongly disagreed category. Attitudinal statement 9 was significant at the .05 level (Chi Square = 12.10648 w/2 df) for the teachers in Treatment Group I (Table 10).

There were 156 total teacher responses on both the pretest and posttest for attitudinal statement 10. For the pretest, 0.6 percent strongly agreed, 17.3 percent agreed, 68.6 percent disagreed, and 13.5 percent strongly disagreed. On the posttest, 0.6 percent strongly agreed, 9.0 percent agreed, 62.2 percent disagreed and 28.5 percent strongly disagreed. There was significance (at the .05 level, Chi Square =

TABLE 9

Attitudinal Responses For Attitudinal Statement Eight: The Primary Responsibility of High Schools Should be to Prepare Students For College*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	3.8	57.1	39.1	100.0
Posttest	0.0	52.6	47.4	100.0

*N = 156

TABLE 10

Attitudinal Responses For Attitudinal Statement Nine: Vocational Education Should Enhance the Aims of the Total School Program*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	30.1	62.2	7.7	100.0
Posttest	44.2	54.5	1.3	100.0

*N = 156

4.36436 with 3 df) for attitudinal statement 10 between the pretest and posttest (Table 11).

On the pretest, the teachers responded to attitudinal statement 12 in the following percentages: 0.7 percent strongly agreed, 7.7 percent agreed, 62.8 percent disagreed and 28.8 percent strongly disagreed. On the posttest, no responses were recorded for the strongly agreed category, 1.3 percent agreed, 69.9 percent disagreed, and 28.8 percent strongly disagreed. There was significance (at the .05 level, Chi Square = 8.72740 with 3 df) for attitudinal statement 12 (Table 12).

For attitudinal statement 24, the teachers responded on the pretest in the following percentages: 40.5 percent agreed, 54.9 percent disagreed, and 4.6 percent strongly disagreed. On the posttest, 3.9 percent strongly agreed, 50.3 percent agreed, 40.6 percent disagreed, and 5.2 percent strongly disagreed. Significance (at the .05 level, Chi Square = 10.88270 with 3 df) was found between the pretest and posttest for attitudinal statement 24 (Table 13). Attitudes tended to change to the agreement categories on the posttest.

On the pretest for attitudinal statement 33 the following percentages were calculated: 13.0 percent strongly agreed, 73.9 percent agreed, and 13.1 percent disagreed. On the posttest the percentages changed to 25.0 percent strongly agreed, 67.9 percent agreed, and 7.1 percent disagreed. Significance (at the .05 level, Chi Square = 8.92699 with 2 df) was found between the pretest and posttest for attitudinal statement 33 (Table 14). Attitudes tended

TABLE 11

Attitudinal Responses For Attitudinal Statement Ten: Vocational Education to Prepare For Job Entry Skills Would be More Appropriate For High School Programs*

Time of Test	Percent Strongly	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.6	17.3	68.6	13.5	100.0
Posttest	0.6	9.0	62.2	28.2	100.0

*N = 156

TABLE 12

Attitudinal Responses For Attitudinal Statement Twelve: Vocational Programs Should be Conducted Primarily For the Low Academic Achievers*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.7	7.7	62.8	28.8	100.0
Posttest	0.0	1.3	69.9	28.8	100.0

*N = 156

TABLE 13

Attitudinal Responses For Attitudinal Statement Twenty-Four: There is a Difference in the Aims and Objectives of Vocational Education Compared to Career Education*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.0	40.5	54.9	4.6	100.0
Posttest	3.9	50.3	40.6	5.2	100.0

*N = 156

TABLE 14

Attitudinal Responses For Attitudinal Statement Thirty-Three: All Students in School Should Receive Some Training in Career Education*

Time of Test	Percent Strongly Disagree	Percent Agree	Percent Disagree	Total Percent
Pretest	13.0	73.9	13.1	100.0
Posttest	25.0	67.9	7.1	100.0

*N = 156

to shift from the disagreed to agreed categories.

HO_2

There is no significant difference in attitude change toward vocational education of the teachers of the schools of Humphreys and Houston Counties as measured by attitudinal inventory statements seven through thirty-four.

There are 8 schools in Humphreys and Houston Counties, 5 in Humphreys County and 3 in Houston County. The schools were Lakeview Elementary, Waverly Central High School, Waverly Elementary, Waverly Junior High School, McEwen Elementary and High School, Houston County High School, Tennessee Ridge Elementary, and Erin Elementary.

On the posttest to posttest comparison the following schools with corresponding attitudinal statements had significant differences at the .05 level: Waverly Central High School, Statement 30; Waverly Junior High School, Statements 14 and 24; Houston County High School, Statement 23; and Erin Elementary, Statement 22 (Table 8, see page 39). The significance level (Pretest-Posttest comparison) of all attitudinal statements may be found in Table 15. The percentages (pretest and posttests) for all attitudinal statements are listed in Appendix A.

The teachers of Waverly Junior High responded to attitudinal statement 14 on the pretest with the following percentages: 7.4 percent strongly agreed, 88.9 percent agreed and 3.7 percent disagreed. On the posttest they responded with 37.0 percent strongly agreed and

TABLE 15

HO_2: By Attitudinal Statement Seven Through Thirty-Four With Level of Significance by Schools*

Statement Number	Schools and Level of Significance							
	Lakeview Elementary	Waverly Central High School	Waverly Elementary	Waverly Junior High School	McEwen Elementary and High School	Houston County High School	Tennessee Ridge Elementary	Erin Elementary
7	1.0000	0.6101	0.8266	0.4402	0.9591	0.2457	0.2087	0.3569
8	0.2636	0.7425	0.3243	0.2544	0.7757	0.1834	0.5000	0.5437
9	0.1893	0.1462	0.2865	0.3406	0.5527	0.1079	0.5000	0.6077
10	0.3442	0.5580	0.4405	0.1530	0.1745	0.0914	0.4451	0.4134
11	0.1564	0.1120	0.1192	0.5164	0.6812	0.4283	0.8807	0.8245
12	0.3114	0.4875	0.2195	0.4403	0.8179	1.0000	0.7176	0.1116
13	0.6831	0.5589	0.3394	0.5049	0.6129	0.1929	0.1029	0.3172
14	0.5954	0.3303	0.3748	0.0232**	0.5533	0.5908	0.5866	0.4838
15	1.0000	0.3243	1.0000	0.5587	0.5724	0.3359	0.2794	0.1037
16	0.4780	0.3425	0.1947	0.2098	0.9316	0.8283	0.1981	0.4014
17	1.0000	0.9416	1.0000	0.5423	0.5385	0.6831	0.2158	0.9186
18	1.0000	0.7251	0.4405	0.6122	0.2246	0.3114	0.5000	0.4753
19	0.7167	0.1717	0.8945	0.4867	0.4099	0.7744	1.0000	0.6881
20	0.7138	0.2601	0.6729	0.7745	0.1801	0.2940	0.3679	0.6025
21	0.5930	0.9366	0.7801	0.3054	0.4666	0.2934	0.2882	0.3370
22	0.1573	0.4846	0.0736	0.2508	0.7870	0.8007	0.8145	0.0155**
23	0.4622	0.8829	0.1229	0.8669	0.3796	0.0409**	0.5836	0.4990
24	0.5223	0.3911	0.5357	0.0256**	0.3366	0.5738	0.7003	0.3674

TABLE 15 (continued)

Statement Number	Schools and Level of Significance							
	Lakeview Elementary	Waverly Central High School	Waverly Elementary	Waverly Junior High School	McEwen Elementary and High School	Houston County High School	Tennessee Ridge Elementary	Erin Elementary
25	1.0000	0.5357	0.4103	0.7733	0.5371	0.7150	0.5000	0.4373
26	0.4317	0.5908	0.5608	0.5820	1.0000	0.3884	0.3540	0.3666
27	1.0000	0.4945	0.0583	0.1384	0.9952	0.1071	0.7395	0.5539
28	0.7237	0.5357	1.0000	0.3721	0.5716	0.7216	0.3185	0.5495
29	0.3406	0.5202	0.0554	0.2737	0.4750	0.7907	0.1578	0.5111
30	0.3924	0.0386**	0.3774	0.4403	0.9339	0.6331	0.5866	0.5310
31	0.2526	0.3449	0.7425	0.5954	0.4699	1.0000	0.3189	0.5545
32	0.3611	0.2636	1.0000	0.5191	0.6997	0.3084	0.5389	0.5968
33	0.5616	0.7282	0.8869	0.0631	0.4707	0.2138	0.5000	0.1716
34	0.7029	0.9458	0.1163	0.1934	0.3481	0.5223	0.5796	0.7757
Total 28								

*N = 156

**Significant at the .05 level

63.0 percent agreed. There were no disagree responses on the post-test. A significant difference (at the .05 level, Chi Square = 7.52845 with 2 df) for attitudinal statement 30 was found between the pretest and posttest administered to Waverly Junior High School teachers (Table 16).

For attitudinal statement 22 significance (at the .05 level, Chi Square = 10.39047 with 3 df) was found between the pretest and posttest administered to Erin Elementary teachers. On the pretest, the teachers responded in the following percentages: 32.0 percent agreed, 36.0 percent disagreed and 32.0 percent strongly disagreed. On the posttest, 4.0 percent strongly agreed, 52.0 percent agreed and 44.0 percent disagreed (Table 17). For attitudinal statement 22 the Erin Elementary teachers tended to shift their attitudes to the agreement categories.

For attitudinal statement 23, Houston County High School teachers responded on the pretest with 31.2 percent agreed, 62.5 disagreed, and 6.3 strongly disagreed. On the posttest, they responded to the same statement with 81.2 percent disagreed and 18.8 percent strongly disagreed. No responses were recorded on the posttest for the agree category. Attitudinal statement 23 was significant (at the .05 level, Chi Square = 6.39130 with 2 df) for Houston County High School teachers (Table 18).

Waverly Junior High School teachers responded to attitudinal statement 24 on the pretest with the following percentages: 30.8 percent agreed, 65.4 percent disagreed and 3.8 percent strongly disagreed.

TABLE 16

Attitudinal Responses of Waverly Junior High School Teachers to Attitudinal Statement Fourteen: All Students Should Have the Opportunity to Enroll in A High School Vocational Program of Their Interest*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	7.4	88.9	3.7	100.0
Posttest	37.0	63.0	0.0	100.0

*N = 27

TABLE 17

Attitudinal Responses of Erin Elementary Teachers to Attitudinal Statement Twenty-Two: All High School Students Should be Required to Enroll in at Least One Vocational Course*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.0	32.0	36.0	32.0	100.0
Posttest	4.0	52.0	44.0	0.0	100.0

*N = 25

TABLE 18

Attitudinal Responses of Houston County High School Teachers to Statement Twenty-Three: Vocational Programs in High School Should be Directed Toward Teaching Vocational Skills and Attitudes From the Classroom Leaving the Obtaining of Occupational Experience by the Student to the Time That the Student Completes School and is Actually Employed on the Job*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	31.2	62.5	6.3	100.0
Posttest	0.0	81.2	18.8	100.0

*N = 16

On the posttest 11.6 percent strongly agreed, 57.7 percent agreed, 26.9 percent disagreed and 3.8 percent strongly disagreed. On the pre-test-posttest comparison a significant difference (at the .05 level, Chi Square = 9.29710 with 3 df) was found for attitudinal statement 24 completed by Waverly Junior High School Teachers (Table 19).

The responses of Waverly Central High School teachers to attitudinal statement 30 on the pretest were: 35.3 percent strongly agreed, 35.3 percent agreed and 29.4 percent disagreed. On the posttest the percentages changed to 47.4 percent strongly agreed and 52.6 percent agreed. No disagreed responses were found on the posttest. On the pretest-posttest comparison attitudinal statement 30 was significant (at the .05 level, Chi Square = 6.50898 with 2 df) for Waverly Central High School teachers (Table 20). Their responses changed from the disagreed category to the agreed categories.

HO_3

There is no significant difference in attitude change toward vocational education of the teachers in each grade category (K-3, 4-6, 7-9, 10-12) as measured by attitudinal inventory statements seven through thirty-four.

For comparison purposes the grade levels of the Humphreys and Houston County School system were grouped in 4 categories, K-3, 4-6, 7-9 and 10-12.

In testing HO_3 (pretest-posttest comparison) the following grade categories and corresponding attitudinal statements had significant

TABLE 19

Attitudinal Responses of Waverly Junior High School Teachers to Attitudinal Statement Twenty-Four: There is a Difference in the Aims and Objectives of Vocational Education Compared to Career Education*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.0	30.8	65.4	3.8	100.0
Posttest	11.6	57.7	26.9	3.8	100.0

*N = 27

TABLE 20

Attitudinal Responses of Waverly Central High School Teachers to Attitudinal Statement Thirty: Children in K-8 Should Become Aware of Different Occupations and Oriented to the World of Work*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	35.3	35.3	29.4	100.0
Posttest	47.4	52.6	0.0	100.0

*N = 19

differences at the .05 level: 7-9, statement 10; and 10-12 statements 9, 10, and 30. The significance level (pretests and posttests) for all attitudinal statements may be found in Table 21. The percentages (pretests and posttests) for all attitudinal statements are listed in Appendix A.

In response to attitudinal statement 9 on the pretest the teachers in grade category 10-12 responded with the following percentages: 21.1 percent strongly agreed, 68.4 percent agreed, and 10.5 percent disagreed. On the posttest in response to the same statement, 50.0 percent strongly agreed and 50.0 percent agreed. There were no responses in the disagree category on the posttest. Attitudinal statement 9 was significant (at the .05 level, Chi Square = 9.57037 with 2 df) for the teachers of grade category 10-12 on the pretest-posttest comparison (Table 22).

When responding to attitudinal statement 10 on the pretest, the teachers in grade category 7-9 had percentages of 23.4 percent agreed, 63.3 percent disagreed, and 13.3 percent strongly disagreed. On the posttest 3.3 percent strongly agreed, 70.0 percent disagreed and 26.7 strongly disagreed. A significant difference (at the .05 level, Chi Square = 9.43333 with 3 df) between the pretest and post-test was found for attitudinal statement 10 for grade category 7-9 (Table 23). On the posttest almost all responses were in the disagree categories.

Attitudinal statement 10 was also significant (at the .05 level, Chi Square = 7.84365 with 3 df) for grade category 10-12

TABLE 21

HO_3: Attitudinal Statement Seven Through Thirty-Four With Levels of Significance by Grade Category*

Statement Number	Grade Categories and Levels of Significance			
	K-3	4-6	7-9	10-12
7	0.5892	0.3189	0.6857	0.8150
8	0.2779	0.5984	0.5923	0.1506
9	0.3790	0.1098	0.5945	0.0084**
10	0.1741	0.3515	0.0241**	0.0494**
11	0.3004	0.7232	0.7786	0.2178
12	0.3542	0.3533	0.1167	0.5908
13	0.1291	0.2226	0.5540	0.2331
14	0.5551	0.4280	0.5836	0.3208
15	0.5841	0.5409	0.5616	0.2267
16	0.1284	0.5971	0.8302	0.6268
17	0.7059	0.3998	0.8646	0.8634
18	0.2466	0.5529	0.3408	0.4580
19	0.4021	0.7249	0.6629	0.1450
20	0.6722	0.9899	0.5828	0.1280
21	0.5513	0.3071	0.9394	0.5537
22	0.5133	0.1823	0.2071	0.4699
23	0.1268	0.7144	0.5258	0.1684
24	0.2509	0.4331	0.3061	0.3384
25	0.5715	0.7763	0.4821	0.5962
26	0.2700	0.7963	0.2083	0.9726
27	0.4352	0.2508	0.4991	0.5879
28	0.5780	0.3152	0.4900	0.5112
29	0.5857	0.1049	0.4442	0.6101
30	0.6800	0.6233	0.6576	0.0508**
31	0.7961	0.4083	0.2061	0.4104
32	0.2294	0.5299	0.3203	0.2202
33	0.5908	0.0688	0.1253	0.4322
34	0.0647	0.8011	0.5593	0.6265
Total 28				

*N = 156

**Significant at the .05 level

TABLE 22

Attitudinal Responses of Grade Category 10-12 Teachers to Attitudinal Statement Nine: Vocational Education Should Enhance the Aims of the Total School Program*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	21.1	68.4	10.5	100.0
Posttest	50.0	50.0	0.0	100.0

*N = 38

TABLE 23

Attitudinal Responses of Grade Category 7-9 Teachers to Attitudinal Statement Ten: Vocational Education to Prepare for Job Entry Skills Would be More Appropriate For Post High School Programs

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.0	23.4	63.3	13.3	100.0
Posttest	3.3	0.0	70.0	26.7	100.0

*N = 30

teachers on the pretest-posttest comparison (Table 24). The pretest had 2.7 percent strongly agreed, 28.9 percent agreed, 60.5 percent disagreed and 7.9 percent strongly disagreed. On the posttest: 13.2 percent agreed, 57.9 percent disagreed and 28.9 percent strongly disagreed. There were no strongly agreed responses on the posttest. The posttest reflected a shift in attitude to the disagreed categories for attitudinal statement 10.

Attitudinal statement 30 was significant (at the .05 level, Chi Square = 5.9806 with 2 df) for teachers of grade category 10-12 on the pretest-posttest comparison (Table 25). The following percentages were computed on the pretest: 18.9 percent strongly agreed, 56.8 percent agreed, and 24.3 percent disagreed. The percentages on the posttest changed to 31.6 percent strongly agreed, 63.1 percent agreed, and 5.3 percent disagreed. The disagreed category declined in percentage on the posttest.

HO_4

There is no significant difference in attitude change toward vocational education of teachers of the various categories of academic curriculum areas as measured by attitudinal inventory statements seven through thirty-four.

For pretest-posttest comparisons of HO_4, the academic curriculum areas were grouped into the following categories: elementary, social studies, language arts, math, science and other.

In testing HO_4, (pretest-posttest comparison) the following

TABLE 24

Attitudinal Responses of Grade Category 10-12 Teachers to Attitudinal Statement Ten: Vocational Education to Prepare For Job Entry Skills Would be More Appropriate For High School Programs

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	2.7	28.9	60.5	7.9	100.0
Posttest	0.0	13.2	57.9	28.9	100.0

*N = 38

TABLE 25

Attitudinal Responses of Grade Category 10-12 Teachers to Attitudinal Statement Thirty: Children in K-8 Should Become Aware of Different Occupations to the World of Work*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	18.9	56.8	24.3	100.0
Posttest	31.6	63.1	5.3	100.0

*N = 38

academic curriculum areas and corresponding attitudinal statements had significant differences at the .05 level: social studies, statement 23; language arts, statements 15 and 18; math, statements 10 and 13; and science, statement 12. The significance levels (pretest-posttest comparison) of all attitudinal statements may be found in Table 26. The percentages (pretests and posttests) for all attitudinal statements are listed in Appendix A.

In response to attitudinal statement 10 on the pretest the teachers in the academic curriculum area of math had 25.0 percent agreed and 75.0 percent disagreed. On the posttest they responded with 41.7 percent disagreed and 58.0 percent strongly disagreed. Attitudinal statement 10 was significant (at the .05 level, Chi Square = 11.14286 with 2 df) for the teachers of academic curriculum area of math on the pretest-posttest comparison (Table 27).

On the pretest, the teachers of the academic curriculum area of science responded to attitudinal statement 12 in the following percentages: 20.0 percent agreed, 20.0 percent disagreed, and 60.0 percent strongly disagreed. On the posttest the responses were all in the disagree category. There were no responses in the agree or strongly disagree categories on the posttest. Attitudinal statement 12 was significant (at the .05 level, Chi Square = 6.66667 with 2 df) for the teachers of science on the pretest-posttest comparison (Tabel 28).

Attitudinal statement 13 was significant (at the .05 level, Chi Square = 4.04210 with 1 df) on the pretest-posttest comparison for the teachers in the curriculum area of math (Table 29). On the

TABLE 26

HO_4: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance by Subject Categories*

Statement Number	Subject Categories and Levels of Significance					
	Elementary	Social Studies	Language Arts	Math	Science	Other
7	0.6093	0.5724	0.5270	0.3513	0.5488	0.6616
8	0.5096	0.4272	0.2391	0.6374	0.5000	0.2065
9	0.0560	0.1833	0.2741	0.2207	0.5000	0.7396
10	0.1178	0.2699	0.1561	0.0038**	0.2619	0.7155
11	0.4142	0.6295	0.5846	0.1712	0.5134	0.5132
12	0.3401	0.5647	0.1353	0.3583	0.0357**	0.4104
13	0.6321	0.2837	1.0000	0.0444**	0.5134	0.6811
14	0.5775	1.0000	0.1637	0.2207	0.5000	0.6001
15	0.4989	0.0934	0.0145**	0.5647	0.7381	0.7107
16	0.0674	0.3329	0.7729	0.5488	0.5000	0.8385
17	0.2146	0.5908	0.7098	0.5647	0.5647	0.5827
18	0.6428	0.7177	0.0522**	0.5839	0.7778	0.3218
19	0.7408	0.6453	0.1818	1.0000	0.5000	0.4386
20	0.7688	0.6869	0.2615	0.5890	0.2636	0.5587
21	0.4250	0.5024	0.1414	1.0000	0.3575	0.6531
22	0.2306	0.6646	0.5438	0.1801	0.2818	0.6930
23	0.3232	0.0302**	0.5433	0.5134	0.3679	0.9560
24	0.1098	0.4569	1.0000	0.5796	0.5000	0.1230
25	0.7934	0.5890	0.7844	0.3691	0.7778	0.1844
26	0.2756	0.4803	0.3143	0.3513	0.7778	0.5935
27	0.1932	0.5062	0.4843	1.0000	0.7778	0.5281
28	0.5141	0.2487	0.7237	1.0000	0.7778	0.6127
29	0.1244	0.9411	0.5954	0.4646	0.5000	0.5189
30	0.3619	0.3747	0.3938	0.1871	0.3679	0.5134
31	0.5703	0.1718	0.7324	0.0917	0.0970	0.7359
32	0.3619	0.3329	0.3707	0.3691	0.5000	0.5589
33	0.0823	0.3638	0.2158	0.1314	0.5000	0.6489
34	0.0637	0.5024	0.7373	1.0000	0.5000	0.7849
28						

*N = 156

**Significant at the .05 level.

TABLE 27

Attitudinal Responses of Math Teachers to Attitudinal Statement Ten: Vocational Education to Prepare for Job Entry Skills Would be More Appropriate for Post High School Programs*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	25.0	75.0	0.0	100.0
Posttest	0.0	41.7	58.3	100.0

*N = 12

TABLE 28

Attitudinal Responses of Science Teachers to Attitudinal Statement Twelve: Vocational Programs Should be Conducted Primarily For The Low Academic Achievers*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	20.0	20.0	60.0	100.0
Posttest	0.0	100.0	0.0	100.0

*N = 5

TABLE 29

Attitudinal Responses of Math Teachers to Attitudinal Statement Thirteen: Preparation For Gainful Employment At The Entry Level in an Occupation is The Primary Goal of Vocational Education*

Time of Test	Percent Agree	Percent Disagree	Total Percent
Pretest	100.0	0.0	100.0
Posttest	58.3	41.7	100.0

*N = 12

pretest, the math teachers had 100 percent agreed. On the posttest, the percentages changed to 58.3 percent agreed and 41.7 percent disagreed. The results of the pretest-posttest comparison for attitudinal statement 13 revealed a negative change in attitude.

For attitudinal statement 15 the language arts teachers responded on the pretest in the following percentages: 5.6 percent agreed, 83.3 percent disagreed and 11.1 percent strongly disagreed. On the posttest, the percentages were 44.4 percent disagreed and 55.6 percent strongly disagreed. No responses were recorded in the agree category on the posttest. Attitudinal statement 15 was significant (at the .05 level, Chi Square = 8.46377 with 3 df) when the pretest and posttest responses of language arts teachers were compared (Table 30).

On the pretest, the language arts teachers responded to attitudinal statement 18 in the follwoing percentages: 11.1 percent agreed, 83.3 disagreed and 5.6 percent strongly disagreed. On the posttest, in response to the same statement the percentages were 66.7 percent disagreed and 33.3 percent strongly disagreed. Attitudinal statement 18 was significant (at the .05 level, Chi Square = 5.90476 with 2 df) for language arts teachers on the pretest-posttest comparison (Table 31).

On the pretest, the social studies teachers responded to attitudinal statement 23 with 30.8 percent agreed, 46.2 percent disagreed and 23.0 percent strongly disagreed. The percentages on the posttest were 92.3 percent disagreed and 7.7 percent strongly disagreed.

TABLE 30

Attitudinal Responses of Language Arts Teachers to Attitudinal Statement Fifteen: Since Vocational Programs are Usually More Expensive to Conduct Than Many of Our Other High School Programs, it is Economically Unwise to Conduct Such Programs in High School*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	5.6	83.3	11.1	100.0
Posttest	0.0	44.4	55.6	100.0

*N = 18

TABLE 31

Attitudinal Responses of Language Arts Teachers to Attitudinal Statement Eighteen: It Should be The Sole Responsibility of Employers to Train Those Whom They Employ to Work in Their Business and Industries*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	11.1	83.3	5.6	100.0
Posttest	0.0	66.7	33.3	100.0

*N = 18

No responses were recorded on the posttest for the agreement category. Significance (at the .05 level, Chi Square = 7.00000 with 2 df) was found, pretest-posttest comparison, for social studies teachers' responses to attitudinal statement 23 (Table 32).

HO_5

There is no significant difference in attitude change toward vocational education for teachers in each category of educational attainment as measured by attitudinal inventory statement seven through thirty-four.

For comparison purposes of HO_5, the educational attainment of the teachers of Humphreys and Houston Counties were grouped into the following categories: Less than B.S., B.S., M.S., and M.S. plus 45 hours.

In testing HO_5, (pretest-posttest comparison) the following educational attainment categories and corresponding attitudinal statements had significant differences at the .05 level: B.S. degree, Statements 9, 10, 12, 26, and 29; and M.S. degree, Statements 24 and 33 (Table 33). The significance levels (pretest-posttest comparison) of all additudinal statements may be found in Table 33. The percentages (pretests and posttests) for all attitudinal statements are listed in Appendix A.

On the pretest, in response to attitudinal statement 9, the B.S. degree teachers had 27.5 percent strong agreement, 67.9 percent agreement and 4.6 percent disagreement. On the posttest, the percentages were 42.2 percent strongly agreed and 57.8 percent agreed.

TABLE 32

Attitudinal Responses of Social Studies Teachers to Attitudinal Statement Twenty-Three: Vocational Programs in High School Should be Directed Toward Teaching Vocational Skill and Attitudes From the Classroom Leaving the Obtaining of Occupational Experience by the Student to the Time That the Student Completes School and is Actually Employed on the Job

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	30.8	46.2	23.0	100.0
Posttest	0.0	92.3	7.7	100.0

*N = 13

TABLE 33

HO_5: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance by Educational Level*

Statement Number	Educational Levels and Levels of Significance			
	Less than B.S.	B.S.	M.S.	M.S.+ 45
7	0.4468	0.7454	0.5497	0.1767
8	0.5000	0.0606	0.1565	0.7165
9	0.4346	0.0098**	0.2558	0.5134
10	1.0000	0.0029**	0.3203	0.7659
11	0.4451	0.3135	0.4222	0.5134
12	0.2997	0.0115**	0.2254	0.7273
13	0.2184	0.6222	0.2752	0.5738
14	0.4367	0.1073	0.7487	0.8187
15	0.4451	0.0781	0.7651	0.7273
16	0.5470	0.0868	0.6860	0.3679
17	0.4706	0.2215	0.6873	0.5738
18	0.7647	0.0705	0.2582	0.5488
19	0.1979	0.4445	0.7691	0.6005
20	0.5403	0.6823	0.2876	0.3932
21	0.2412	0.2748	0.6875	0.3998
22	0.2077	0.5911	0.5927	0.4346
23	0.5000	0.7751	0.5407	0.3425
24	0.0556	0.6361	0.0210**	0.5488
25	0.7647	0.9118	0.5962	0.5488
26	0.7118	0.0231**	0.5425	0.5134
27	0.6326	0.2595	0.1480	0.3679
28	0.1674	0.5536	1.0000	0.5134
29	0.7371	0.0260**	0.4562	0.2899
30	0.5294	0.2277	0.1005	0.3425

TABLE 33 (continued)

Statement Number	Educational Levels and Levels of Significance			
	Less than B.S.	B.S.	M.S.	M.S.+ 45
31	0.8807	0.4975	0.7212	0.5134
32	0.5000	0.2881	0.9010	0.3932
33	0.6065	0.1160	0.0428**	0.0907
34	0.3185	0.4025	0.2179	0.3932
Total 28				

*N = 156

**Significant at the .05 level

The responses on the posttest changed to the agree categories. Significance (at the .05 level, Chi Square = 9.25163 with 2 df) was found (pretest-posttest comparison) for attitudinal statement 9 (Table 34).

The teachers with a B.S. degree responded to attitudinal statement 10 on the pretest in the following percentages: 0.9 percent strongly agreed, 15.6 percent agreed, 72.5 percent disagreed, and 11.0 percent strongly disagreed. The percentages on the posttest were: 6.4 percent agreed, 65.1 percent disagreed and 28.5 percent strongly disagreed. There were no strongly agree responses on the posttest. Attitudinal statement 10 was significant (at the .05 level, Chi Square = 13.98868 with 3 df) (pretest-posttest comparison) for the teachers with a B.S. degree (Table 35).

In response to attitudinal statement 12 on the pretest the teachers with a B.S. degree had 0.9 percent strongly agreed, 8.2 percent agreed, 61.5 percent disagreed and 29.4 percent strongly disagreed. The percentages on the posttest changed to 72.5 percent disagreed and 27.5 percent strongly disagreed. All responses on the posttest were in the disagree categories. Attitudinal statement 12 was significant (at the .05 level, Chi Square = 11.05082 with 3 df) for the teachers with a B.S. degree (Table 36).

The percentages on the pretest for attitudinal statement 24 completed by the teachers with a M.S. degree were as follows: 38.7 percent agreed, 54.8 percent disagreed and 6.5 percent strongly disagreed. The percentages for the same statement on the posttest were 12.5

TABLE 34

Attitudinal Responses of Teachers with A B.S. Degree to Attitudinal Statement Nine: Vocational Education Should Enhance the Aims of the Total School Program*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	27.5	67.9	4.6	100.0
Posttest	42.2	57.8	0.0	100.0

*N = 109

TABLE 35

Attitudinal Responses of Teachers With A B.S. Degree to Attitudinal Statement Ten: Vocational Education to Prepare for Job Entry Skills Would be More Appropriate for Post High School Programs*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.9	15.6	72.5	11.0	100.0
Posttest	0.0	6.4	65.1	28.5	100.0

* N = 109

TABLE 36

Attitudinal Responses of Teachers With A B.S. Degree to Attitudinal Statement Twelve: Vocational Programs Should be Conducted Primarily for the Low Academic Achievers*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.9	8.2	61.5	29.4	100.0
Posttest	0.0	0.0	72.5	27.5	100.0

*N = 109

percent strongly agreed, 59.4 percent agreed, 21.9 percent disagreed and 6.2 percent strongly disagreed. Attitudinal statement 24 was significant (at the .05 level, Chi Square = 9.73389 with 3 df) for the teachers with a M.S. degree when the pretest and posttest were compared (Table 37).

On the pretest, the following percentages were computed from responses by teachers with a B.S. degree to attitudinal statement 26: 30.3 percent strongly agreed and 69.7 percent agreed. The percentages on the posttest were 45.0 percent strongly agreed, 53.2 percent agreed and 1.8 percent disagreed. A significant difference (at the .05 level, Chi Square = 7.53986 with 2 df) was found between the pretest and posttest for teachers with a B.S. degree on attitudinal statement 26 (Table 38).

The following percentages were computed from the responses of teachers with a B.S. degree to attitudinal statement 29: 9.2 percent strongly agreed, 83.5 percent agreed, and 7.3 percent disagreed. Percentage responses to the same statement on the posttest were: 22.2 percent strongly agreed, 73.2 percent agreed, and 4.6 percent disagreed. A significant difference (at the .05 level, Chi Square = 7.29963 with 2 df) was computed (pretest-posttest comparison) for the responses of teachers with a B.S. degree to attitudinal statement 29 (Table 39).

In response to attitudinal statement 33 on the pretest, the following percentages were computed for teachers with a M.S. degree: 6.5 percent strongly agreed, 83.9 percent agreed, and 9.6 percent disagreed. The percentages on the posttest were: 31.3 percent strongly agreed, 62.5 percent agreed, and 6.2 percent disagreed. A significant difference

TABLE 37

Attitudinal Responses of Teachers With A M.S. Degree to Attitudinal Statement Twenty-Four: There is a Difference in the Aims and Objectives of Vocational Education Compared to Career Education*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.0	38.7	54.8	6.5	100.0
Posttest	12.5	59.4	21.9	6.2	100.0

*N = 32

TABLE 38

Attitudinal Responses of Teachers With A B.S. Degree to Attitudinal Statement Twenty-Six: Schools Should Work Cooperatively With Industry and Other Places of Employment in Preparing Students for the World of Work*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	30.3	69.7	0.0	100.0
Posttest	45.0	53.2	1.8	100.0

*N = 109

TABLE 39

Attitudinal Responses of Teachers With A B.S. Degree to Attitudinal Statement Twenty-Nine: One of the Primary Purposes of Career Education is for Students to Learn to Make Decisions in Selecting A Vocation*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	9.2	83.5	7.3	100.0
Posttest	22.2	73.2	4.6	100.0

*N = 109

(at the .05 level, Chi Square = 6.30165 with 2 df) was computed from the pretest-posttest comparison for attitudinal statement 33 completed by teachers with a M.S. degree (Table 40).

HO_6

There is no significant difference in attitude change toward vocational education in each category of years of teaching experience as measured by attitudinal statement seven through thirty-four.

For comparison purposes, HO_6, the years of teaching experience of the teachers of Humphreys and Houston Counties were grouped into the following categories: 0-3 years, 4-6 years, 7-10 years, 11-15 years, 16-25 years, and over 25 years.

In testing HO_6, pretest-posttest comparison, the following teaching experience categories and corresponding attitudinal statements had significant differences at the .05 level: 0-3 years, statements 8, 10, and 18; 4-6 years, statement 12; 16-25 years, statements 10, 27, and 34; and over 25 years, statement 20 (Table 41). The significance levels (pretest-posttest comparisons) of all attitudinal statements may be found in Table 41. The percentages (pretests and posttests) for all attitudinal statements are listed in Table 75, Appendix A.

The responses of teachers with 0-3 years experience in percentages to attitudinal statement 8 on the pretest were 11.6 percent agreed, 65.1 percent disagreed, and 23.3 percent strongly disagreed. The posttest response percentages were 58.1 percent disagreed and 41.9

TABLE 40

Attitudinal Responses of Teachers With A M.S. Degree to Attitudinal Statement Thirty-Three: All Students in School Should Receive Some Training in Career Education*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	6.5	83.9	9.6	100.0
Posttest	31.3	62.5	6.2	100.0

*N = 32

TABLE 41

HO_6: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance by Years of Teaching Experience*

Statement Number	Years of Teaching Experience and Levels of Significance					
	0-3 Years	4-6 Years	7-10 Years	11-15 Years	16-24 Years	Over 25 Years
7	0.2606	0.5862	0.6632	0.3297	0.7897	0.5111
8	0.0240**	0.7854	0.7574	1.0000	0.4533	1.0000
9	0.1626	0.3247	0.3281	0.7915	0.1801	0.2202
10	0.0251**	0.1909	0.3377	0.6859	0.0170**	0.5258
11	0.1572	0.7485	1.0000	0.8283	0.6622	0.1767
12	0.2411	0.0425**	0.5247	0.3406	1.0000	0.6493
13	0.4958	0.9584	0.7514	0.1166	0.6956	0.6342
14	0.5535	0.5866	0.2086	0.6907	0.3292	0.7004
15	0.7050	0.0947	0.5394	0.2524	0.5510	0.7350
16	0.1191	0.8500	0.1323	0.8425	0.8555	0.4484
17	0.3301	0.5566	0.5796	0.3759	0.3782	0.4485
18	0.0343**	0.3358	0.3916	0.5283	0.5841	0.9179
19	0.5824	0.6833	0.3156	0.5766	0.9032	0.3985
20	0.6856	0.1971	0.2632	0.7788	0.3867	0.0390**
21	0.1219	0.9494	0.6929	0.9257	0.7525	0.5988
22	0.5874	0.2899	0.3522	0.4156	1.0000	0.2643
23	0.4767	0.5544	0.9549	0.4288	0.2711	0.9403
24	0.0899	0.2685	0.3843	0.3673	0.4796	0.1239
25	0.9040	0.8566	1.0000	0.4204	0.7508	0.5974
26	0.2177	0.5852	1.0000	0.5370	0.4629	0.5738
27	0.7910	0.7934	0.1779	0.4749	0.0441**	0.6561
28	1.0000	0.4754	1.0000	0.7425	0.5923	0.4184
29	0.2087	0.3760	0.1787	0.5962	1.0000	0.6417
30	0.2161	0.9134	0.3292	0.1571	0.5160	0.3667
31	0.5570	0.5450	0.1835	0.2839	0.3561	0.3752
32	0.1321	1.0000	0.5796	0.2606	0.8110	0.5647
33	0.2500	0.2038	0.8505	0.0602	0.1238	0.8357
34	0.0716	0.2817	0.3488	0.7425	0.0372**	0.3785
Total 28						

*N = 156.

**Significant at .05 level.

percent strongly disagreed. All responses on the posttest were in the disagree categories. A significant difference (at the .05 level, Chi Square = 7.45552) was found between the pretest-posttest comparison for attitudinal statement 8 completed by teachers with 0-3 years teaching experience (Table 42).

On the pretest, the teachers with 0-3 years experience responded to attitudinal statement 10 in the following percentages: 16.3 percent agreed, 79.1 percent disagreed, and 4.6 percent strongly disagreed. The posttest percentages were 11.6 percent agreed, 62.8 percent disagreed, and 25.6 percent strongly disagreed. Attitudinal statement 10 was significant (pretest-posttest comparison) (at the .05 level, Chi Square = 7.36738 with 2 df) for teachers with 0-3 years teaching experience (Table 43).

On the pretest, the responses of teachers with 16-25 years of teaching experience in percentages to attitudinal statement 10 were 37.5 percent agreed, 45.8 percent disagreed and 16.7 percent strongly disagreed. The percentages for the posttest were 4.2 percent agreed, 66.7 percent disagreed and 29.1 percent strongly disagreed. Significance (at the .05 level, Chi Square = 8.14410 with 2 df) (pretest-posttest comparison) was found for attitudinal statement 10 completed by teachers with 16-25 years of teaching experience (Table 44).

On the pretest, the teachers with 4-6 years teaching experience responded to attitudinal statement 12 with the following percentages: 11.2 percent agreed, 44.4 percent disagreed, and 44.4 percent strongly disagreed. The percentages on the posttest changed to 74.1 percent

TABLE 42

Attitudinal Responses of Teachers With 0-3 Years Teaching Experience to Attitudinal Statement Eight: The Primary Responsibility of High Schools Should be to Prepare Students For College*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Percent
Pretest	11.6	65.1	23.3	100.0
Posttest	0.0	58.1	41.9	100.0

*N = 43

TABLE 43

Attitudinal Responses of Teachers With 0-3 Years Teaching Experience to Attitudinal Statement Ten: Vocational Education to Prepare for Job Entry Skills Would be More Appropriate for Post High School Programs*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	16.3	79.1	4.6	100.0
Posttest	11.6	62.8	25.6	100.0

*N = 43

TABLE 44

Attitudinal Responses of Teachers With 16-25 Years Teaching Experience to Attitudinal Statement Ten: Vocational Education to Prepare for Job Entry Skills Would be More Appropriate for Post High School Programs*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	37.5	45.8	16.7	100.0
Posttest	4.2	66.7	29.1	100.0

*N = 24

disagreed and 25.9 percent strongly disagreed. A significant difference (at the .05 level, Chi Square = 6.31579 with 2 df) for the pretest-posttest comparison was found for attitudinal statement 12 completed by teachers with 4-6 years of teaching experience (Table 45).

The percentage responses of teachers with 0-3 years teaching experience for attitudinal statement 18 on the pretest were 9.3 percent agreed, 83.7 percent disagreed, and 7.0 percent strongly disagreed. The percentages for the same statement on the posttest were 2.3 percent agreed, 72.1 percent disagreed, and 25.6 percent strongly disagreed. A significant difference (at the .05 level, Chi Square = 6.74456 with 2 df) was found (pretest-posttest comparison) for attitudinal statement 18 completed by teachers with 0-3 years teaching experience (Table 46).

Attitudinal responses (in percentages) of teachers with over 25 years teaching experience for attitudinal statement 20 were as follows: 15.0 percent agreed, 80.0 percent disagreed, and 5.0 percent strongly disagreed. The percentages on the posttest were 72.7 percent disagreed and 27.3 percent strongly disagreed. All responses on the posttest were in the disagreement categories. A significant difference (at the .05 level, Chi Square = 6.49091 with 2 df) was found between the pretest-posttest comparison for attitudinal statement 20 completed by teachers with over 25 years of experience (Table 47).

Pretest attitudinal responses by teachers with 16-25 years teaching experience were calculated for attitudinal statement 27 with the following percentages: 50.0 percent agreed, 45.5 percent disagreed, and 4.5 percent strongly disagreed. The posttest percentages were

TABLE 45

Attitudinal Responses of Teachers With 4-6 Years Teaching Experience to Attitudinal Statement Ten: Vocational Programs Should be Conducted Primarily for the Low Academic Achievers*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	11.2	44.4	44.4	100.0
Posttest	0.0	74.1	25.9	100.0

*N = 27

TABLE 46

Attitudinal Responses of Teachers With 0-3 Years Teaching Experience to Attitudinal Statement Eighteen: It Should be the Sole Responsibility of Employers to Train Those Whom They Employ To Work in Their Business and Industries *

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	9.3	83.7	7.0	100.0
Posttest	2.3	72.1	25.6	100.0

*N = 43

TABLE 47

Attitudinal Responses of Teachers With Over 25 Years Teaching Experience to Attitudinal Statement Twenty: The Quality of Instruction in a Vocational Curriculum is of Inferior Quality to Instruction in Other High School Curricula*

Time of Test	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	15.0	80.0	5.0	100.0
Posttest	0.0	72.7	27.3	100.0

*N = 22

8.7 percent strongly agreed, 17.4 percent agreed, 52.2 percent disagreed, and 21.7 percent strongly disagreed. A significant difference (at the .05 level, Chi Square = 8.09692 with 3 df) was found on the pre-test-posttest comparison for attitudinal statement 27 completed by teachers with 16-25 years teaching experience (Table 48).

On the pretest, teachers with 16-25 years experience responded to attitudinal statement 34 with the following percentages: 41.7 percent strongly agreed and 58.3 percent agreed. On the posttest, the response percentages were 66.7 percent strongly agreed, 25.0 percent agreed, and 8.3 percent disagreed. A significant difference (at the .05 level, Chi Square = 6.58461 with 2 df) was found (pretest-posttest comparison) for attitudinal statement 34 completed by teachers with 16-25 years teaching experience (Table 49).

HO_7

There is no significant difference in attitude toward vocational education among Treatment Group I when compared to Treatment Group II as measured by attitudinal inventory statements seven through thirty-four.

For statistical analysis of HO_7, a pretest-pretest comparison of Treatment Group I and II and a posttest-posttest comparison of Treatment Group I and II was conducted.

In testing HO_7, pretest-pretest and posttest-posttest comparisons, the following attitudinal statements were significant at the .05 level for Treatment Group I and II: pretest-pretest 8, 9, 15, 22 and 23; and posttest-posttest 8, 13, 18, 22 and 28.

TABLE 48

Attitudinal Responses of Teachers With 16-25 Years Teaching Experience to Attitudinal Statement Twenty-Seven: There is Too Much Federal and State Control of Vocational Education for It to Function Effectively in the Total School Program*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest	0.0	50.0	45.5	4.5	100.0
Posttest	8.7	17.4	52.2	21.7	100.0

*N = 22

TABLE 49

Attitudinal Responses of Teachers With 16-25 Years Teaching Experience to Attitudinal Statement Thirty-Four: Vocational Education Programs Based on Student Needs and Interests Will Help Reduce Dropout Rates in High School*

Time of Test	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest	41.7	58.3	0.0	100.0
Posttest	66.7	25.0	8.3	100.0

*N = 22

The significance levels (pretest-pretest and posttest-posttest comparisons) of all attitudinal statements may be found in Table 50. The percentages (pretests and posttests) for all attitudinal statements are listed in Appendix A.

Attitudinal statement 8 reflected a significant difference (at the .05 level, Chi Square = 8.27620 with 2 df) between Treatment Group I and II for the pretest-pretest comparison (Table 51). The following percentages were computed for Treatment Group I: 3.8 percent agreed, 57.1 percent disagreed, and 39.1 percent strongly disagreed. The percentages for Treatment Group II were: 21.4 percent disagreed and 78.6 percent strongly disagreed.

On the posttest-posttest comparison a significant difference (at the .05 level, Chi Square = 6.07713 with 1 df) was found for attitudinal statement 8 (Table 51). Treatment Group I responded to attitudinal statement 8 in the following percentages: 52.6 percent disagreed and 47.4 percent strongly disagreed. The response percentages for Treatment Group II were 14.3 percent disagreed and 85.7 percent strongly disagreed. There were no agreed category responses for Treatment Group I or II on the posttest-posttest comparison.

On the pretest-pretest comparison of responses for attitudinal statement 9, Treatment Group I responded in the following percentages: 30.1 percent strongly agreed, 62.2 percent agreed, and 7.7 percent disagreed. Treatment Group II had 71.4 percent strongly agreed and 28.6 percent agreed. A significant difference (at the .05 level, Chi Square = 10.05493 with 2 df) was found between Treatment Group I and II for

TABLE 50

HO_7: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance By Pretest and Posttest of Treatment Group I and II*

Statement Number	Treatment Group I and II With Levels of Significance: Pretest to Pretest Comparison of Group I and II	Posttest to Posttest Comparison of Group I and II
7	0.0764	0.1221
8	0.0160**	0.0137**
9	0.0066**	0.1442
10	0.4933	0.1802
11	0.3074	0.2010
12	0.3356	0.0878
13	0.5005	0.0142**
14	0.2405	0.4681
15	0.0000**	0.1718
16	0.4883	0.6046
17	0.6682	0.5922
18	0.1467	0.0088**
19	0.0629	0.6837
20	0.2617	0.3888
21	0.7016	0.8315
22	0.0122**	0.0414**
23	0.0107**	0.3655
24	0.6701	0.2562
25	0.4994	0.2948
26	0.6891	0.4676
27	0.1805	0.8168
28	0.4084	0.0280**
29	0.0969	0.3792
30	0.0849	0.7778
31	0.0665	0.7933
32	0.6816	0.8319
33	0.0726	0.1014
34	0.2972	0.2725
Total 28		

*N = 170

**Significant at .05 level.

TABLE 51

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Eight: The Primary Responsibility of High Schools Should be to Prepare Students For College*

Treatment Group	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison				
I	3.8	57.1	39.1	100.0
II	0.0	21.4	78.6	100.0
Posttest-Posttest Comparison				
I	0.0	52.6	47.4	100.0
II	0.0	14.3	85.7	100.0

*N = 170

attitudinal statement 9 on the pretest to pretest comparison (Table 52).

On the posttest-posttest comparison of responses of Treatment Group I and II to statement 9 no significant difference at the .05 level was found (Table 52).

The pretest-pretest comparison of Treatment Group I and II responses to attitudinal statement 13 were not significant at the .05 level (Table 53).

The posttest-posttest responses of Treatment Group I and II to attitudinal statement 13 were significant (at the .05 level, Chi Square = 10.57743 with 3 df) (Table 53). The responses in percentages for Treatment Group I on the posttest were 7.7 percent strongly agreed, 66.0 percent agreed, 25.0 percent disagreed and 1.3 percent strongly disagreed. The posttest-posttest responses in percentages of Treatment Group II were 7.7 percent strongly agreed, 61.5 percent agreed, 15.4 percent disagreed, and 15.4 percent strongly disagreed (Table 53).

For the pretest-pretest comparison of Treatment Group I and II responses to attitudinal statement 15 the following percentages were calculated: Treatment Group I, 5.8 percent agreed, 63.9 percent disagreed, and 30.3 percent strongly disagreed; and Treatment Group II, 14.3 percent strongly agreed, 50.0 percent disagreed, and 35.7 percent strongly disagreed. A significant difference (at the .05 level, Chi Square = 23.47082 with 3 df) was found for attitudinal statement 15 between the pretest-pretest comparison completed by Treatment Group I and II (Table 54). A significant difference at the .05 level was not found for attitudinal statement 15 between the posttest-posttest

TABLE 52

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Nine: Vocational Education Should Enhance the Aims of the Total School Program*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest-Pretest Comparison				
I	30.1	62.2	7.7	100.0
II	71.4	28.6	0.0	100.0
Posttest-Posttest Comparison				
I	44.2	54.5	1.3	100.0
II	71.4	28.6	0.0	100.0

*N = 170

TABLE 53

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Thirteen: Preparation for Gainful Employment at the Entry Level in an Occupation is the Primary Goal of Vocational Education*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	5.8	71.4	20.8	2.0	100.0
II	8.3	58.3	25.0	8.4	100.0
Posttest-Posttest Comparison					
I	7.7	66.0	25.0	1.3	100.0
II	7.7	61.5	15.4	15.4	100.0

*N = 170

TABLE 54

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Fifteen: Since Vocational Programs Are Usually More Expensive to Conduct Than Many of Our Other High School Programs, It is Economically Unwise to Conduct Such Programs in High School*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.0	5.8	63.9	30.3	100.0
II	14.3	0.0	50.0	35.7	100.0
Posttest-Posttest Comparison					
I	1.3	1.9	62.2	34.6	100.0
II	0.0	0.0	35.7	64.3	100.0

*N = 170

comparison for Treatment Group I and II (Table 54).

For the pretest-pretest comparison of attitudinal responses of Treatment Group I and II to attitudinal statement 18, no significant relationships beyond the .05 level could be established (Table 55).

The posttest-posttest comparison of attitudinal responses of Treatment Group I and II to attitudinal statement 18 were significant (at the .05 level, Chi Square = 11.62561 with 3 df) (Table 55). The responses in percentages of Treatment Group I to attitudinal statement 18 on the posttest were 3.9 percent agreed, 76.8 percent disagreed, and 19.3 percent strongly disagreed. In response to the same statement on the posttest, Treatment Group II's responses in percentages were 7.1 percent strongly agreed, 7.1 percent agreed, 7.5 percent disagreed, and 14.3 percent strongly disagreed (Table 55).

The pretest-pretest comparison of Treatment Group I and II's attitudinal responses to attitudinal statement 22 revealed a significant relationship (at the .05 level, Chi Square = 10.92280 with 3 df) (Table 56). The percentage responses for Treatment Group I were 1.3 percent strongly agreed, 24.0 percent agreed, 66.2 percent disagreed, and 8.4 percent strongly disagreed. The responses of Treatment Group II were 7.1 percent strongly agreed, 57.1 percent agreed, 21.4 percent disagreed, and 14.3 percent strongly disagreed.

Attitudinal responses to attitudinal statement 22 of Treatment Group I and II for the posttest to posttest comparison were significant (at the .05 level, Chi Square = 8.23754 with 3 df) (Table 56).

Responses in percentages for Treatment Group I were 3.8 percent

TABLE 55

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Eighteen: It Should be the Sole Responsibility of Employers to Train Those Whom They Employ to Work in Their Business and Industries*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.6	5.2	81.4	12.8	100.0
II	7.1	0.0	78.6	14.3	100.0
Posttest-Posttest Comparison					
I	0.0	3.9	76.8	19.3	100.0
II	7.1	7.1	71.5	14.3	100.0

*N = 170

TABLE 56

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Twenty-Two: All High School Students Should be Required to Enroll in at Least One Vocational Course*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	1.3	24.4	59.6	14.7	100.0
II	7.2	57.1	21.4	14.3	100.0
Posttest-Posttest Comparison					
I	3.8	29.6	51.9	14.7	100.0
II	21.4	28.6	42.9	7.1	100.0

*N = 170

strongly disagreed, 29.6 percent agreed, 51.9 percent disagreed, and 14.7 percent strongly disagreed. The responses of Treatment Group II in percentages were as follows: 21.4 percent strongly agreed, 28.6 percent agreed, 42.9 percent disagreed and 7.1 percent strongly disagreed (Table 56).

Attitudinal statement 23 completed by Treatment Group I and II (pretest-pretest comparison) was significant (at the .05 level, Chi Square = 11.20640 with 3 df) (Table 57). Attitudinal responses for Treatment Group I occurred in the following percentages: 1.3 percent strongly agreed, 24.1 percent agreed, 66.2 percent disagreed and 8.4 percent strongly disagreed. The responses of Treatment Group II in percentages were 14.3 percent strongly agreed, 7.1 percent agreed, 64.3 percent disagreed, and 14.3 percent strongly disagreed (Table 57).

No significant relationship beyond the .05 level could be established for the posttest-posttest comparison of Treatment Group I and II responses to attitudinal statement 23 (Table 57).

A significant relationship beyond the .05 level could not be established for the pretest-pretest comparison of attitudinal statement 28 completed by Treatment Group I and II (Table 58).

A significant difference (at the .05 level, Chi Square = 2.89332 with 3 df) for the posttest-posttest comparison completed by Treatment Group I and II was found for attitudinal statement 28 (Table 58). Response percentages for Treatment Group I were 5.13 percent strongly agreed and 48.7 percent agreed. Response percentages for Treatment Group II were 85.7 percent strongly agreed and 14.3 percent agreed (Table 58).

TABLE 57

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Twenty-Three: Vocational Programs in High School Should be Directed Toward Teaching Vocational Skills and Attitudes From the Classroom, Leaving the Obtaining of Occupational Experience by the Student to the Time That the Student Completes School and is Actually on the Job*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	1.3	24.1	66.2	8.4	100.0
II	14.3	7.1	64.3	14.3	100.0
Posttest-Posttest Comparison					
I	1.2	19.9	65.4	13.5	100.0
II	7.1	14.3	71.4	7.1	100.0

*N = 170

TABLE 58

Attitudinal Responses of Treatment Group I and II to Attitudinal Statement Twenty-Eight: Schools Should Afford Opportunities For Students to Prepare For the World of Work as Well as Prepare to Enter College and For Other Pursuits in Life*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	48.1	50.0	1.3	0.6	100.0
II	71.4	28.6	0.0	0.0	100.0
Posttest-Posttest Comparison					
I	51.3	48.7	0.0	0.0	100.0
II	85.7	14.3	0.0	0.0	100.0

*N = 170

HO_8

There is no significant difference in attitude toward vocational education for those teachers registered for university credit hours and those teachers not registered as measured by attitudinal inventory statements seven through thirty-four.

For statistical analysis of HO_8, a pretest-pretest comparison of the Credit Group and Non-Credit Group, and a posttest-posttest comparison of the Credit Group and Non-Credit Group was conducted.

In testing HO_8, pretest-pretest and posttest-posttest comparison, the following attitudinal statements were significant at the .05 level for the Credit Group and Non-Credit Group: pretest-pretest 10 and 22; and posttest-posttest 12, 13, 15, 16, 20, 29, and 30.

The significance levels (pretests-pretests and posttests-posttests comparisons) of all attitudinal statements may be found in Table 59. The percentages (pretests and posttests) for all attitudinal statements are listed in Appendix A.

Attitudinal responses to attitudinal statement 10 of the Credit and Non-Credit Group were significant (at the .05 level, Chi Square = 12.83440 with 3 df) for the pretest-pretest comparison (Table 60). Responses in percentages of the Credit Group on the pretest were 7.7 percent strongly agreed, 7.7 percent agreed, 61.5 percent disagreed, and 23.1 percent strongly disagreed. Pretest responses of the Non-Credit group were 18.2 percent agreed, 69.2 percent disagreed, and 12.6 percent strongly disagreed.

No significant relationship beyond the .05 level (pretest-pretest

TABLE 59

HO_8: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance by Pretest and Posttest For Teachers Obtaining University Credit or Non-Credit*

Statement Number	University Credit and Non-credit Teachers With Levels of Significance: Pretest to Pretest Comparison of University Credit and Non-credit	Posttest to Posttest Comparison of University Credit and Non-credit
7	0.8259	0.5885
8	0.6868	0.8467
9	0.4077	0.4044
10	0.0050**	0.9851
11	0.0995	0.8122
12	0.9903	0.0242**
13	0.1059	0.0001**
14	0.7563	0.5819
15	0.4848	0.0182**
16	0.8330	0.0495**
17	0.7353	0.1671
18	0.8233	0.4472
19	0.7951	0.5365
20	0.4898	0.0014**
21	0.8047	0.7144
22	0.0222**	0.4238
23	0.4207	0.9550
24	0.4794	0.5178
25	0.8430	0.6812
26	0.8425	0.8232
27	0.8029	0.0754
28	0.9376	0.6291
29	0.3209	0.0461**
30	0.6780	0.0335**
31	0.7122	0.8611
32	0.8063	0.8117
33	0.8375	0.1385
34	0.4560	0.5791
Total 28		

*N = 156

**Significant at .05 level

TABLE 60

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Ten: Vocational Education to Prepare For Job Entry Skills Would be More Appropriate For Post High School Programs*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	7.7	7.7	61.5	23.1	100.0
II	0.0	18.2	69.2	12.6	100.0
Posttest-Posttest					
I	0.0	7.7	61.5	30.8	100.0
II	0.7	9.1	62.2	28.0	100.0

*N = 156

comparison) could be established for attitudinal statement 12 completed by the Credit and Non-Credit Groups (Table 61).

The posttest-posttest comparison of Credit and Non-Credit responses to attitudinal statement 12 did yield a significant difference (at the .05 level, Chi Square = 7.43886 with 2 df) (Table 61). Responses of the Credit Group in percentages were, 38.5 disagreed and 61.5 percent strongly disagreed. The responses in percentages of the Non-Credit Group to attitudinal statement 12 were 1.4 percent agreed, 72.7 percent disagreed, and 25.9 percent strongly disagreed (Table 61).

No significant relationship beyond the .05 level could be established for the responses to attitudinal statement 13 of the Credit and Non-Credit Group on the pretest-pretest comparison (Table 62).

However, a significant idfference (at the .05 level, Chi Square = 22.33957 with 3 df) was found for the responses to attitudinal statement 13 on the posttest-posttest completed by the Credit and Non-Credit Group (Table 62). Responses, in percentages, of the Credit Group were 7.7 percent strongly agreed, 53.8 percent agreed, 23.1 percent disagreed, and 15.4 percent strongly disagreed. The responses in percentages of the Non-Credit Group were 7.7 percent strongly agreed, 67.1 percent agreed, and 25.2 percent disagreed. There were no strongly disagreed responses for the Non-Credit Group to attitudinal statement 13 on the posttest-posttest comparison (Table 62).

The pretest-pretest comparison of responses by the Credit and Non-Credit Groups to attitudinal statement 15 at the .05 level was not significant (Table 63).

TABLE 61

Attitudinal Responses of Credit and Non-Credit Groups to Attitudinal Statement Twelve: Vocational Programs Should be Conducted Primarily For the Low Academic Achievers*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.0	7.7	61.5	30.8	100.0
II	0.7	7.7	62.9	28.7	100.0
Posttest-Posttest Comparison					
I	0.0	0.0	38.5	61.5	100.0
II	0.0	1.4	72.7	25.9	100.0

*N = 156

TABLE 62

Attitudinal Responses of the Credit and Non-Credit Group to Attitudinal Statement Thirteen: Preparation For Gainful Employment at the Entry Level in an Occupation is the Primary Goal of Vocational Education*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.0	53.8	46.2	0.0	100.0
II	6.4	73.0	18.4	2.2	100.0
Posttest-Posttest Comparison					
I	7.7	53.8	23.1	15.4	100.0
II	7.7	67.1	25.2	0.0	100.0

*N = 156

TABLE 63

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Fifteen: Since Vocational Programs Are Usually More Expensive to Conduct Than Many of Our Other High School Programs, It Is Economically Unwise to Conduct Such Programs In High School*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.0	0.0	76.9	23.1	100.0
II	0.0	6.3	62.7	31.0	100.0
Posttest-Posttest Comparison					
I	7.7	0.0	30.8	61.5	100.0
II	0.7	2.1	65.0	32.2	100.0

*N = 156

However, the posttest-posttest comparison was significant (at the .05 level, Chi Square = 10.03811 with 3 df) (Table 63). Responses of the Credit Group to attitudinal statement 15 on the posttest were 7.7 percent strongly agreed, 30.8 percent disagreed and 61.5 percent strongly disagreed. The posttest responses for the Non-Credit Group were 0.7 percent strongly agreed, 2.1 percent agreed, 65.0 percent disagreed, and 32.2 percent strongly disagreed (Table 63).

The pretest-pretest compariosn of responses to attitudinal statement 16 completed by the Credit and Non-Credit Groups did not reveal a significant difference beyond the .05 level (Table 64).

However, the posttest-posttest comparison did reveal a significant difference (at the .05 level, Chi Square = 6.01211 with 2 df) (Table 64). The responses in percentages to attitudinal statement 16 for the Credit Group were 53.8 percent strongly agreed and 46.2 percent agreed. The Non-Credit responses were 23.3 percent strongly agreed, 73.2 percent agreed, and 3.5 percent disagreed (Table 64).

The pretest-pretest comparison of responses to attitudinal statement 20 completed by the Credit and Non-Credit Groups did not reveal any significant relationships beyond the .05 level (Table 65).

The posttest-posttest comparison of responses to the same statement did reveal a significant difference (at the .05 level, Chi Square = 15.58490 with 3 df) between the Credit and Non-Credit Groups (Table 65). The responses of the Credit Group in percentages were 7.7 percent strongly agreed, 30.8 percent disagreed, and 61.5 percent strongly disagreed. The Non-Credit Group responses were 0.7 percent strongly

TABLE 64

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Sixteen: Students Should be Permitted to Enroll In Vocational Courses to Explore Their Possible Occupational Interests*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest-Pretest Comparison				
I	23.1	69.2	7.7	100.0
II	17.0	76.6	6.4	100.0
Posttest-Posttest Comparison				
I	53.8	46.2	0.0	100.0
II	23.3	73.2	3.5	100.0

*N = 156

TABLE 65

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Twenty: The Quality of Instruction in a Vocational Curriculum is of Inferior Quality to Instruction in Other High School Curricula*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.0	7.7	53.8	38.5	100.0
II	0.7	8.6	70.5	20.2	100.0
Posttest-Posttest Comparison					
I	7.7	0.0	30.8	61.5	100.0
II	0.7	3.6	73.9	21.8	100.0

*N = 156

agreed, 3.6 percent agreed, 73.9 percent disagreed, and 21.8 percent strongly disagreed (Table 65).

The pretest-pretest responses to attitudinal statement 22 did reveal a significant difference (at the .05 level, Chi Square = 9.60703 with 3 df) between the Credit and Non-Credit Groups (Table 66). Responses of the Credit Group were 100.0 percent disagreed. The Non-Credit Group had 1.4 percent strongly agreed, 26.6 percent agreed, 55.9 percent disagreed, and 16.1 percent strongly disagreed (Table 66).

No significant relationship could be established beyond the .05 level for the responses of the Credit and Non-Credit Group to attitudinal statement 22 (Table 66).

The pretest-pretest comparison of responses for attitudinal statement 29 did not reveal a significant difference beyond the .05 level between the Credit and Non-Credit Group (Table 67).

The posttest-posttest comparison of responses for attitudinal statement 29 revealed a significant difference (at the .05 level, Chi Square = 6.15228 with 2 df) between the Credit and Non-Credit Groups (Table 67). Responses in percentages to attitudinal statement 29 for the Credit Group on the posttest-posttest comparison were 46.1 percent strongly agreed, 46.2 percent agreed, and 7.7 percent disagreed. The responses of the Non-Credit Group were 18.3 percent strongly agreed, 76.8 percent agreed, and 4.9 percent disagreed (Table 67).

The pretest-pretest comparison of responses to attitudinal statement 30 did not reveal a significant difference beyond the .05 level between the Credit and Non-Credit Groups (Table 68).

TABLE 66

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Twenty-Two: All High School Students Should be Required to Enroll in at Least One Vocational Course*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	0.0	0.0	100.0	0.0	100.0
II	1.4	26.6	55.9	16.1	100.0
Posttest-Posttest Comparison					
I	7.7	15.4	69.2	7.7	100.0
II	3.5	30.8	50.3	15.4	100.0

*N = 156

TABLE 67

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Twenty-Nine: One of the Primary Purposes of Career Education is For Students to Learn to Make Decisions in Selecting A Vocation*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	7.7	69.2	23.1	0.0	100.0
II	12.1	79.4	7.8	0.7	100.0
Posttest-Posttest Comparison					
I	46.1	46.2	7.7	0.0	100.0
II	18.3	76.8	4.9	0.0	100.0

*N = 156

TABLE 68

Attitudinal Responses of the Credit and Non-Credit Groups to Attitudinal Statement Thirty: Children in K-8 Should Become Aware of Different Occupations and Oriented to the World of Work*

Treatment Group	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
I	16.7	83.3	0.0	0.0	100.0
II	21.3	69.5	8.5	0.7	100.0
Posttest-Posttest Comparison					
I	61.5	38.5	0.0	0.0	100.0
II	27.3	69.2	3.5	0.0	100.0

*N = 156

However, the posttest-posttest comparison showed a significant difference (at the .05 level, Chi Square = 6.79095 with 2 df) between the Credit and Non-Credit Groups in their responses to attitudinal statement 30 (Table 68). The Credit Group's responses in percentages on the posttest-posttest to attitudinal statement 30 were 61.5 percent strongly agreed and 38.5 percent agreed. The Non-Credit Group's responses in percentages on the posttest to attitudinal statement 30 were 27.3 percent strongly agreed, 69.2 percent agreed and 3.5 percent disagreed (Table 68).

HO_9

There is no significant difference in attitude toward vocational education between the teachers of Humphreys County and the teachers of Houston Coutny as measured by attitudinal inventory statements seven through thirty-four.

For statistical analysis of HO_9, a pretest-pretest comparison of Humphreys County and Houston County teachers and a posttest-posttest comparison of Humphreys County and Houston County teachers was conducted.

In testing HO_9, pretest-pretest and posttest-posttest comparisons, the following attitudinal statements were significant at the .05 level for Humphreys County and Houston County teachers: Pretest-pretest 14, 15, and 22; and posttest-posttest 24 and 26.

The significance levels (pretest-pretest and posttest-posttest comparisons) of all attitudinal statements may be found in Table 69. The percentages (pretests and posttests) for all attitudinal statements are listed in Appendix A.

TABLE 69

HO_9: Attitudinal Statements Seven Through Thirty-Four With Levels of Significance by Pretests and Posttests For Teachers of Humphreys and Houston County*

Statement Number	Pretest to Pretest Comparison of Humphreys and Houston County Teachers	Posttest to Posttest Comparison of Humphreys and Houston County Teachers
7	0.2726	0.7136
8	0.0146	0.7882
9	0.9236	0.8060
10	0.3552	0.5964
11	0.0839	0.3329
12	0.6984	0.4109
13	0.9994	0.5002
14	0.0199**	0.8940
15	0.0517**	0.2186
16	0.4398	0.4587
17	0.6918	0.1713
18	0.2436	0.5068
19	0.0862	0.6226
20	0.1446	0.7176
21	0.1632	0.7264
22	0.0116**	0.7363
23	0.7682	0.6413
24	0.1683	0.0465**
25	0.8948	0.4307
26	0.5801	0.0253**
27	0.0813	0.1313
28	0.3635	0.2810
29	0.2582	0.1378
30	0.7496	0.7104
31	0.8218	0.2758
32	0.0592	0.1020
33	0.9444	0.2135
34	0.0987	0.8466
Total 28		

*N = 156

**Significant at the .05 level

The pretest-pretest responses to attitudinal statement 14 were significant (at the .05 level, Chi Square = 7.83402 with 2 df) between the Humphreys County and Houston County teachers (Table 70). The percentage responses to attitudinal statement 14 by Humphreys County teachers were as follows: 18.9 percent strongly agreed, 75.4 percent agreed and 5.7 percent disagreed. The responses, in percentages, for the Houston County teachers were 36.7 percent strongly agreed and 63.3 percent agreed. On the posttest-posttest comparison, no significant relationships could be established beyond the .05 level between the responses of Humphreys County and Houston County teachers to attitudinal statement 14 (Table 70).

A significant difference (at the .05 level, Chi Square = 5.92335 with 2 df) was found between the responses to attitudinal statement 15 of Humphreys and Houston County County teachers on the pretest-pretest comparison (Table 71). The Humphreys County teachers' responses, in percentages, were 2.8 percent agreed, 64.2 percent disagreed, and 33.0 percent strongly disagreed. The Humphreys County teachers' responses in percentages were 12.2 percent agreed, 63.3 percent disagreed, and 24.5 percent strongly disagreed (Table 71).

The posttest-posttest comparison revealed no significant difference beyond the .05 level between the responses of Humphreys County and Houston County teachers to attitudinal statement 15 (Table 71).

A significant difference (at the .05 level, Chi Square = 11.02346 with 3 df) was found between the responses of Humphreys and

TABLE 70

Attitudinal Responses of Humphreys County and Houston County Teachers to Attitudinal Statement Fourteen: All Students Should Have the Opportunity to Enroll in A High School Vocational Program of Their Interest*

County	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
Humphreys	18.9	75.4	5.7	0.0	100.0
Houston	36.7	63.3	0.0	0.0	100.0
Posttest-Posttest Comparison					
Humphreys	30.3	67.9	0.9	0.9	100.0
Houston	30.0	66.0	2.0	2.0	100.0

*N = 156

TABLE 71

Attitudinal Responses of Humphreys County and Houston County Teachers to Attitudinal Statement Fifteen: Since Vocational Programs Are Usually More Expensive to Conduct Than Many of Our Other High School Programs, It Is Economically Unwise to Conduct Such Programs in High School*

County	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
Humphreys	0.0	2.8	64.2	33.0	100.0
Houston	0.0	12.2	63.3	24.5	100.0
Posttest-Posttest Comparison					
Humphreys	2.0	2.8	57.5	37.7	100.0
Houston	0.0	0.0	72.0	28.0	100.0

*N = 156

Houston County teachers to attitudinal statement 22 on the pretest-pretest comparison (Table 72). The responses of Humphreys County teachers to attitudinal statement on the pretest were 1.9 percent strongly agreed, 25.4 percent agreed, 64.2 percent disagreed, and 8.5 percent strongly disagreed. The responses of the Houston County teachers to statement 22 on the pretest were 22.0 percent agreed, 50.0 percent disagreed, and 28.0 percent strongly disagreed (Table 72).

No significant relationship was found between the responses of Humphreys and Houston County Teachers to attitudinal statement 22 for the posttest-posttest comparison (Table 72).

The pretest-pretest comparison of responses to attitudinal statement 24 revealed no significant difference beyond the .05 level between the teachers of Humphreys County and Houston County (Table 73).

A significant difference (at the .05 level, Chi Square = 7.97521 with 3 df) was found between the responses of Humphreys County and Houston County teachers to attitudinal statement 24. Humphreys County teachers' responses, in percentages, to attitudinal statement 24 on the posttest were 4.8 percent strongly agreed, 53.3 percent agreed, 40.0 percent disagreed, and 1.9 percent strongly disagreed. Responses, in percentages, of Houston County teachers to attitudinal statement 24 on the posttest were 2.0 percent strongly agreed, 44.0 percent agreed, 42.0 percent disagreed, 12.0 percent strongly disagreed (Table 73).

The pretest-pretest comparison of responses to attitudinal statement 26 revealed no significant difference beyond the .05 level between the teachers of Humphreys and Houston County (Table 74).

TABLE 72

Attitudinal Responses of Humphreys and Houston County Teachers To Attitudinal Statement Twenty-Two: All High School Students Should be Required To Enroll In at Least One Vocational Course*

County	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
Humphreys	1.9	25.4	64.2	8.9	100.0
Houston	0.0	22.0	50.0	28.0	100.0
Posttest-Posttest Comparison					
Humphreys	4.7	29.3	50.0	16.0	100.0
Houston	2.0	30.0	56.0	12.0	100.0

*N = 156

TABLE 73

Attitudinal Responses of Humphreys and Houston County Teachers to Attitudinal Statement Twenty-Four: There is A Difference in the Aims and Objectives of Vocational Education Compared to Career Education*

County	Percent Strongly Agree	Percent Agree	Percent Disagree	Percent Strongly Disagree	Total Percent
Pretest-Pretest Comparison					
Humphreys	0.0	36.2	60.0	3.8	100.0
Houston	0.0	50.0	43.8	6.2	100.0
Posttest-Posttest Comparison					
Humphreys	4.8	53.3	40.0	1.9	100.0
Houston	2.0	44.0	42.0	12.0	100.0

*N = 156

TABLE 74

Attitudinal Responses of Humphreys County and Houston County Teachers to Attitudinal Statement Twenty-Six: Schools Should Work Cooperatively With Industry and Other Places of Employment in Preparing Students For the World of Work*

County	Percent Strongly Agree	Percent Agree	Percent Disagree	Total Percent
Pretest-Pretest Comparison				
Humphreys	34.0	65.1	0.9	100.0
Houston	28.0	72.0	0.0	100.0
Posttest-Posttest Comparison				
Humphreys	44.3	55.7	0.0	100.0
Houston	34.0	60.0	6.0	100.0

*N = 156

A significant difference (at the .05 level, Chi Square = 7.35747 with 2 df) was found between the responses of Humphreys County and Houston County teachers to attitudinal statement 26 (Table 74). Humphreys County teachers' responses, in percentages, to attitudinal statement 26 on the posttest were 44.3 percent strongly agreed, and 55.7 percent agreed. Houston County teachers' responses, in percentages, to attitudinal statement 26 on the posttest were 43.0 percent strongly agreed, 60.0 percent agreed, and 6.0 percent disagreed (Table 74).

II. SUMMARY

Data analyses were based on 156 responses representing Treatment Group I and 14 responses representing Treatment Group II. Data presentations were made from respondent demographic information and from respondent responses to the Attitudinal Inventory Questionnaire. The presentation included categorial percentages and statistics for the data presented. Significant relationships were presented in table form.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The lifetime teaching certificate awarded teachers can no longer be justified as sufficient in our educational system. One way for the teacher to keep pace with recent innovations in education is through inservice education. Inservice education can also be used to correct the shortcomings of preservice education.

The Tennessee Comprehensive Vocational Education Act of 1973 has as its purpose the furnishing of facilities for at least 50 percent of all students in grades 9 through 12 and to provide counseling and prevocational courses to students in grades 7 and 8. The teachers in Tennessee must be prepared attitudinally for such an undertaking and inservice education is one method through which they can be prepared.

The primary focus of the review of literature was concerned with the definition of attitude, the value of inservice toward changing attitudes, and studies showing previous inservice programs in which participant attitudes were changed. The design of the significant inservice programs was similar to the project conducted in Humphreys and Houston Counties. Further mention of a successful inservice format concludes the review.

The purpose of the study was to develop and conduct an inservice training program in vocational education and to change teacher

attitudes toward vocational education in Humphreys and Houston Counties.

Summary of Methodology

The instrument, Attitudinal Inventory Relative to Vocational Education, used to measure teacher attitudes was designed specifically for this study. A pilot study was conducted to ascertain the validity and statistical internal reliability of the instrument.

The population for this study consisted of all the teachers of Humphreys and Houston counties in Tennessee. For statistical comparisons the population was divided into 2 groups: Treatment Group I (156 teachers) and Treatment Group II (14 teachers).

The data for this study was collected from the pretest (administered at the beginning of the study) and the posttest (administered at the end of the project).

The SPSS Codebook and Crosstabulation Computer programs were used to tabulate and organize pretest and posttest responses. The Chi Square statistic was used to check for statistical differences.

Summary of Findings

Attitudinal Change of All Teachers. Hypothesis HO_1 was concerned with the attitude change of the teachers of Humphreys and Houston counties. Significant attitude change at the .05 level was found for attitudinal statements 8, 9, 10, 12, 24, and 33 on the pretest-posttest comparison. Positive attitudinal change, though not significant were found for attitudinal statements, 7, 11, 14, 15, 16, 20, 26, 27, 29, 30, 31, 32, and 34.

Attitudinal change of teachers by schools. The second hypothesis (HO_2) dealt with attitude changes of teachers when categorized by schools. Significant attitudinal change (at the .05 level) was found for Waverly Central High School, statement 30; Waverly Junior High School, statement 14 and 24; Houston County High School, statement 23; and Erin Elementary, statement 22.

Attitudinal change of teachers by grade category. The third hypothesis (HO_3) was concerned with the attitude change of teachers of grade categories K-3, 4-6, 7-9 and 10-12. The following grade levels and corresponding attitudinal statements were significant at the .05 level: 7-9, statement 10; and 10-12, statements 9, 10, and 30. No significant differences at the .05 level were found for grade levels K-3 and 4-6.

Attitudinal change of teachers by academic curriculum areas. The fourth hypothesis (HO_4) was concerned with the attitude change of teachers of the various categories of academic curriculum areas. The following academic curriculum areas and corresponding attitudinal statements were significant at the .05 level: social studies, statement 23; language arts, statements 15 and 18; math, 10 and 13; and science, statement 12. The teachers in the academic curriculum area of math had a negative change in attitude on the pretest-posttest comparison for attitudinal statement 13.

There were no significant (at the .05 level) attitudinal statements for the elementary and other academic curriculum areas.

Attitudinal change of teachers by educational attainment. The fifth hypothesis (HO_5) concerned with the attitude change of teachers by educational attainment (less than B.S., B.S., M.S., and M.S. + 45 hours). The following educational attainment categories and corresponding attitudinal statements were significant at the .05 level: B.S. degree, statements 9, 10, 12, 26, and 29; and M.S. degree, statements 24 and 33. No significant attitudinal changes were found for the teachers in the less than B.S. and M.S. + 45 hours educational attainment categories.

Attitudinal change of teachers by years of teaching experience. The sixth hypothesis (HO_6) was concerned with the attitude change of teachers by years of teaching experience. The following teaching experience categories and corresponding attitudinal statements had significant differences at the .05 level: 0-3 years, statements 8, 10, and 18; 4-6 years, statement 12; 16-25 years, statements 10, 27, and 34; and over 25 years, statement 20. No significant (at the .05 level) differences were found for the categories 7-10 years and 11-15 years teaching experience.

Attitudinal change of teachers by Treatment Groups. The seventh hypothesis (HO_7) was concerned with teacher attitude change by Treatment Groups. On the pretest-pretest comparison, a significant difference (at the .05 level) existed between Treatment Group I and II for attitudinal statements 8, 9, 15, 22 and 23. Although this study was concerned with the attitudes of teachers at

the beginning of the study, the final product was the most important. Therefore the posttest-posttest comparison of Treatment Groups gained the greatest attention. On the posttest-posttest comparison, the following attitudinal statements were significant at the .05 level: 8, 13, 18, 22, and 28. On the posttest-posttest comparison, attitudinal statements 13, 18, and 22 were favorable to Treatment Group I and attitudinal statements 8 and 28 were favorable to Treatment Group II.

Attitudinal change of teachers by Credit and Non-Credit Groups. The eighth hypothesis (HO_8) was concerned with teacher attitude change by Credit and Non-Credit Groups. On the pretest-pretest comparison, a significant difference (at the .05 level) existed between the Credit and Non-Credit Groups for attitudinal statements 10 and 22. For HO_8, as in HO_7, the greatest implications for the Credit and Non-Credit Groups came from the posttest-posttest comparison. On the posttest-posttest comparison, the following attitudinal statements were significant at the .05 level: 12, 13, 15, 16, 20, 29, and 30. Attitudinal statements (posttest-posttest comparison) 12, 15, 16, 20, 29, and 30 were favorable to the Credit Group and attitudinal statement 13 was favorable to the Non-Credit Group.

Attitudinal change of teachers by county. The ninth hypothesis (HO_9) was concerned with teacher attitude change by Hymphreys County and Houston County. On the pretest-pretest comparison, a significant difference (at the .05 level) existed between Humphreys County and

Houston County teachers for attitudinal statements 14, 15, and 22. For HO_9, as in HO_7 and HO_8, the greatest implications for the Humphreys and Houston County teacher comparison came from the posttest-posttest comparison. On the posttest-posttest comparison, the following attitudinal statements were significant at the .05 level: 24 and 26. Humphreys County teachers had the most favorable attitude change on both statements 24 and 26.

II. CONCLUSIONS AND RECOMMENDATIONS

Based upon the findings of this study, the following conclusions and recommendations are made:

Conclusion One

There was a significant difference in attitude change toward vocational education of the teachers of Humphreys and Houston Counites as measured by attitudinal statements seven through thirty-four. Therefore, HO_1 was rejected.

Recommendation

It is recommended that a model be developed, from the program outlined in this study, and used by other school systems for implementing the provisions of the Comprehensive Vocational Education Act passed by the 1973 General Assembly.

Conclusion Two

There was a significant difference in attitude change toward

vocational education of the teachers of the schools of Humphreys and Houston Counties as measured by attitudinal inventory statements seven through thirty-four. Therefore, HO_2 was rejected. Because several schools showed significant differences further conclusions could not be made, although school location did not appear to adversely affect attitude change.

Recommendation

Further study should be conducted to determine why school location could be an infuencing factor on attitude change.

Conclusion Three

There was a significant difference in attitude change toward vocational education of the teachers in the grade categories 7-9 and 10-12 as measured by attitudinal inventory statements seven through thirty-four. Therefore, HO_3 was rejected. Teachers of grade levels K-3 and 4-6 did not show any significant difference in attitude change.

Recommendation

It is recommended that futute inservice programs for vocational education place greater emphasis toward the lower grade level categories K-3 and 4-6.

Conclusion Four

There was a significant difference in attitude change toward vocational education of teachers of the various categories of academic curriculum areas as measured by attitudinal inventory statements seven

through thirty-four. Therefore, HO_4, was rejected. There were no significant differences found for attitudinal statements completed by the elementary teachers; this tended to support conclusion three. The lack of significant attitude change by the elementary teachers could be caused by the lack of vocational education in the lower grade.

Recommendation

Vocational education and career education concepts should be emphasized to teachers in the elementary curriculum area during vocational inservice programs.

Conclusion Five

There was a significant difference in attitude change toward vocational education for teachers in the B.S. and M.S. categories of educational attainment as measured by attitudinal inventory statements seven through thirty-four. Therefore, HO_5, was rejected. The teachers in the B.S. degree categories had more significant attitude change than did the teachers in the other degree categories. Because of the small cell size of the less than B.S. and M.S. + 45 hours degree categories further conclusions cannot be made.

Recommendation

It is recommended that a study be conducted to determine why the educational attainment of a teacher could be an influencing factor to attitude formation and change.

Conclusion Six

There was a significant difference in attitude change toward vocational education in the categories of years of teaching experience as measured by attitudinal statements seven through thirty-four. Therefore, HO_6 was rejected. Becuase a definite trend could not be related to attitude change and years of teaching experience further conclusions can not be made. The teacher's years of teaching experience did not appear to affect attitude change.

Recommendation

It is recommended that further study be conducted to determine if teaching experience is an influencing factor in teacher attitude change.

Conclusion Seven

There was a significant difference in attitude toward vocational education among the teachers in Treatment Group I when compared to the teachers in Treatment Group II as measured by attitudinal inventory statements seven through thirty-four. Therefore, HO_7 was rejected. The extra sessions that were provided to Treatment Group II was not an influencing factor in attitude change.

Recommendation

It is recommended that a well-balanced vocational inservice program be instituted for all teachers. Extra sessions may not be necessary to influence attitudes.

Conclusion Eight

There was a significant difference in attitude toward vocational

education for those teachers registered for university credit hours and those teachers not registered as measured by attitudinal inventory statements seven through thirty-four. Therefore, HO_8 was rejected. The registering for university credit, based on the findings, may bring about additional attitudinal change in an inservice education program.

Recommendation

It is recommended that university credit be made available to teachers attending vocational inservice programs.

Conclusion Nine

There was a significant difference in attitude toward vocational education between the teachers of Humphreys County and the teachers of Houston County as measured by attitudinal inventory statements seven through thirty-four. Therefore, HO_9 was rejected. Because only two attitudinal statements were significant by county comparison, concrete conclusions were difficult to make. The teachers of Humphreys County did have more positive attitudes toward vocational education. This may be due to the fact that Humphreys County schools offer more vocational programs than Houston County schools; therefore enabling Humphreys County teachers to have greater familarity with vocational education.

Recommendation

It is recommended that a survey be made of each school district to determine current vocational offerings and develop inservice programs accordingly.

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BIBLIOGRAPHY

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APPENDICES

APPENDIX A

DEMOGRAPHIC DATA

1. School?

16	Lakeview Elementary
19	Waverly Central High School
19	Waverly Elementary
27	Waverly Junior High School
25	McEwen Elementary and High School
16	Houston County High School
9	Tennessee Ridge Elementary
25	Erin Elementary
156	Total

2. Grades you teach?

56	K-3
32	4-6
30	7-9
38	10-12
156	Total

3. Subject Area?

76	Elementary
13	Social Studies
18	Language Arts
12	Math
5	Science
32	Other
156	Total

4. Education Level:

9	Less than B.S.
109	B.S.
32	M.S.
6	M.S. + 45
156	Total

5. Teaching Experience?

43	0-3 years
27	4-6 years
21	7-10 years
19	11-15 years
24	16-25 years
22	Over 25 years
156	Total

TABLE 75

Treatment Group I Accumulative Attitudinal Responses*

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
7. High School students are too young to think seriously about choosing a vocation.	1.3	4.5	47.4	46.8	0.6	4.5	42.3	52.6	None
8. The primary responsibility of high schools should be to prepare students for college.	0.0	3.8	57.1	39.1	0.0	0.0	52.6	47.4	HO_1, HO_6 (0-3 years), HO_7
9. Vocational education should enhance the aims of the total school program.	30.1	62.2	7.7	0.0	44.2	54.5	1.3	0.0	HO_1, HO_3 (grade 10-12), HO_5 (B.S. degree), HO_7
10. Vocational education to prepare for job entry skills would be more appropriate for high school programs.	0.6	17.3	68.6	13.5	0.6	9.0	62.2	28.2	HO_1, HO_3 (grade 7-9) (10-12), HO_4 (Math), HO_5 (B.S. degree), HO_6 (0-3 years)(6-25 years) HO_8
11. All vocational teachers should have occupational experience in their respective vocational fields.	24.4	63.5	11.5	0.6	34.0	55.8	10.3	0.0	

TABLE 75 (continued)

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
12. Vocational programs should be conducted primarily for the low academic achievers.	0.6	7.7	62.8	28.8	0.0	1.3	69.9	28.8	HO_1, HO_4 (Science), HO_5 (B.S. degree), HO_6 (4-6 years), HO_8
13. Preparation for gainful employment at the entry level in an occupation is the primary goal of vocational education.	5.8	71.4	20.8	1.9	7.7	66.0	25.0	1.3	HO_4 (Science), HO_7, HO_8
14. All students should have the opportunity to enroll in a high school vocational program of their interest.	24.5	71.6	3.9	0.0	30.1	67.3	1.3	1.3	HO_2 (Waverly Junior High School), HO_9
15. Since vocational programs are usually more expensive to conduct than many of our other high school programs, it is economically unwise to conduct such programs in high schools.	0.0	5.8	63.9	30.3	1.3	1.9	62.2	34.6	HO_4 (Language Arts), HO_7 HO_8, HO_9

TABLE 75 (continued)

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
16. Students should be permitted to enroll in vocational courses to explore their possible occupational interests.	17.5	76.0	6.5	0.0	25.8	71.0	3.2	0.0	HO_8
17. The vocational education program should provide opportunities throughout the training program that allows students to change or redirect their occupational objectives.	18.8	77.3	3.9	0.0	25.0	72.4	2.6	0.0	None
18. It should be the sole responsibility of employers to train those whom they employ to work in their business and industries.	0.6	5.1	81.4	12.8	0.0	3.9	76.8	19.4	HO_4 (Language Arts, HO_6 (0-3 years), HO_7
19. Students who pursue a vocational curriculum in high school should receive a certificate indicating their achievement rather than a high school diploma with all rights and privileges appertaining thereto.	5.3	46.0	38.7	10.0	5.1	39.1	44.2	11.5	None

TABLE 75 (continued)

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
20. The quality of instruction in a vocational curriculum is of inferior quality to instruction in other high school curricula.	0.7	8.6	69.1	21.7	1.3	3.2	70.3	25.2	HO_6 (over 25 years), HO_8
21. The high school curriculum should contain courses in English, Math, Science and others that are oriented to the world of work for students who can not be motivated by a more academic approach.	20.3	75.2	3.9	0.7	21.8	72.4	5.1	0.6	None
22. All high school students should be required to enroll in at least one vocational course.	1.3	24.4	59.6	14.7	3.8	29.5	51.9	14.7	HO_2 (Erin Elementary), HO_7, HO_8, HO_9
23. Vocational programs in high school should be directed toward teaching vocational skills and attitudes from the classroom leaving the obtaining of occupational experience									

TABLE 75 (continued)

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
by the student to the time that the student completes school and is actually employed on the job.	1.3	24.0	66.2	8.4	1.3	19.9	65.4	13.5	HO_2 (Houston County High School), HO_4 (Social Studies), HO_7
24. There is a difference in the aims and objectives of vocational education compared to career education.	0.0	40.5	54.9	4.6	3.9	50.3	40.6	5.2	HO_1, HO_2 (Waverly Junior High School), HO_5 (M.S. degree), HO_9
25. Students preparing for the world of work should develop competencies in communications, human relations and other areas deemed important for employment.	34.6	63.5	1.9	0.0	36.5	61.5	1.9	0.0	None
26. Schools should work cooperatively with industry and other places of employment in preparing students for the world of work.	32.1	67.3	0.6	0.0	41.0	57.1	1.9	0.0	HO_5 (B.S. degree), HO_9

TABLE 75 (continued)

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
27. There is too much Federal and State control of vocational education for it to function effectively in the total school program.	1.4	31.0	62.0	5.6	4.6	24.8	59.5	11.1	HO_6 (16-25 years)
28. Schools should afford opportunities for students to prepare for the world of work as well as prepare to enter college and for other pursuits in life.	48.1	50.0	1.3	0.6	51.3	48.7	0.0	0.0	HO_7
29. One of the primary purposes of career education is for students to learn to make decisions in selecting a vocation.	11.7	78.6	9.1	0.6	20.6	74.2	5.2	0.0	HO_5 (B.S. degree), HO_8
30. Children in K-8 should become aware of different occupations and oriented to the world of work.	20.9	70.6	7.8	0.7	30.1	66.7	3.2	0.0	HO_2 (Waverly Central High School), HO_3 (grade 10-12), HO_8

TABLE 75 (continued)

Statement	Pretest (Percent) SA	A	D	SD	Posttest (Percent) SA	A	D	SD	Significant With
31. Vocational education is a passing fad brought about in an attempt to remedy the lack of academic achievement of students.	0.0	3.9	60.6	35.5	1.9	1.9	57.1	39.1	None
32. High school students enrolled in vocational education to prepare for employment should receive some related occupational experience.	21.3	73.5	5.2	0.0	27.6	69.9	2.6	0.0	None
33. All students in school should receive some training in career education.	13.1	73.9	13.1	0.0	25.0	67.9	7.1	0.0	HO_1, HO_5 (M.S. degree)
34. Vocational education programs based on student needs and interest will help reduce dropout rates in high school.	38.5	59.0	1.9	0.6	49.4	48.7	1.9	0.0	HO_6 (16-25 years)

*N = 156

APPENDIX B

ATTITUDINAL INVENTORY RELATIVE TO VOCATIONAL EDUCATION

You are being asked to respond to some statements about Vocational Education. Your response is correct if it expresses your true opinion about the statement. DO NOT OMIT any item. In each case, encircle the letter or letters that represent your opinion about each statement. Do not express but one opinion about each statement. Before encircling a letter or letters, decide upon the suggested response that corresponds to your opinion.

SA - Strongly agree
A - Agree
D - Disagree
SD - Strongly disagree

1. Name _____

2. School _____

3. Grades you teach:

   _____ K-3

   _____ 4-6

   _____ 7-9

   _____ 10-12

4. Subject area:

5. Education Level: _____ less than B.S., _____ B.S.,

   _____ M.S., _____ M.S. + 45 hours, _____ E.D.S., _____ Other.

6. Teaching Experience: _____ 0-3 years, _____ 4-6 years,

   _____ 7-10 years, _____ 11-15 years, _____ 16-25 years,

   _____ over 25 years.

7. High school students are too young to think seriously about choosing a vocation. SA A D SD

8. The primary responsibility of high schools should be to prepare students for college. SA A D SD

9. Vocational education should enhance the aims of the total school program. SA A D SD

10. Vocational education to prepare for job entry skills would be more appropriate for post high school programs. SA A D SD

11. All vocational teachers should have occupational experience in their respective vocational fields. SA A D SD

12. Vocational programs should be conducted primarily for the low academic achievers. SA A D SD

13. Preparation for gainful employment at the entry level in an occupation is the primary goal of vocational education. SA A D SD

14. All students should have the opportunity to enroll in a high school vocational program of their interest. SA A D SD

15. Since vocational programs are usually more expensive to conduct than many of our other high school programs, it is economically unwise to conduct such programs in high schools. SA A D SD

16. Students should be permitted to enroll in vocational courses to explore their possible occupational interests. SA A D SD

17. The vocational education program should provide opportunities throughout the training program that allows students to change or redirect their occupational objectives. SA A D SD

18. It should be the sole responsibility of employers to train those whom they employ to work in their business and indistries. SA A D SD

19. Students who pursue a vocational curriculum in high school should receive a certificate indicating their achievement rather than a a high school diploma with all rights and privileges appertaining thereto. SA A D SD

20. The quality of instruction in a vocational curriculum is of inferior quality to instruction in other high school curricula. SA A D SD

21. The high school curriculum should contain courses in English, math, science and others that are oriented to the world of work for students who can not be motivated by a more academic approach. SA A D SD

22. All high school students should be required to enroll in at least one vocational course. SA A D SD

23. Vocational programs in high school should be directed toward teaching vocational skills and attitudes from the classroom leaving the obtaining of occupational experience by the student to the time that the student completes school and is actually employed on the job. SA A D SD

24. There is a difference in the aims and objectives of vocational education compared to career education. SA A D SD

25. Students preparing for the world of work should develop competencies in communications, human relations, and other areas deemed important for employment. SA A D SD

26. Schools should work cooperatively with industry and other places of employment in preparing students for the world of work. SA A D SD

27. There is too much Federal and state control of vocational education for it to function effectively in the total school program. SA A D SD

28. Schools should afford opportunities for students to prepare for the world of work as well as prepare to enter college and for other pursuits in life. SA A D SD

29. One of the primary purposes of career education is for students to learn to make decisions in selecting a vocation. SA A D SD

30. Children in K-8 should become aware of different occupations and oriented to the world of work. SA A D SD

31. Vocational education is a passing fad brought about in an attempt to remedy the lack of academic achievement of students. SA A D SD

32. High school students enrolled in vocational education to prepare for employment should receive some related occupational experience. SA A D SD

33. All students in school should receive some training in career education. SA A D SD

34. Vocational education programs based on student needs and interests will help reduce dropout rates in high school. SA A D SD

APPENDIX C

Assignment For Treatment Group II

PROJECTS: (Choose one)

1. School "career day" (internal setups)
2. Recruitment (media)
3. Occupational choice
4. Pre-voc curr. development
5. On-job training guide
6. Placement services
7. Women in VTE (innovative approaches)
8. 3-5 year follow-up study

Any additional ideas that you may have for class projects should be approved by the instructors.

APPENDIX D

CONTRACT FOR CREDIT GROUP

PERFORMANCE CONTRACT FOR VTE 5860 VOCATIONAL EDUCATION WORKSHOP 1974-75 FOR HUMPHREY AND HOUSTON COUNTIES

B (3.0) Contract

1. Attend all teacher workshop sessions for the 1974-75 school year.
2. Participation in discussions.

B+ (3.5) Contract

1. Fulfill B contract.
2. Read and write an analytical report on a book in some vocational education area.

A (4.0) Contract

1. Fulfill B+ contract.
2. Read and write a second analytical report or write a short research paper using appropriate references on some phase of vocational education.

I will perform at _____ level.

_____
Professor

Name _____

Address _____

School _____

APPENDIX E

LETTER TO JURY OF SPECIALISTS

The University of Tennessee
College of Education
Knoxville 37916

July 5, 1974

TO: Selected Vocational Educators

FROM: Dr. Carroll Coakley
Dr. John Todd

RE: Validating An Attitudinal Inventory

We plan to offer an inservice training program in Houston and Humphreys counties to help prepare all teachers in those counties for conducting or cooperating with programs in vocational education made possible by the Comprehensive Vocational Education Act. We want to administer an attitude of all teachers toward vocational education. Twenty-eight attitudinal statements have been prepared. We feel that persons who are knowledgeable of vocational education and are favorable toward its purposes and procedures will agree with some of their statements and disagree with others. Please indicate whether you feel a statement is one that a person favorable toward vocational education would agree or disagree with. Follow instructions by circling your appropriate response. Make any comments you think necessary about any of the statements. If you think the wording is not clear, please indicate.

Please return the inventory to either Dr. Todd or Dr. Coakley at an early date. We are working under a very short time schedule.

CC-JT/bs

APPENDIX F

INSERVICE PROJECT CONSULTANTS

A.	Vocational Comprehensive Education Act: Its Impact and Implications	Mr. Bob Leeman, Chief, Administrative Assistant Division of Vocational Education 205 Cordell Hull Bldg. Nashville, TN
B.	Local Needs, Opportunities, and Projections	Mrs. Enid Barber Guidance Counselor Waverly Central High School Waverly, TN
C.	Introduction to Career Education--Presentation on Research Coordinating Unit--Introduction to Vocational Education	Dr. Jackie Elliott Vocational-Technical Education University of Tennessee Knoxville, TN
D.	Presentation of Local Job Opportunities	Mr. Bob Dickson Employment Security Office Clarksville, TN
E.	Presentation on Vocational Guidance Counseling	Dr. Charles Graves Comprehensive Vocational Education 243 Cordell Hull Bldg. Nashville, TN
F.	Presentation--Girls in Vocational Education	Dr. Betsy Heineman Director of Vocational Education Montgomery County Schools Clarksville, TN
G.	Presentation--Coordination of Vocational Programs	Mr. Jerry Scott Vocational-Technical Education University of Tennessee
H.	Presentation--Area Vocational-Technical Schools	Mr. Bob Barnett Vocational-Technical Education University of Tennessee Knoxville, TN

I. Presentation--The Instructional Development System and Its Role in Curriculum Development

Mrs. Sharon Cooper
Vocational-Technical Education
University of Tennessee
Knoxville, TN

VITA

James A. Slusher was born in Beverly, Kentucky, on March 8, 1945, the son of Mr. and Mrs. Albert Slusher. He attended public schools in Anderson County, Tennessee, and graduated from Clinton High School in 1963. The following year he entered Berea College in Kentucky until 1965. In September, 1965, he entered the Air Force for four years. He served in Texas, Vietnam, and Minnesota.

After discharge from the military in 1969 he entered the University of Tennessee and received the Bachelor of Science Degree in Distributive Education in 1971. In the fall of 1971, he was employed by the Knoxville City Schools as a Distributive Education Teacher Coordinator. He began work on a Master of Science Degree in Distributive Education and graduated in August, 1973.

In January, 1974, he received an Education Professions Development Act Fellowship and entered the graduate school at the University of Tennessee. He received the Doctor of Education Degree with a major in Vocational Technical Education in August, 1975. He is a member of Delta Pi Epsilon and other professional organizations.

He is married to the former Pearl Ann Palin of Duluth, Minnesota.

In September, 1975, he will accept the position of Distributive Education Teacher-Educator at the University of Georgia.