ATTITUDE CHANGE OF SELECTED ADVANTAGED AND LESS-ADVANTAGED OKLAHOMA YOUTH IN AN AGRICULTURAL CAREERS PROGRAM

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CHAPTER I

INTRODUCTION

In the United States there are over 20,000 available careers, diverse enough to interest everyone. Yet, with all these possible careers, 2.5 million young persons graduate from high school or college with no plans for a career, and few, if any, skills qualifying them for work. It costs the American people $28 billion to "educate" them to be potential failures (42).

According to Dr. S. P. Marland, Jr. (42), Commissioner of the U. S. Office of Education:

> Career education is a systematic way to acquaint students with the world of work in the elementary and junior high years and to prepare them in high school and college to enter and advance in a career field carefully chosen from among many (p. 1).

When vocational agriculture programs were started in our public schools the term "agriculture" was interpreted to mean strictly farming and those operations carried out on the farm in the production of food and fiber. Today agriculture has become a more inclusive term. Great strides in technology and production have changed agriculture into one of the most complex industries in the world. In America today, more than one-third of the working force is employed in agricultural related occupations. Many of these opportunities have come into existence in recent years. This new agriculture offers more than five hundred different kinds of jobs with new challenges and good salaries (5).

The American work ethic, as described by Curry (7), is currently undergoing a great period of change and evolution. Thousands of Americans are looking to the government for aid and financial assistance. Their work no longer seems to have any meaning in their lives and it does not provide them with satisfaction, pleasure, or achievement. The educational institution must assume the responsibility of asserting positive leadership in guiding the development of our new work ethic.

Curry (7, p. 5) stated further that "one of our biggest challenges in agricultural education is identifying students with negative attitudes toward work and providing appropriate attitudinal adjustment opportunities." One of the most valuable contributions that an agriculture teacher can perhaps make is helping each student to come to an understanding with his own attitude and helping him to take positive steps toward improving it. Each student needs to develop pride in good workmanship, ethical conduct, integrity, and honesty, and the agriculture teacher can aid this by giving all the positive reinforcement he can.

Rural youth in Oklahoma, as well as the United States, fall into many categories such as gifted and talented, handicapped, low income, and minority. Their attitudes toward work and occupations, especially agricultural occupations, vary greatly. It remains to be seen if students from third and fourth generation welfare families can change their attitudes so they are willing to work at an occupation for a living. Rising welfare rolls and unemployment are increasingly becoming national concerns. This picture could perhaps be altered by aiding students in becoming aware of their attitudes and then helping them create some attitudinal changes toward work and occupations. If it could be shown that attitudes toward work and occupations can be changed

in Oklahoma, this same strategy could work nationwide. Also, agriculture is the basic industry of the United States and one which has difficulty recruiting workers. If the agricultural career development curriculum, developed in earlier phases of a research project at Oklahoma State University, could be proved successful at changing attitudes, similar curriculums could be developed for all career areas with the aim of changing attitudes in all career areas across the nation.

This study involved phase VI of a jointly funded research project by the Oklahoma State Department of Vocational and Technical Education and the Agricultural Experiment Station of Oklahoma State University to construct, implement, and evaluate a career development program in agricultural occupations for advantaged and less-advantaged rural youth in Oklahoma. The first of the five previous phases of the project was begun in October of 1971 and involved the development of six specific agricultural occupations units, video tapes of workers in those occupations and a self discovery unit. These units and tapes were pilot tested in ninth grade vocational agriculture classes in six experimental schools across Oklahoma and compared to similar classes in control schools. The students that were taught the career development units showed a significant increase in knowledge of agricultural careers. Phase II of the project included development of additional units on general career clusters, agricultural occupations clusters, and decision making. An Agricultural Occupations Handbook was developed, and the OTIS Report included. The entire program was tested in eight ninth grade vocational agriculture classes across Oklahoma and achievement was compared to eight classes taught their traditional curriculum. Again students in the experimental groups showed significant increases

in knowledge of agricultural occupations.

Achievement was also compared among ethnic groups and between advantaged and less-advantaged groups to see if these characteristics affected gain. Based on descriptive mean differences, it was determined that the career development program was more effective with advantaged students than less-advantaged and equally effective with the different ethnic groups. However, due to a lack of sufficient numbers within the different groups, further statistical comparison was not possible.

Phase III included further revisions within the program and the development of a simulation game called "Pay Day". Eight schools were specifically chosen for high numbers of disadvantaged and different ethnic group students to facilitate further statistical comparisons of achievement. No significant differences were found between advantaged and less-advantaged or among the different ethnic groups. Low numbers of advantaged Black and Indian students precluded complete statistical analysis, and again descriptive information seemed to indicate advantaged and less-advantaged characteristics have more influence on achievement than do ethnic categories. The units were tested with one seventh-eighth grade class which made better achievement gains than any of the ninth grade classes tested in this phase.

The overall conclusion of the testing phases was that the program produced effective gains in knowledge about agricultural occupations in relation to personal characteristics and how decisions concerning occupations can be made. This was true for ninth grade vocational agriculture classes of advantaged, less-advantaged, and different ethnic group students.

Phase IV refined and developed additional curriculum materials,

reported on the program to the American Vocational Association, and published and distributed the curriculum to the vocational agriculture teachers in Oklahoma.

Phase V involved pilot testing an attitude measurement instrument to do item analysis and refine the instrument for use in measuring attitudes toward career development.

The development of the agricultural careers curriculum and validation of the attitude measurement instrument lead to the present study to measure the attitude change toward career development among advantaged and less-advantaged rural youth in Oklahoma.

Statement of the Problem

The accomplishments and results of the first five phases of the Oklahoma State University research project to construct, implement, and evaluate a career development program presented a need to determine if a favorable shift in attitudes toward career development in agricultural occupations could be accomplished among students, especially welfare recipients and other less-advantaged, through the career development program. Kemp (27) stated that students from low socio-economic backgrounds have not been given the vocational education opportunities they need. Vocational programs have not been organized with these students in mind, and in many cases the special needs of these young people have not been met. Hamilton (18) found that students with special needs were classified as being educationally deprived, socially disadvantaged, and economically deprived. Therefore, it would appear that students with special needs have no sound basis upon which to choose an occupation.

If the agricultural careers development curriculum could be proved successful at changing attitudes, similar curriculum could be developed with the aim of changing attitudes in all career areas across the nation.

Purpose of the Study

The purpose of this study was to measure any change in attitude toward career development which occurred as a result of the agricultural careers development curriculum taught to selected advantaged and less-advantaged youth among different ethnic groups in Oklahoma.

Objectives of the Study

In order to accomplish the purpose of this study, the following objectives were organized:

1. To measure attitude change toward career development in agricultural occupations among different ethnic groups.
2. To measure attitude change toward career development in agricultural occupations by advantaged students as compared to less-advantaged students.
3. To measure attitude change toward career development in agricultural occupations by seventh and eighth grade vocational agriculture students as compared to Vocational Agriculture I and Vocational Agriculture Occupational Training students.
4. To compare student attitude change toward career development in agricultural occupations between students in the agricultural careers development program and those not in it.

Scope of the Study

Twenty-two schools participated voluntarily in this study, representing all five districts in Oklahoma. Vocational agriculture teachers in seventeen of the schools agreed to participate as experimental schools. Six of the experimental schools were located in the Northeast district, two each were in the Northwest and Southwest districts, three were in the Central district and four were located in the Southeast district. Also, five schools, one in each district, agreed to serve as control schools.

This study consisted of five eighth grade vocational agriculture programs, two combination seventh and eighth grade vocational agriculture programs, thirteen Vocational Agriculture I programs, and two Vocational Agriculture Occupational Training programs.

Limitations of the Study

There were several factors that tended to limit the scope of the study which should be taken into consideration. These limitations are as follows:

1. The groups used for comparison, such as advantaged and less-advantaged students, different ethnic groups, different types of classes and different types of schools were artificially combined in order to be able to make the comparisons. It was realized that the combining of students from different classes into groups would increase the amount of variation within the group due to differences inherent in the different teachers, schools and communities.

2. The study was limited to voluntary intact classes.

3. The study was limited to seventh and eighth grade, Vocational Agriculture I, and Vocational Agriculture Occupational Training students.

4. The study was limited to twenty-two Oklahoma schools.

5. There was no way of determining the variability of the quality of teaching and the effect it might have had upon the outcome of the study.

6. There was a limited number of mentally and physically handicapped students.

7. All seventh and eighth grade vocational agriculture classes in Oklahoma were used as experimental schools in this study.

8. Due to a limited number of Oriental and "other" students, a complete statistical comparison among ethnic groups could not be made.

Definitions

1. Academically disadvantaged-- A student that has problems functioning in class and needs special attention or services.

2. Advantaged-- A student that is neither academically nor economically disadvantaged or mentally or physically handicapped.

3. Attitude-- The outward expression of a student's inclinations and feelings, prejudices and fears, thoughts, and convictions about any specific topic.

4. Economically disadvantaged-- A student whose parents have an annual income of less than $5500.

5. Ethnic group-- The race or culture of each student; each was identified as either Caucasian, American Indian, Black, Oriental, or "other".

6. Less-advantaged-- A student who is economically or academically disadvantaged or mentally or physically handicapped.

7. Mentally handicapped-- A student who is trainable mentally retarded, educationally mentally retarded, emotionally disturbed, or has learning disabilities.

8. Physically handicapped-- A student that is hard of hearing, deaf, speech impaired, visually impaired, or crippled.

9. Work-- The production of products or services of economic value for one's self or for other people.

10. Work ethic-- The effect on society resulting from the sum total of all attitudes toward work.

11. Work values-- A set of beliefs providing either a positive or negative orientation toward the identified components of work.

CHAPTER II

REVIEW OF LITERATURE

In this review of literature the following issues were considered:

1. Career awareness and exploration.
2. Work, work values, and work attitudes.
3. Factors affecting work attitudes.

Career Awareness and Exploration

One of the most vital life decisions a person makes is which career to pursue. Back in the early 1970's, the U.S. Office of Education suggested career education as a systematic way to acquaint with the world of work.

In 1973, according to Deuilio and Young (12):

> Eight out of every 10 American students were enrolled in either a college prep or a general education curriculum designed to prepare them for college. Only two of these eight students would ever obtain a baccalaureate degree. Consequently, eight out of the 10 students in this country were being prepared to do what in fact six of them would not do (p. 378).

Many students leave school not knowing what they want to do with their lives and there are also those who attempt to enter a preferred career only to find out that they are not qualified.

According to Mumphrey (35), the preparing of young workers for entrance into the job market is the greatest single problem facing educators today. A close look at the occupations in the world of work

today reveals that the range and scope of jobs are undergoing tremendous changes.

Hoppock (20) supported this view when he said:

> One cannot choose what one does not know, and many occupations are unknown to most of us. One may stumble into an appropriate occupation by sheer luck, but the wise choice of an occupation requires accurate information about the occupations available, what they require, and what they offer (p. 4).

Dr. Sidney P. Marland, Jr. (21), who was career education's chief promoter, described career education as:

> . . . a concept that says three things. First, that career education will be a part of the curriculum for all students, not just some. Second, that it will continue throughout a youngster's stay in school, from the first grade through senior high and beyond, if he so elects. And third, that every student leaving school will possess the skills necessary to give him a start in making a livelihood for himself and his family, even if he leaves before completing high school (p. 13).

Ridenour (39) pointed out that career development is a lifelong process. Before a person can advance to the next level, certain concepts must be understood. He further elaborated by describing the three stages a child goes through during this development:

> 1. The Awareness Stage, which covers the preschool period through grade six, is a stage during which the child becomes interested in what adults do. He is interested in knowing how he gets the goods and services which he enjoys. He also enjoys role playing many occupations with which he has become acquainted.
>
> 2. The Exploration Stage, which usually covers the middle or junior high school years (grades 7-9), is a time for some actual exploring of a variety of occupations. It is a time of self-assessment and of consideration of the various types of careers available to the individual. The student should, by this time, be able to identify who he is and what his interests and abilities are, to make decisions and be prepared to adjust and change those decisions, to formulate some preferences for particular occupations, and to identify various lifestyles he may wish to pursue. A tentative decision may be made by grade nine in order to begin stage three.

> 3. The Preparation Stage, from grade 10 through adulthood, will last as long as necessary for the acquisition of skills and knowledge needed to enter and progress through one's occupational career (p. 220).

For the purpose of this study, it is necessary to look primarily at the exploration stage, since seventh, eighth, Vocational Agriculture I, and Vocational Agriculture Occupational Training classes were used.

Craig (6) related that the student in career exploration has many unique learning needs and because of this a variety of teaching/learning procedures are necessary. Each of these teaching/learning procedures should include as many of the five senses as feasible. Audiovisual aids would seem to be essential. Simulation devices would also have tremendous value. Simulation games became quite popular in the late 1960's for use in the classroom. The following are the results of some recent research in simulation games.

In 1968, Zaltmen (46) tested persons who played the "Consumer Game." His findings showed that teenagers did better than adults and there was no significant difference in learning associated with family background. He also found that the more a student participated, the more he learned.

Also in 1968, Farran (15) discovered that underachievers showed greater improvement with simulation games based upon individual competition rather than group competition.

Anderson (1), in 1970, found that students were able to perform decision making skills better by using the simulation game method. He also discovered that the simulation game students retained factual information as effectively as the control group students.

Keller (26) said in a report to the National Conference on Career Education in 1972 that:

> Junior high schools involved in career education are moving toward a truly exploratory experimental program and the U.S. Office of Education's following fifteen career clusters are being modified to fit local situations (p. 4).

These career clusters into which all occupations can be conceptually placed are:

1. Agri-business and natural resources
2. Business and office
3. Communications and media
4. Consumer and homemaking education
5. Construction
6. Environmental control
7. Fine arts and humanities
8. Health
9. Hospitality and recreation
10. Manufacturing
11. Marine science
12. Marketing and distribution
13. Personal services
14. Public services
15. Transportation (21, p. 31).

The proposal made by the U. S. Office of Education is that elementary school children study all fifteen clusters when they are developing awareness of the world of work. Then, they choose a narrower, more limited area of clusters for deeper exploration at the middle school years (7-9), and then they select and train in an occupation at the senior high school or beyond.

Keller (26) also stated concerning the exploratory stage that:

> The junior high schools are attempting 1) to create an open learning environment; 2) to provide for both prescribed and discretionary exploratory experiences; 3) to stress human relations; 4) to relate economics to decision making; 5) to bring more adults into the learning environment from industry and labor who are important to youth; 6) to help youngsters become aware of lifestyle and vocational options; and 7) to assist students in developing tentative educational blueprints (p. 4).

Super and Overstreet (40) in their Career Pattern Study found the vocational interests of ninth graders too uncertain to recommend

specific vocational choices at that age. Super (34) later found, however, that the amount of vocational information retained by ninth graders related significantly to their career behavior at a later stage. Super implied that the career development goals of the middle school should be limited to teaching students to attain a planning orientation and to take responsibility for personal decisions.

The field of agriculture is very broad and diversified. The term "agricultural world of work" is defined by Lee (30, p. 3) as including "all of the occupational activities in the broad area of agriculture as found on farms, in agri-business, and related areas." Lee (30) discussed eight areas of occupations commonly included in the agricultural world of work by the Office of Education's publication Vocational Education and Occupations.

1. Agricultural Production. Occupations in agricultural production, commonly known as farming, involves the growing of plants and animals. A worker in this area must be skilled in using land, water, chemicals, machinery, and other inputs so that farm commodities are produced at the least cost. Skills in mechanics, financial management, plant and animal science, and other areas are needed. Workers in this area may own their own farms or work as hired persons on farms owned by other people. Farmers depend heavily on agri-business workers for supplies and services and to market the crops and livestock grown.

2. Agricultural Supplies/Services. These occupations focus on producing the chemicals, seed, animal medicines, and the like, needed by farmers. Agricultural supplies and services are of great importance to farmers. The farmers of today could not begin to reach the current level of production without supplies and services. A few examples of occupations in this area are: agricultural supplies salesman, feed mill worker, fertilizer warehouse worker, veterinarian, fertilizer truck driver, and sheep shearer.

3. Agricultural Mechanics. Occupations in this area focus on the design, construction, operation, and maintenance of agricultural mechanics. Many of the increases in farm efficiency are due to the use of machinery. The range of occupations in this area is from those with low skill requirements to those with very high education requirements. Examples of occupations include agricultural engineer, agricultural machinery mechanic, agricultural machinery mechanic's

helper, agricultural machinery operator, and agricultural machinery salesperson.

4. Agricultural Products/Processing. Workers in this area are involved in marketing, inspecting, and processing farm products. The occupations are very important in making available to consumers the kinds and forms of goods desired. Examples of occupations include those concerned with both food and nonfood products. Occupations in the food area include dairy plant worker, food technologist, grain sampler, livestock buyer, meat cutter, poultry inspector, and produce buyer. Occupations in which the workers are concerned with nonfood products are illustrated by tobacco grader, seed analyst, and cotton classer.

5. Natural Resources. Natural resources occupations are concerned with maintaining and improving natural resources, such as soil, water, fish, plants, and wildlife. Most of the occupations in this area involve working outdoors. The level of work ranges from occupations requiring very little skill or experience to those requiring considerable amounts. Examples include camp manager, fish hatchery worker, game warden, park attendant, soil conservationist, and wildlife biologist.

6. Forestry. Occupations in forestry are concerned with producing, managing, harvesting, and utilizing trees and tree products. The efficient production of lumber, paper, and related products, requires workers who are skilled and competent in their work. Different kinds of skills are required. Mechanical skills are needed in some occupations to operate chain saws, tractors, trucks, and sawmill equipment. A few of the occupations are forester, grader, logger, timber cruiser, and tree nursery worker.

7. Ornamental Horticulture. This area includes occupations concerned with the growth and use of plants for ornamental purposes. Several specialized areas are found in ornamental horticulture, such as greenhouse operation, nursery management, landscaping, and turf management. Examples of occupations are floral designer, tree pruner, groundskeeper, greenhouse assistant, and nursery worker.

8. Environmental Protection. The occupations in this area are concerned with protecting the environment. Many of the occupations are in water treatment, wastewater treatment and management, and air pollution control. This is an emerging area and has been included as a part of agriculture for only a short time. Several occupations in environmental protection are water treatment operator, air pollution control inspector, and wastewater treatment operator (pp. 9-11).

As teachers of vocational agriculture stress career implications, it is both natural and expected that students will want to discuss career decisions with teachers. When this occurs, teachers should be both

willing and able to listen to students. However, the central focus of the teacher must be on the teaching of vocational knowledge, skills, and attitudes. Teachers are limited, in terms of time and formal training, in their ability to help students make career decision.

Work, Work Values, and Work Attitudes

In the average person's twenty-four hour day his occupation absorbs one-third or more of his time. Work and occupation play an important part in determining the social status, values, attitudes, and style of living of an individual. Important as some of these are as determinants of occupation, they are in turn part determined by occupation. Occupation is not merely a means of earning a living, but also a way of life, a social role.

Kazanas (25) concluded in a 1973 historical study that because of the importance of work to each person and to society as a whole, every person should know and understand the meaning and value of work.

Kazanas (25) further concluded in this study on the meaning and value of work that:

> Vocational and technical education, as one of the major institutions in society charged with the preparation of people for work, must play a primary role in preparing the individual for life through work. This must include an understanding of the changes which will affect the meaning and values of the individual's work and will allow him to be a more effective participant within the work situation (pp. 60-61).

It is necessary to make a distinction between career, occupation, job, and work. According to Lee (30, p. 6), a career is "the course of a person's life as related to the world of work." A career may involve one or more occupations. The distinction between an occupation and a job is quite simple. Several people may have the same occupation but a

different job. Lee (30, p. 6) stated that a job is "any definite task, usually performed for pay."

The term "work" has various meanings. Day (10, p. 20) described work as "an instrumental activity with only extrinsic satisfaction." He contended, however, that work may have intrinsically rewarding aspects. According to the W. E. Upjohn Institute for Employment Research (11, p. 3), work is "an activity that produces something of value for other people." Wrenn (45, p. 27) stated that work is "actively calling for the expenditure of effort toward some defininte achievement or outcome."

The term "world of work" is also commonly used. It includes all of the jobs, and related activities, in which people are employed (30).

People work for different reasons. Most people naturally work for money to buy the necessities of life, however, there are other reasons. The importance of work cannot always be measured by how much money is involved. People have other needs which money cannot satisfy. Work serves to fulfill those needs. A majority of workers want to be recognized, to feel important, and to achieve. Work also aids in meeting the social and psychological needs of man.

A recent survey was undertaken by the Survey Research Center (11), University of Michigan, with the support of the Department of Labor. This significant study was based on a representative sample of 1,533 American workers at all occupational levels. When asked how important they regarded some 25 aspects of work, these workers ranked uppermost in importance:

1. Interesting work
2. Enough help and equipment to get the job done

3. Enough information to get the job done
4. Enough authority to get the job done
5. Good pay
6. Opportunity to develop special abilities
7. Job security
8. Seeing the results of one's work (p. 13).

Blai (2, p. 29) conducted a survey in 1970 which indicated that the main reason women work is "for mastery-achievement, and that this reason is closely followed by social need fulfillment." Another important work value was the interest generated by the activity. The least important work values indicated in this study were the achievement of dominance or recognition, and economic success.

According to Levinson (32), work contributes to self-esteem in two ways. The first is that through the inescapable awareness of one's effectiveness and competence in dealing with the aspects of work, a person gains a sense of control over both himself and his environment. The second way is that the job tells the worker day in and day out that he has something to offer of value to other people.

It is unrealistic to believe that if people were given sufficient funds most of them would stop working. A 1973 economic survey showed "that as people increase their earnings and acquire wealth they do not tend to decrease the time and energy that they invest in work" (11, pp. 8-9).

In another survey, when a cross-section of Americans were asked if they would continue working even if they received enough money to live comfortably without working, eighty per cent said they would keep on working (34).

People have different views of work. These views are rooted in ethics. Ethics establish how people will act and includes moral values and duties. Areas in which strong ethics have developed are religion, work, and sex.

Curry (7) related that the American work ethic is currently undergoing one of its greatest periods of change and evolution. Many Americans are looking to the government for support and many no longer find that their work provides them with satisfaction, pleasure, or achievement. Curry (7, p. 4) further said that "the educational institution has the responsibility to assert some positive leadership in directing the evolution of our new work ethic."

The work ethic in the United States varies slightly. People living in different areas of the country may have slightly different views of work from those in other regions. Ideas toward work are handed down from generation to generation, and gradual changes do occur.

According to Lee (30, p. 11), "work ethics are concerned with how people view work." Attitudes toward work vary and individuals have different views of the meaning of work.

There is considerable proof that work has the same meaning among the poor and among welfare recipients that it has for middle class Americans who are employed.

A 1971 study for the Labor Department on the work orientations of welfare recipients found that (11):

> The poor of both races and sexes identify their self-esteem with work to the same extent as non-poor persons do . . . Although people on welfare are as committed to the work ethic as middle class people, their attitudes differ in that they are not as confident that they can succeed on a job. After experiencing failure, they are more likely to accept dependence on welfare (p. 9).

A 1967 study in South Carolina of 513 underprivileged workers found that the poor did not differ significantly from the middle class in the kind of satisfaction that they derived from work (11).

Besides lending vitality to life, work helps establish the regularity of life. Without work, time becomes confused. According to Winick (43):

> When the duration of unemployment has been prolonged, unemployed workers progress from optimism through pessimism to fatalism. Attitudes toward the future and toward the community and home deteriorate (p. 274).

Winick also indicated that children of long-term unemployed workers and marginally employed workers consistently show poorer school grades. Winick (43) concluded that:

> There are so many unconscious and group needs that work meets, that unemployment may lead not only to generalized anxiety, but to free-floating hostility, somatic symptoms and the unconscious selection of some serious illnesses (p. 276).

In 1973, Todd (41) conducted a research project in Tennessee to determine whether high school vocational students who participated in different patterns of occupational experience exhibited differences in job satisfaction, school attendance, school achievement, and attitude toward preparation for work. Students who had been exposed to different occupational experiences did not differ significantly in relation to school achievement and attendance, job satisfaction, and attitude toward preparation for work. Differences did exist with attitudinal statements that dealt mainly with relevancy of courses toward preparing for employment and occupational choices. Students who lived in large metropolitan areas had a more unfavorable attitude toward preparation for work than those who resided in smaller towns, and students enrolled in their initial year of vocational education did not have as favorable

an attitude toward preparation for work as those who had been enrolled for two, three, or four years.

Curry (7) related that:

> One of the biggest challenges in agricultural education is identifying students with negative attitudes toward work and providing the appropriate attitudinal adjustment instruction. Aiding the individual student to come to grips with his own attitude and taking positive steps toward improving it may be one of the most valuable contributions that an agriculture teacher can make (p. 5).

Young people can learn a great deal from a study of the world of work. Many years of productive life lie ahead of every young person. Every youngster will have to make certain decisions. One of these decisions will be concerned with the kind of career he should pursue. These decisions can be made more realistically if one is knowledgeable about occupations. Young people must also consider their interests, attitudes, and capabilities in selecting an occupation.

Factors Affecting Work Attitudes

Factors affecting work attitudes which are discussed in this section were discovered through a 1976 study completed by Charles W. Curry (8). The majority of the sources used in this section were revealed in the thorough review of literature found in the study by Curry.

The work attitudes of individuals develop through relationships with many variables. Evidence proved that the family background of a student is a factor in the development of work attitudes. Parents assume an important role in establishing work attitudes within their children. In 1962, Kinnane and Pable (28) studied the relationship of work attitudes and the family background factors of 121 eleventh grade white males. Through biographical evidence, it was felt that the group

was representative of the high school population intellectually, socially, and educationally. This study showed a positive correlation between students with high social status and having intrinsic work attitudes when compared to students with families of lower social status.

Children of parents who have education beyond the high school level tend to seek additional education themselves. In 1969, Perrone (37) reported that students, both male and female, whose fathers had an education beyond high school continued their education after graduation from vocational programs. Also included in Perrone's study was a follow-up of 444 vocational school graduates which showed that students who continued their education placed more value on the intrinsic rewards achieved from work.

In 1971, Lee (31) conducted a study of the work orientations of 365 senior girls. She found that girls from families with high social status were less interested in the extrinsic rewards of work than were girls with low social status.

Another study on the work attitudes of eleventh grade students was conduced by Davis (9) in 1973. He found that the socio-economic levels of the students were significantly related to their work attitudes. Another interesting finding by Davis was that students who were members of a minority group had work attitudes that were considerably different from students who were not members of a minority group.

There was some evidence to support that sex is significantly related to work attitudues. Davis (9) found sex to be an influence on work values in his study of eleventh grade students. Kapes (24) found sex to be significantly related to occupational attitudes in a 1969 study involving both vocational and non-vocational ninth grade students.

In 1969, Wolfe (44) conducted a comprehensive study of 1870 working women. His findings supported the view that the work attitudes of females differ from those of males.

Dipboye and Anderson (13) came to a contradictory view in their 1959 study. They studied the occupational attitudes of more than 1000 students in the ninth and twelfth grades and found little, if any, difference in the attitude orientation toward work of males when compared with females.

Community size has been found to have a significant influence on work attitudes. Humbert (22) studied the work attitudes of 104 male and female welfare students in New Mexico in 1966. He found that students from urban areas attached more importance to work which involved the interests of others than did rural students. Lee (31), in her study of the work orientation of senior girls, found that girls from non-urban areas had a more extrinsic attitude orientation than those from larger cities.

Research on the relationship of intelligence and educational success on work attitudes indicated that intelligence is related to work attitudes. Higher achievers tend to be more interested in the intrinsic rewards of work. In 1965, Perrone (37) found higher achieving girls in junior high school to be more interested in intrinsic occupational satisfactions than less intelligent or poorer achieving girls. Kapes (24) showed that educational ability was related to occupational orientation in his study on the work attitudes of ninth grade students in vocational and technical curriculums.

There was very little evidence to show a positive relationship of curricular choice to work attitudes. After studying 1800 senior students

in vocational-technical and college preparatory programs, Dittenhafer (14) concluded that college preparatory students need a greater degree of intellectual endeavor and have a desire to work with people rather than things. On the other hand, vocational-technical students are more oriented toward things than people. Davis (9), however, in 1973, found that students in general education programs placed less importance on achievement than either college preparatory students or vocational-technical students. Dipboye and Anderson (13), in 1959, studied the post high school plans of 358 twelfth grade students in New York and found that vocational-technical students' value patterns were more similar than those of college bound students. They found, however, that college bound students placed more importance on interesting work than did vocational-technical students. In 1970, Garbin (16) found a significant difference in the work attitudes of young people from white collar backgrounds as compared with blue collar. He also found that most of the youth ranked work they liked, opportunities for advancement, security, and good pay as the most important work values.

There were several other factors that seemed to have an influence on work attitudes. In 1970, Bosworth and Anderson (3) compared the value orientation of ninth grade students in 1958 to ninth grade students in 1970. They found some consistency in their study when students in both groups ranked interesting work first and independence as last in their choice of work values.

In a 1966 study, Centers and Bugental (4) upheld their hypotheses that high level workers placed more emphasis on intrinsic values while low level workers placed more emphasis on extrinsic values. These findings based on the work attitudes of the total working population support

Maslow's need hierarchy. This study concluded that "individuals in the lower level occupations are more likely to be motivated by lower order needs because these are not sufficiently gratified to allow higher order needs to become prepotent" (p. 197).

Gottlieb (17) et al., in a 1972 study entitled "Youth and the Meaning of Work", found that the attitudes of college students toward work are changing. These young people placed less emphasis on money, power, and social status and more emphasis on the intrinsic aspects of work. These findings showed a changing work ethic, since the fathers of the students placed greater emphasis on money and job security.

In 1970, Pallone (36) studied the work attitudes of 531 high school students in New York state. The purpose of this study was to determine the degree of relationship between work attitudes and self-image. The following variables were used to analyze the data--race, sex, place of residence, and socio-economic status. Pallone's findings showed that the more negatively a person viewed himself, the greater importance he placed upon work attitudes and success on the job. At the same time the opposite was also found to be true. When the person viewed his self-image more positively, he placed less emphasis on work attitudes as a means of obtaining prestige, independence, and achievement.

Summary

In the early 1970's, the United States Office of Education suggested career education as a method by which to inform students about the world of work. A close look at the occupations in the work world today reveals that the range and scope of jobs are undergoing tremendous changes.

Career education encompasses three stages of development: 1) the awareness stage (preschool through grade six), 2) the exploration stage (grades 7-9), and 3) the preparation stage (grade 10 through adulthood). This study pertained to seventh, eighth, Vocational Agriculture I, and Vocational Agriculture Occupational Training programs, so the exploration stage was of primary importance.

The field of agriculture is very broad and diversified. The term "agricultural world of work" includes all of the activities in the broad area of agriculture. The eight areas of occupations commonly included in the agricultural world of work are: 1) agricultural production, 2) agricultural supplies/services, 3) agricultural mechanics, 4) agricultural products/processing, 5) natural resources, 6) forestry, 7) ornamental horticulture, and 8) environmental protection.

Work usually consumes at least one-third of a person's day. Most people naturally work for money, but the importance of work to an individual can not always be measured monetarily. Most people want to be recognized, to feel important, and to achieve. Because of the importance of work in our society and to each individual, the meaning and value of work must be taught, studied, and understood by every member of society.

People also have different views of work rooted in what is termed ethics. Ethics establish how people will act and includes moral values and duties. Curry (7) related that the American work ethic is presently in a stage of great change and evolution. More and more Americans are seeking aid from the government and fewer are finding that their work provides them with satisfaction, pleasure, or achievement.

Evidence showed that work has relatively the same meaning among

the disadvantaged as it does for the employed middle class American, however, the disadvantaged were not as confident that they could succeed on a job and had more difficulty accepting failure.

Besides lending vitality to living, work helps establish the regularity of life. Winick (48) showed that children of long-term unemployed and marginally employed workers consistently received poorer school grades.

Curry (7) related that leaders in agricultural education are facing a great challenge in trying to identify students with negative attitudes toward work and trying to provide appropriate attitudinal adjustment instruction.

Several factors were found to have an affect on an individual's work attitudes that he develops throughout life. These factors include family backgroud, sex, community size, intelligence and educational success, and curricular choice.

Attitudes are of the utmost importance, and since the forming of attitudes begins at a very early age, education must be able to offer youngsters a stronger desire to learn and better themselves. This would help create more willing and cooperative attitudes toward the preparation of and acquiring of gainful employment.

CHAPTER III

PROCEDURE AND DESIGN OF THE STUDY

The purpose of this chapter was to describe the procedures and design used in measuring any change in attitude toward career development which occurred as a result of the agricultural careers development curriculum taught to selected advantaged and less-advantaged youth among different ethnic groups in Oklahoma.

Development of the Instrument

The instrument used in this study for pre-testing and post-testing purposes was developed during phase V of the Oklahoma State University research project to construct, implement, and evaluate a career development program in agricultural occupations. Phase V involved pilot testing the attitude measurement instrument to do item analysis and refine the instrument for use in measuring attitudes toward career development.

The original instrument consisted of 87 statements concerning occupations taken from the Vocational Opinion Index (H.S.) by permission of Associates for Research in Behavior, Inc., Philadelphia, and 28 statements concerning agricultural occupations developed at Oklahoma State University. Based upon the item analysis, 67 of the Vocational Opinion Index and 23 of the agricultural items were retained. An additional 10 items were taken from the Work Attitude Scale by permission of Charles W. Curry, Virginia Polytechnic Institute and State University.

The items were categorized into six categories: general work attitudes (47 items), agricultural work attitudes (11 items), attitudes toward people in agriculture (14 items), attitudes toward more education (7 items), attitudes toward career choice (10 items) and attitude toward life (11 items). Items were placed into these categories by logical observation and confirmed by the item analysis. Categorization of items and an indication of whether the item was stated positively or negatively is shown on the instrument in the appendix.

For purposes of this study all items on the front page of the instrument, excluding race or culture, and the final two items on the last page were not used.

In-Service Workshop for Teachers

An in-service workshop for vocational agriculture teachers was conducted during the summer of 1976 to review the experienced teachers and acquaint new teachers with the contents and approaches of the agricultural careers curriculum and the attitude measurement program associated with it. The workshop consisted of two sessions and there were approximately sixty vocational agriculture teachers in attendance. Following completion of the workshop, teachers in attendance were interviewed to determine if they were interested in teaching the agricultural careers curriculum and participating in the attitude measurement program.

Selection of Schools

In this study, seventeen vocational agriculture teachers representing all five districts in Oklahoma indicated a sincere interest in

teaching the curriculum and agreed to participate as experimental schools in the study. Six of the experimental schools were located in the Northeast district, two each were in the Northwest and Southwest districts, three were in the Central district, and four were located in the Southeast district. Also, five schools, one in each district, agreed to serve as control schools. Involved in the study at the twenty-two schools were five eighth grade vocational agriculture programs, two combination seventh and eighth grade vocational agriculture programs, thirteen Vocational Agriculture I programs, and two Vocational Agriculture Occupational Training programs. Table I shows a distribution of all experimental and control schools according to their district and vocational agriculture class which was involved in this study.

Administration of Pre-Tests

All vocational agriculture teachers involved in this study were contacted by telephone in August, 1976, prior to the beginning of school to set up dates for administering the pre-tests. The students in the experimental vocational agriculture classes were pre-tested during the first month of school between August 16 and September 17, 1976, prior to the teaching of the agricultural careers curriculum. Students in the control vocational agriculture classes were also tested during the same time period.

Teaching of the Agricultural Careers Development Curriculum

Following administration of the pre-tests, vocational agriculture

TABLE I

DISTRIBUTION OF EXPERIMENTAL AND CONTROL SCHOOLS ACCORDING TO DISTRICT AND VOCATIONAL AGRICULTURE CLASS

School	Type School	Type Class	District
Ft. Towson	Experimental	Vo. Ag. I	Southeast
Hugo	Experimental	Vo. Ag. I	Southeast
Boswell	Experimental	Vo. Ag. I	Southeast
Vanoss	Experimental	VAOT	Southeast
Boley	Experimental	Vo. Ag. I	Northeast
Okmulgee	Experimental	Vo. Ag. I	Northeast
Jenks	Experimental	Vo. Ag. I	Northeast
Oaks	Experimental	Vo. Ag. I	Northeast
Glencoe	Experimental	Vo. Ag. I	Central
Anadarko	Experimental	VAOT	Southwest
Alluwe	Experimental	Eighth Grade	Northeast
Wann	Experimental	Eighth Grade	Northeast
Braman	Experimental	Seventh and Eighth Grade	Northwest
Ft. Supply	Experimental	Eighth Grade	Northwest
Clinton	Experimental	Eighth Grade	Southwest
Lindsay	Experimental	Eighth Grade	Central
Paoli	Experimental	Seventh and Eighth Grade	Central
Grant	Control	Vo. Ag. I	Southeast
Jay	Control	Vo. Ag. I	Northeast
Tonkawa	Control	Vo. Ag. I	Northwest
Thomas	Control	Vo. Ag. I	Southwest
Lexington	Control	Vo. Ag. I	Central

teachers in the experimental schools were asked to teach the agricultural careers curriculum to their seventh, eighth, Vocational Agriculture I, and Vocational Agriculture Occupational Training students, while teachers in the control schools taught the traditional vocational agriculture curriculum. These grades and ages were used because, according to developmental theorists, this is the time in many students' lives when they need more information about occupations. Super (40) stated:

> At this stage of development when adolescents are beginning to be called upon to make a series of pre-vocational and vocational choices they need experiences which help them to develop better self-understanding and self-acceptance.
>
> Furthermore, many students do not make good use of the resources available to them to aid in orientation to careers. They tend to know something about the requirements of the occupations to which they aspire, but little about the duties, conditions of work, and opportunities in preferred occupations (p. 153).

The vocational agriculture teachers in the experimental schools had the option of teaching the agricultural careers curriculum as a block of four to six weeks or in conjunction with other agricultural units to be finished by December 17, 1976.

Administration of the Post-Tests

Each of the vocational agriculture teachers at the schools involved in this study were contacted by telephone again in early December, 1976, to arrange dates in which post-tests would be administered to the students in the various experimental and control vocational agriculture classes. After having studied the agricultural careers curriculum, the students in the experimental schools were post-tested during the month of January, 1977. Control school students were also post-tested during the same period of time.

Identification of Students According to Ethnic Groups and Advantaged-Less-Advantaged

The students in all schools were grouped ethnically and identified as less-advantaged if they were mentally or physically handicapped or economically or academically disadvantaged. Students who were not identified as less-advantaged were listed as advantaged. The different ethnic groups represented were Caucasian, American Indian, Black, Oriental, and "other". Mentally handicapped students were either trainable mentally retarded, emotionally disturbed, educationally mentally retarded, or had learning disabilities. Students were identified as physically handicapped if they were hard of hearing, deaf, speech impaired, visually impaired, or crippled. Students that were academically disadvantaged were those who had problems functioning in class and needed special attention or services. A student whose parents earned an annual income of less than $5500 was identified as economically disadvantaged. Classification of advantaged or less-advantaged was done by the teachers in each of the schools based on United States Office of Education criteria when pre-tests were administered. During the time in which post-tests were administered, categorization of advantaged or less-advantaged was cross-checked for each student in all schools.

Statistical Analysis

Descriptive statistics were used in this study to describe changes in attitude. Analysis of variance was also used to make comparisons of attitude change between experimental and control schools, advantaged and

less-advantaged students, different ethnic group students, and seventh and eighth grade vocational agriculture students as compared to Vocational Agriculture I and Vocational Agriculture Occupational Training students.

According to Popham (38):

> Analysis of variance, in its most basic form, is nothing more than a clever statistical method of testing for significant differences between means of two or more groups. Typically, the performance of these groups can be considered to represent results of the treatment by an independent variable whose possible relationship to a dependent variable is being studied.
>
> . . . In essence, the method employed in the Analysis of variance is to compute the variances of the separate groups being tested for mean differences. The scores of all subjects in the subgroups are then artificially combined into one total group. This is done by regrouping, for analysis purposes, all of the scores in the several groups as though they were one group. If the variance of the group is approximately the same as the average variance of the separate subgroups, then there is no significant difference. If, on the other hand, the average variance of the artificially combined total group is considerably larger than the average variance of the separate subgroups then a significant difference exists between two or more of the subgroups.
>
> . . . The next step in the analysis is to divide the between mean squares by the within mean squares (often called the 'error' term). The result of this division yields a value referred to as F.
>
> Once the value of F has been obtained, the statistician may check its significance through the use of a special table of the sampling distribution of F. If the obtained F is larger than the table F value, the researcher concludes that a significant difference exists between the means of two or more of the subgroups (pp. 152-154).

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The primary purpose of this study was to measure any change in attitude toward career development which occurred as a result of the agricultural careers development curriculum taught to selected advantaged and less-advantaged youth among different ethnic groups in Oklahoma. In order to accomplish the purpose of this study, the following objectives were organized:

1. To measure attitude change toward career development in agricultural occupations among different ethnic groups.
2. To measure attitude change toward career development in agricultural occupations by advantaged students as compared to less-advantaged students.
3. To measure attitude change toward career development in agricultural occupations by seventh and eighth grade vocational agriculture students as compared to Vocational Agriculture I and Vocational Agriculture Occupational Training students.
4. To compare student attitude change toward career development in agricultural occupations between students in the agricultural careers development program and those not in it.

In referring to the average change in response between the pre-test and post-test in the tables in this chapter, it should be remembered that the following scale was used as an opinion index in the attitude measurement instrument.

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree
1	2	3	4	5

The absolute limits of each category were as follows:

1. Strongly Agree 1.0 - 1.49
2. Somewhat Agree 1.5 - 2.49
3. Neither 2.5 - 3.49
4. Somewhat Disagree 3.5 - 4.49
5. Strongly Disagree 4.5 - 5.0

Analysis of the Data

Table II presents a summary of the average change in response between the pre-test and post-test for different ethnic group students that were taught the agricultural careers curriculum.

Table II illustrates that there were 218 Caucasians, thirty-six Indians, thirty-four Blacks, one Oriental, and three "other" students that were taught the agricultural careers curriculum. Average changes in response were computed for each of the seven career development concepts for each of the different ethnic groups represented. The career development concepts included general work attitude, agricultural work attitude, attitude toward people in agriculture, attitude toward more education, attitude toward career choice, attitude toward life, and overall attitude. Due to a lack of Oriental and "other" students, realistic comparisons with other ethnic groups could not be made.

Data in table II showed that Caucasians had the largest positive

TABLE II

AVERAGE CHANGE IN RESPONSE BETWEEN PRE- AND POST-TEST FOR DIFFERENT ETHNIC GROUP STUDENTS TAUGHT THE AGRICULTURAL CAREERS CURRICULUM

		Change By Career Development Concept						
Ethnic Group	Type Average Response	General Work Attitude	Agricultural Work Attitude	Attitude Toward People in Agriculture	Attitude Toward More Education	Attitude Toward Career Choice	Attitude Toward Life	Overall Attitude
Caucasian N=218	Pre-Test	2.4470	2.1605	2.0754	1.8788	2.4119	2.2519	2.2987
	Post-Test	2.3047	1.9854	1.9830	1.8093	2.2936	2.1351	2.1701
	Change	.1423	.1751	.0924	.0695	.1183	.1168	.1286
Indian N=36	Pre-Test	2.6241	2.5707	2.3194	2.0119	2.7139	2.3636	2.5131
	Post-Test	2.6087	2.3283	2.2658	2.1548	2.6889	2.3737	2.4803
	Change	.0154	.2424	.0536	-.1429	.0250	-.0101	.0328
Black N=34	Pre-Test	2.7634	2.6283	2.4958	2.2017	2.7853	2.4465	2.6391
	Post-Test	2.7071	2.3315	2.3046	2.2563	2.7059	2.3716	2.5409
	Change	.0563	.2968	.1912	-.0546	.0794	.0749	.0982
Oriental N=1	Pre-Test	1.8723	2.0000	1.4286	1.7143	2.3000	1.4545	1.8100
	Post-Test	1.5106	2.0909	1.5000	1.5714	1.6000	1.5454	1.5900
	Change	.3617	-.0909	-.0714	.1429	.7000	-.0909	.2200
Other N=3	Pre-Test	2.8440	2.9394	3.0238	2.4286	2.8667	2.5758	2.8233
	Post-Test	2.9078	2.8788	2.6667	2.6667	2.8667	2.6061	2.8166
	Change	-.0638	.0606	.3571	-.2381	0	-.0303	.0167
Overall Change N=292		.1094	.1896	.0975	.0239	.0986	0968	.1081

mean gain (.1423) in general work attitude, although Blacks and Indians had positive changes also. In agricultural work attitude, Blacks showed a more positive change in attitude with an average gain between pre- and post- tests of .2968 as compared to an increase of .2424 for Indians and .1751 for Caucasian students. Blacks also had a higher mean change (.1912) in attitude toward people in agriculture while Caucasians and Indians had positive, but smaller average increases. It was interesting to note that both Blacks and Indians changed slightly negatively in attitude toward more education. All ethnic groups showed a positive mean gain in attitude toward career choice, but in attitude toward life, Indians had a very slight negative attitudinal mean change between pre- and post- tests. It was further illustrated in table II that all ethnic groups had a positive average gain in overall attitude.

Summarized in table III are the results derived from an analysis of variance of test gains among ethnic group students taught the agricultural careers curriculum for each of the seven career development concepts. The F value of 2.4085 indicates that there was a statistically significant difference at the .05 level of significance among the average changes in response made by the different ethnic groups in terms of general work attitude. The F values associated with agricultural work attitude, attitude toward people in agriculture, attitude toward more education, attitude toward career choice, attitude toward life, and overall attitude indicated that there was not a statistically significant difference, at the .1 level of significance or below, among average increases made by the different ethnic groups.

As noted in table IV, the average change in response between the pre-test and post-test for advantaged and less-advantaged students

TABLE III

ANALYSIS OF VARIANCE OF TEST GAINS AMONG ETHNIC GROUP STUDENTS TAUGHT THE AGRICULTURAL CAREERS CURRICULUM

Concept	Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Significance Level
General Work Attitude	Between Races	4	.7937	.1984	2.4085	.0488**
	Within Races	287	23.6441	.0824		
Agricultural Work Attitude	Between Races	4	.6550	.1638	.5290	.7178
	Within Races	287	88.8439	.3096		
Attitude Toward People in Agriculture	Between Races	4	.6001	.1500	.6379	.6391
	Within Races	287	67.4969	.2352		
Attitude Toward More Education	Between Races	4	1.8822	.4705	1.3657	.2448
	Within Races	287	98.8807	.3445		
Attitude Toward Career Choice	Between Races	4	.6775	.1694	.6808	.6088
	Within Races	287	71.4097	.2488		
Attitude Toward Life	Between Races	4	.5961	.1490	.7658	.5505
	Within Races	287	55.8474	.1946		
Overall Attitude	Between Races	4	.3375	.0844	1.1749	.3215
	Within Races	287	20.6139	.0718		

**Probability < .05

TABLE IV

AVERAGE CHANGE IN RESPONSE BETWEEN PRE- AND POST-TEST FOR ADVANTAGED AND LESS-ADVANTAGED STUDENTS TAUGHT THE AGRICULTURAL CAREERS CURRICULUM

Group	Type Average Response	Change By Career Development Concept						
		General Work Attitude	Agricultural Work Attitude	Attitude Toward People in Agriculture	Attitude Toward More Education	Attitude Toward Career Choice	Attitude Toward Life	Overall Attitude
Advantaged N=222	Pre-Test	2.4494	2.1751	2.0816	1.8887	2.4143	2.2342	2.3013
	Post-Test	2.3294	2.0054	1.9842	1.8341	2.3221	2.1395	2.1891
	Change	.1200	.1697	.0974	.0546	.0922	.0947	.1122
Less-Advantaged N=70	Pre-Test	2.7052	2.5701	2.4133	2.0980	2.7614	2.4545	2.5850
	Post-Test	2.5979	2.2675	2.2592	2.1429	2.6157	2.3610	2.4580
	Change	.1073	.3026	.1541	-.0499	.1457	.0935	.1270
Overall Change N=292		.1094	.1896	.0975	.0239	.0986	.0968	.1081

taught the agricultural careers curriculum was computed for each of the seven career development concepts. Table IV shows that there were 222 advantaged and seventy less-advantaged students in the agricultural careers program. In terms of general work attitude, agricultural work attitude, and attitude toward people in agriculture, both groups showed positive average changes. However, it should be noted that less-advantaged students had a higher mean increase (.3026) in agricultural work attitude. It was also interesting to note that less-advantaged students changed very slightly negatively in attitude toward more education while the advantaged group had a positive average gain. Both social groups showed positive attitudinal changes between pre- and post- tests in attitude toward career choice and life. It should be noted that less-advantaged students posted a slightly higher (positive) mean increase in overall attitude with a gain of .1270 as compared to .1122 for advantaged students.

The results obtained from an analysis of variance of test gains between advantaged and less-advantaged students taught the agricultural careers curriculum are summarized in table V. A separate analysis of variance test was computed for each of the seven concepts.

The data in table V shows that there was a statistically significant difference in attitude toward career choice, between average changes made by the advantaged and less-advantaged groups at the .01 level of significance. It was further illustrated in table V that there was a significant difference at the .05 level of significance between mean increases made by the different groups in agricultural work attitude. Table V also reveals that there was not a statistically significant difference in average gains made by the two groups at the .1 level of

TABLE V

ANALYSIS OF VARIANCE OF TEST GAINS BETWEEN ADVANTAGED AND LESS-ADVANTAGED STUDENTS TAUGHT THE AGRICULTURAL CAREERS CURRICULUM

Concept	Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Significance Level
General Work Attitude	Between Groups	1	.0222	.0222	.2609	.7781
	Within Groups	290	24.2584	.0851		
Agricultural Work Attitude	Between Groups	1	1.3135	1.3135	4.3536	.0210**
	Within Groups	290	85.9716	.3017		
Attitude Toward People in Agriculture	Between Groups	1	.1822	.1822	.7939	.4485
	Within Groups	290	65.4057	.2295		
Attitude Toward More Education	Between Groups	1	.7343	.7343	2.1334	.1231
	Within Groups	290	98.0886	.3442		
Attitude Toward Career Choice	Between Groups	1	1.8224	1.8224	7.6604	.005***
	Within Groups	290	67.8104	.2379		
Attitude Toward Life	Between Groups	1	.1293	.1293	.6584	.5033
	Within Groups	290	55.9716	.1964		
Overall Attitude	Between Groups	1	.0711	.0711	.9986	.3663
	Within Groups	290	20.2838	.0712		

**Probability < .05
***Probability < .01

significance in general work attitude, attitude toward people in agriculture, attitude toward more education, attitude toward life, and overall attitude.

The data presented in table VI provides a summary of the average change in response between the pre- and post- test for students in the different types of experimental classes and for experimental schools and control schools. The average change for each concept was computed for all experimental schools combined, all control schools combined, and for seventh and eighth grade, Vocational Agriculture I, and Vocational Agriculture Occupational Training students as separate classes.

In table VI, it is shown that there were two Vocational Agriculture Occupational Training classes, eight Vocational Agriculture I classes, and seven seventh and eighth grade vocational agriculture classes that were in the agricultural careers program. Table VI also illustrates that there were 113 seventh and eighth grade, 160 Vocational Agriculture I, and nineteen Vocational Agriculture Occupational Training students that were taught the agricultural careers curriculum.

Data in table VI shows that in general work attitude all three classes had a positive average gain with the seventh and eighth grade vocational agriculture students having the most change at .1457. Seventh and eighth grade students also showed the highest mean change in terms of agricultural work attitude with a positive gain of .2349. It should also be noted that in attitude toward people in agriculture, Vocational Agriculture Occupational Training students showed a very slightly negative average change between the pre-test and post-test as compared to positive mean increases made by seventh and eighth grade

TABLE VI

AVERAGE CHANGE IN RESPONSE BETWEEN PRE- AND POST-TEST FOR DIFFERENT EXPERIMENTAL CLASSES, EXPERIMENTAL SCHOOLS AND CONTROL SCHOOLS

Type School and Class	Type Average Response	Change By Career Development Concept						
		General Work Attitude	Agricultural Work Attitude	Attitude Toward People in Agriculture	Attitude Toward More Education	Attitude Toward Career Choice	Attitude Toward Life	Overall Attitude
Experimental Schools Number Schools=17								
VAOT	Pre-Test	2.3057	2.0478	2.0564	2.0150	2.2158	2.2679	2.2089
N=19	Post-Test	2.2430	1.9617	2.0827	1.9399	2.1684	2.0909	2.1442
	Change	.0627	.0861	-.0263	.0752	.0474	.1770	.0647
VoAg I	Pre-Test	2.5522	2.3585	2.2473	2.0170	2.5400	2.3307	2.4284
N=160	Post-Test	2.4629	2.1778	2.1692	2.0170	2.4588	2.2500	2.3334
	Change	.0893	.1807	.0781	0	.0812	.0807	.0950
Seventh &	Pre-Test	2.4690	2.1899	2.0588	1.8129	2.4832	2.2333	2.3104
Eighth	Post-Test	2.3233	1.9550	1.9033	1.7636	2.3398	2.1343	2.1657
N=113	Change	.1457	.2349	.1555	.0493	.1434	.0990	.1448
Combined Experimental Schools								
N=292	Pre-Test	2.5042	2.2671	2.1582	1.9358	2.4924	2.2917	2.3643
	Post-Test	2.3948	2.0775	2.0607	1.9119	2.3938	2.1949	2.5262
	Change	.1094	.1896	.0975	.0239	.0986	.0968	.1081
Control Schools	Pre-Test	2.4876	2.1848	2.2062	1.9217	2.4145	2.3445	2.3523
Number Schools=5	Post-Test	2.3857	2.1760	2.1117	1.8341	2.3419	2.2683	2.2684
N=62	Change	.1019	.0088	.0945	.0876	.0726	.0762	.0839

and Vocational Agriculture I students. It was interesting to note that in attitude toward more education, Vocational Agriculture I students as a group showed no attitudinal change while each of the other types of classes had positive gains. All three types of vocational agriculture classes had positive average increases in attitude toward career choice with seventh and eighth grade students having the highest change (.1434). In attitude toward life, Vocational Agriculture Occupational Training students showed the largest positive mean gain (.1770) although seventh and eighth grade vocational agriculture students and Vocational Agriculture I students had positive changes also. Concerning overall attitude change, each of the different types of classes had positive average increases with seventh and eighth grade students having the largest change with a mean gain of .1448.

Table VI further illustrates the average change in response between the pre-test and post-test for students in experimental and control schools. Table VI reveals that there were sixty-two students in five control schools and 292 students in the seventeen experimental schools for a combined total of 354 students in twenty-two schools.

As shown in table VI, experimental and control schools both showed positive mean changes in terms of general work attitude, attitude toward people in agriculture, attitude toward career choice, and attitude toward life, although the experimental schools had slightly higher average gains in each. Experimental schools had a positive and rather high average change of .1896 in agricultural work attitude as compared to only a slight increase of .0088 for control schools. The opposite was true in terms of attitude toward more education, as control schools showed a greater positive change (.0876) than experimental

schools. In comparing average gains of experimental and control schools in overall attitude change, the students taught the agricultural careers curriculum had a positive mean change of .1081 while students taught the traditional vocational agriculture curriculum showed an average increase of .0839.

The results derived from an analysis of variance of test gains among Vocational Agriculture Occupational Training, Vocational Agriculture I, and seventh and eighth grade vocational agriculture classes for each of the seven career development concepts are summarized in table VII. Although table VI revealed a difference in average attitude changes among the three different types of classes, no significant difference was found (as shown in table VII) at the .1 level of significance among the same for any of the career development concepts.

Table VIII presents a summary of the findings obtained from an analysis of variance of test gains between experimental and control schools. A separate analysis of variance test was computed for each of the career development concepts which included general work attitude, agricultural work attitude, attitude toward people in agriculture, attitude toward more education, attitude toward career choice, attitude toward life, and overall attitude.

It is shown in table VIII that there was a statistically significant difference between mean gains made by experimental and control schools at the .1 level of significance in agricultural work attitude. The F values for each of the remaining six concepts indicated that there was not a significant difference between the average attitudinal changes at the .1 level of significance.

TABLE VII

ANALYSIS OF VARIANCE OF TEST GAINS AMONG VOCATIONAL AGRICULTURE CLASSES TAUGHT THE AGRICULTURAL CAREERS CURRICULUM

Concept	Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Significance Level
General Work Attitude	Between Classes	2	.2554	.1277	1.0562	.3754
	Within Classes	14	1.6928	.1209		
Agricultural Work Attitude	Between Classes	2	.4976	.2484	.5591	.5885
	Within Classes	14	6.2303	.4450		
Attitude Toward People in Agriculture	Between Classes	2	.7808	.3904	.8158	.5344
	Within Classes	14	6.6986	.4785		
Attitude Toward More Education	Between Classes	2	.2149	.1074	.5222	.6090
	Within Classes	14	2.8802	.2057		
Attitude Toward Career Choice	Between Classes	2	.3794	.1897	.4280	.6648
	Within Classes	14	6.2046	.4432		
Attitude Toward Life	Between Classes	2	.1422	.0711	.2430	.7897
	Within Classes	14	4.0977	.2927		
Overall Attitude	Between Classes	2	.2564	.1282	1.0962	.3624
	Within Classes	14	1.6371	.1169		

TABLE VIII

ANALYSIS OF VARIANCE OF TEST GAINS BETWEEN EXPERIMENTAL AND CONTROL SCHOOLS

Concept	Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Significance Level
General Work Attitude	Between Schools	1	.0028	.0028	.0258	.8682
	Within Schools	20	2.1915	.1096		
Agricultural Work Attitude	Between Schools	1	1.6723	1.6723	3.8350	.0614*
	Within Schools	20	8.7215	.4361		
Attitude Toward People in Agriculture	Between Schools	1	.0005	.0005	.0010	.9741
	Within Schools	20	9.8178	.4909		
Attitude Toward More Education	Between Schools	1	.2074	.2074	1.1013	.3072
	Within Schools	20	3.7668	.1883		
Attitude Toward Career Choice	Between Schools	1	.0347	.0347	.0984	.7548
	Within Schools	20	7.0595	.3530		
Attitude Toward Life	Between Schools	1	.0216	.0216	.0939	.7598
	Within Schools	20	4.6057	.2303		
Overall Attitude	Between Schools	1	.0300	.0300	.3037	.5937
	Within Schools	20	1.9762	.0988		

*Probability $<$ .10

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to present a summary of the purpose of the study, specific objectives, rationale for the study, design of the study, and major findings of the research. Conclusions and recommendations presented in this chapter are based upon the analysis of the data and observations made.

Summary

Purpose of the Study

The major purpose of this study was to measure any change in attitude toward career development which occurred as a result of the agricultural careers development curriculum taught to selected advantaged and less-advantaged youth among different ethnic groups in Oklahoma.

Specific Objectives of the Study

In order to accomplish the purpose of this study, the following objectives were organized:

1. To measure attitude change toward career development in agricultural occupations among different ethnic groups.
2. To measure attitude change toward career development in agricultural occupations by advantaged students as compared

to less-advantaged students.

3. To measure attitude change toward career development in agricultural occupations by seventh and eighth grade vocational agriculture students as compared to Vocational Agriculture I and Vocational Agriculture Occupational Training students.
4. To compare student attitude change toward career development in agricultural occupations between students in the agricultural careers development program and those not in it.

Rationale for the Study

This study involved phase VI of a jointly funded research project by the Oklahoma State Department of Vocational and Technical Education and the Agricultural Experiment Station of Oklahoma State University to construct, implement and evaluate a career development program in agricultural occupations for advantaged and less-advantaged rural youth in Oklahoma.

The first of the five previous phases of the research project was begun in October of 1971 and involved the development of six specific agricultural occupations units, video tapes of workers in those occupations and a self discovery unit.

Phase II of the project included development of additional units on general career clusters, agricultural occupations clusters, and decision making. An Agricultural Occupations Handbook was developed, and the OTIS Report included.

Phase III included further revisions within the program and the development of a simulation game called "Pay Day".

Phase IV refined and developed additional curriculum materials,

reported on the program to the American Vocational Association, and published and distributed the curriculum to the vocational agriculture teachers in Oklahoma.

Phase V involved pilot testing an attitude measurement instrument to do item analysis and refine the instrument for use in measuring attitude toward work and agricultural occupations.

The accomplishments and results of the first five phases of the Oklahoma State University research project to construct, implement, and evaluate a career development program presented a need to determine if a favorable shift in attitudes toward career development in agricultural occupations could be accomplished among advantaged and less-advantaged students through the career development program.

Design of the Study

After conducting a review of selected literature, a specific plan was developed so that the purpose and objectives of this study could be accomplished.

An in-service workshop for vocational agriculture teachers was conducted during the summer of 1976 to review the experienced teachers and acquaint new teachers with the contents and approaches of the agricultural careers curriculum and the attitude measurement program associated with it. Following completion of the workshop, seventeen schools were selected to participate as experimental schools and five as control schools in the research project, entirely on a voluntary basis.

Pre-tests were administered to all schools involved in the study during the first month of the 1976-1977 school year. Following administration of the pre-tests, vocational agriculture teachers in the

experimental schools were asked to teach the agricultural careers curriculum while teachers in the control schools taught the traditional vocational agriculture curriculum.

After having studied the agricultural careers curriculum, the students in the experimental schools were post-tested during the spring of 1977. Students in the control schools were post-tested during the same period of time.

The students in all schools were grouped ethnically and identified as advantaged or less-advantaged by the teachers in each of the schools according to United States Office of Education criteria.

Finally, data from the pre-test and post-test were compiled and a statistical analysis was conducted using descriptive statistics and analysis of variance.

Major Findings of the Research

The major findings of this study, based upon the analysis of the data presented in Chapter IV, are summarized as follows:

1. It was found that all average responses on the pre-test and post-test for all career development concepts fell within the attitudinal categories of neutral or somewhat positive.

2. There was a statistically significant difference found among ethnic groups at the .05 level for general work attitude change. Caucasians had the largest average change (.1423) between pre- and post-test for this concept, followed by Blacks (.0563) and Indians (.0154), respectively. There were no statistically significant differences among ethnic groups for attitude change on any of the other career development concepts.

3. It was found that all ethnic groups had their largest average change between pre- and post-test in agricultural work attitude. Blacks had the most positive increase (.2968) followed in order by Indians and Caucasians.

4. Findings showed that for attitude toward more education, Indians and Blacks had slight negative average changes (-.1429, -.0546). Indians also recorded a very slight negative average change (-.0101) between pre- and post-test for attitude toward life.

5. In overall attitude change, it was found that all ethnic groups had positive mean changes. Caucasians had the largest average gain (.1286) followed by Blacks (.0982) and Indians (.0328), respectively.

6. A statistically significant difference was also found at the .05 level of significance between the average changes in response of advantaged and less-advantaged students in agricultural work attitude. Less-advantaged students showed the highest positive change in this concept with a gain of .3026 as compared to an increase of .1697 for advantaged students.

7. A statistically significant difference was found at the .01 level of significance between the average changes in response of advantaged and less-advantaged students for attitude toward career choice. For this concept, less-advantaged students had a positive average change of .1457 as compared to an average gain of .0922 for advantaged students.

8. It was found that less-advantaged students changed slightly negatively (-.0449) in average response between pre- and post-test in attitude toward more education while advantaged students changed slightly positively.

9. Findings showed that in overall attitude change both advantaged and less-advantaged groups had positive average changes, although less-advantaged students showed a slightly larger increase than advantaged students.

10. It was found that in general work attitude, agricultural work attitude, attitude toward people in agriculture, and attitude toward career choice, seventh and eighth grade vocational agriculture students showed the most positive average change followed in order by Vocational Agriculture I and Vocational Agriculture Occupational Training students. In terms of overall attitude, each of the different types of classes had positive mean changes with seventh and eighth grades vocational agriculture students having an average increase of .1448 followed by Vocational Agriculture I students (.0950) and Vocational Agriculture Occupational Training students (.0647).

11. In attitude toward life, it was found that Vocational Agriculture Occupational Training students showed a larger mean change (.1770) than each of the other two types of vocational agriculture classes.

12. A statistically significant difference was found at the .06 level of significance between the average changes in response of experimental and control schools in agricultural work attitude. Experimental schools showed a significantly greater positive change in this concept with an increase of .1896 as compared to a gain of .0088 for control schools.

13. Findings revealed that in all of the career development concepts, with the exception of attitude toward more education, experimental schools had greater average changes between pre- and post-

test. In overall attitude change, both types of schools had positive mean changes, but experimental schools had an increase of .1081 as compared to a gain of .0839 for control schools.

Conclusions

From the descriptive and statistical analysis of the data and the observations made by the researcher, the following conclusions were made about the findings of this study:

1. Students in experimental and control schools showed neutral or somewhat positive average attitude responses toward all career development concepts.

2. Caucasian students who were taught the agricultural careers curriculum had a more positive atitude change toward career development than any other ethnic group represented.

3. Less-advantaged students who were taught the agricultural careers curriculum had a more positive attitude change toward career development than advantaged students.

4. A greater positive attitude change occurred in the seventh and eighth grade vocational agriculture classes than in any other type of vocational agriculture class represented.

5. The agricultural careers curriculum as taught positively changed the students' attitudes toward career development and specifically toward working in agriculture as evidenced by students in experimental schools having a higher positive attitude change than those in control schools.

Recommendations

Based upon the conclusions drawn from the analysis of the data and major findings of the research, the following recommendations are made:

1. It is recommended that the agricultural careers curriculum be used in conjunction with the core curriculum I in Oklahoma vocational agriculture programs.

2. It is recommended that the agricultural careers curriculum be used as a major portion of the instructional program in all seventh and eighth grade vocational agriculture classes in Oklahoma.

3. It is recommended that the agricultural careers curriculum be used in the instructional program in Coordinated Vocational Education and Training programs in Oklahoma.

4. It is recommended that further studies be conducted if possible with larger numbers within groups, classes, and schools so as to eliminate the need to artificially combine each.

5. It is recommended that similar studies be conducted using other comparisons such as sex, size of the community, curricular choice (vocational students vs. non-vocational students), and intelligence and educational success (high achievers vs. low achievers).

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APPENDIX

ATTITUDE MEASUREMENT INSTRUMENT

VOCATIONAL AND AGRICULTURAL OCCUPATIONS

OPINION INDEX

Name _____

School_____ Grade _____

Age _____

Years of Vo Ag _____

1. Race or culture:

1( ) American-Indian
2( ) Black
3( ) Mexican-American
4( ) Oriental
5( ) Puerto-Rican
6( ) White
7( ) Other: _____
Specify

2. How much thinking have you done about your career goal?

1( ) I have given it lots of thought
2( ) I have given it some thought
3( ) I have given it little thought
4( ) I have given it no thought

3. In choosing my career goal,

1( ) I feel sure that my mind is made up
2( ) I'm not too sure, but I think my mind is made up
3( ) I'm not sure my mind is made up
4( ) My mind is not made up

4. Have you ever had a paying job? (Check all that apply)

1( ) Yes, as part of my school program
2( ) Yes, full-time in the summer
3( ) Yes, part-time in the summer
4( ) Yes, full-time during the school year
5( ) Yes, part-time during the school year
6( ) No

Rank these Agricultural Occupations areas 1-6 according to the one you would most like to work in (1) down to the one in which you would least like to work (6).

Production Agriculture _____
Ag Sales & Services _____
Ag Mechanics _____
Ag Products _____
Horticulture _____
Forestry _____

Instructions:

All of the following statements are about working or about preparing for work through a vocational course. The statements are about things that can or might happen when people work or take a vocational course. Some of them you may agree with and some of them you may disagree with.

For each statement, decide how much you agree or disagree with it. If you agree very strongly with it and think it is definitely true about working or school, circle #1 under "strongly agree." If you agree somewhat and think that it's probably true, circle #2 under "somewhat agree." If you neither agree nor disagree or really don't know whether it's true or not, circle #3 under "neither." If you somewhat disagree with the statement and think it's probably not true, circle #4 under "somewhat disagree." If you disagree strongly and are quite sure the statement is not true, circle #5 under "strongly disagree."

*To interpret signs and numbers see coding key on the last page.		Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree
1-	1. No one will hire inexperienced people.	1	2	3	4	5
1+	2. Work is the best way to get a steady income.	1	2	3	4	5
1-	3. It is hard for me to be on time every day.	1	2	3	4	5
6+	4. I give everything I have to what I do.	1	2	3	4	5
6-	5. Teachers rarely tell a person when he is doing a good job.	1	2	3	4	5
1+	6. It is easy to get used to work procedures.	1	2	3	4	5
1-	7. Most people who work do not like their jobs.	1	2	3	4	5
1+	8. Most job promotions are based on ability.	1	2	3	4	5
1+	9. Working gives people security.	1	2	3	4	5
1+	10. People who work usually feel better about themselves.	1	2	3	4	5
1+	11. People who work often seem more attractive or interesting.	1	2	3	4	5
6+	12. It is important to get ahead.	1	2	3	4	5
5+	13. My family likes the idea of my taking a vocational course because they feel it will help me get a better job.	1	2	3	4	5
1-	14. It is hard to keep both friends and a job at the same time.	1	2	3	4	5
1-	15. It is hard to take orders from a boss.	1	2	3	4	5
1-	16. Employment tests are hard to pass.	1	2	3	4	5
4+	17. My vocational training will be helpful in finding a job when I graduate.	1	2	3	4	5
1+	18. Working makes people look up to you.	1	2	3	4	5
1-	19. Most jobs require too much time and money traveling back and forth between home and work.	1	2	3	4	5
6-	20. There isn't much chance to get a good job.	1	2	3	4	5
1+	21. Working helps people become more mature.	1	2	3	4	5

			Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree
4+	22.	The more training I get, the better off I am.	1	2	3	4	5
1-	23.	You don't need a steady job until you have financial responsibilities.	1	2	3	4	5
6+	24.	I need a steady income.	1	2	3	4	5
6+	25.	Most people give everything to what they do.	1	2	3	4	5
1-	26.	The only purpose for working is to make money.	1	2	3	4	5
1+	27.	Most supervisors understand the problems of a new worker.	1	2	3	4	5
1+	28.	Working will help me become more mature.	1	2	3	4	5
1-	29.	My training will probably be worthless in a few years.	1	2	3	4	5
5-	30.	If I had it to do over again, I would not pick a vocational course.	1	2	3	4	5
1+	31.	Most people would work even if they did not have to.	1	2	3	4	5
1-	32.	Working leaves people less time for a social life.	1	2	3	4	5
5+	33.	There are a lot of good jobs in my vocational area.	1	2	3	4	5
1+	34.	People who work have more choice about where they live and what they do.	1	2	3	4	5
5-	35.	Most people do not really choose their vocational training area.	1	2	3	4	5
1-	36.	I never stick to things very long.	1	2	3	4	5
1+	37.	Working gives people more freedom.	1	2	3	4	5
1+	38.	Life is more interesting for people who work.	1	2	3	4	5
4-	39.	Job requirements are too hard.	1	2	3	4	5
6+	40.	It is important for people to get ahead.	1	2	3	4	5
1-	41.	Most employers expect inexperienced people to work for low pay.	1	2	3	4	5
1-	42.	Enjoyable jobs are hard to find.	1	2	3	4	5
4+	43.	My training will give me the skills I need to get a good job.	1	2	3	4	5
6+	44.	People who work usually have better social lives.	1	2	3	4	5
6+	45.	Most people need a steady income.	1	2	3	4	5
1-	46.	It is hard to do a good job all the time.	1	2	3	4	5
4+	47.	The more training people get, the better off they are.	1	2	3	4	5
6+	48.	People who work are more independent.	1	2	3	4	5
1+	49.	Working gives people more dignity.	1	2	3	4	5
5-	50.	Finding a job that suits me will be hard.	1	2	3	4	5
1-	51.	It is hard for most people to be on time every day.	1	2	3	4	5
1-	52.	It is hard to organize things the way you have to on a job.	1	2	3	4	5

			Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree
1+	53.	A person should enjoy the work he does.	1	2	3	4	5
1+	54.	It is worth the time and effort that is necessary to get a job.	1	2	3	4	5
4+	55.	It is hard for inexperienced people to get a job.	1	2	3	4	5
5-	56.	A high salary is the only thing that matters when looking for a job.	1	2	3	4	5
1-	57.	A good job is hard to keep.	1	2	3	4	5
5-	58.	In my vocational area, you have to start at the bottom and work up.	1	2	3	4	5
1+	59.	Working gives people more money to buy more things.	1	2	3	4	5
1-	60.	It is hard to make a good impression on a job interview.	1	2	3	4	5
1+	61.	People with responsibilities should never quit a job unless they have another job they can start right away.	1	2	3	4	5
5+	62.	If I had it to do over again, I would pick the same vocational course.	1	2	3	4	5
5+	63.	The most important thing to consider in selecting a vocational area is whether you like it.	1	2	3	4	5
1-	64.	Most people never stick to things very long.	1	2	3	4	5
1-	65.	People work because they have to, not because they want to.	1	2	3	4	5
1+	66.	Success on the job depends mainly on how hard you work.	1	2	3	4	5
1-	67.	The only reason people work is to get enough money to do the things they like.	1	2	3	4	5
1-	68.	Work is the same hard grind whatever job you have.	1	2	3	4	5
1+	69.	Work is something you do to feel productive.	1	2	3	4	5
6+	70.	Work is an opportunity to provide meaning to one's life.	1	2	3	4	5
1-	71.	Work is seldom enjoyable.	1	2	3	4	5
5+	72.	Most employers will give workers without experience a chance at a job.	1	2	3	4	5
1-	73.	Work is an unpleasant burden.	1	2	3	4	5
1+	74.	Work may be hard, but it is not a grind.	1	2	3	4	5
1+	75.	Work can be fun.	1	2	3	4	5
3+	76.	People in agriculture enjoy their work.	1	2	3	4	5
2+	77.	Many jobs in agriculture allow you to work outside in the clean fresh air.	1	2	3	4	5
3-	78.	People who work in agriculture don't have to make good grades in school.	1	2	3	4	5
3+	79.	Jobs in agriculture require a good education.	1	2	3	4	5

			Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree
3-	80.	People take jobs in agriculture because they can't do anything else.	1	2	3	4	5
3+	81.	People in agriculture must be good managers and have good ability.	1	2	3	4	5
2+	82.	Jobs in agriculture are very secure.	1	2	3	4	5
2-	83.	A job in agriculture is not very important.	1	2	3	4	5
2-	84.	Jobs in agriculture don't pay very much.	1	2	3	4	5
3+	85.	People in agriculture sometimes go to college to help them learn more about their jobs.	1	2	3	4	5
3+	86.	People in this country should be proud of farmers and workers in agriculture.	1	2	3	4	5
3+	87.	A person working in agriculture earns a good living.	1	2	3	4	5
2-	88.	Most jobs in agriculture are routine and monotonous.	1	2	3	4	5
2-	89.	A young person would be better off not going into agriculture.	1	2	3	4	5
3-	90.	People in agriculture have very little education.	1	2	3	4	5
3+	91.	People in agriculture have exciting jobs.	1	2	3	4	5
2+	92.	I would like to work in agriculture.	1	2	3	4	5
3-	93.	Most people in agriculture are lazy.	1	2	3	4	5
2-	94.	I would rather be on welfare than work in agriculture.	1	2	3	4	5
3+	95.	Most people in agriculture try to do an honest days work.	1	2	3	4	5
3-	96.	People who work in agriculture never have any fun.	1	2	3	4	5
2+	97.	I would rather work in agriculture than be on welfare.	1	2	3	4	5
2-	98.	Most jobs in agriculture are dirty.	1	2	3	4	5
2+	99.	Jobs in agriculture are as secure as most other jobs.	1	2	3	4	5
3-	100.	Workers in agriculture work longer hours than most other workers.	1	2	3	4	5

List the occupation in agriculture you would least enjoy. _____

List the occupation in agriculture you would most enjoy. _____

Coding Key

+ Means a positively stated item.
- Means a negatively stated item.

1=General Work Attitude
2=Agricultural Work Attitude
3=Attitude Toward People in Agriculture
4=Attitude Toward More Education
5=Attitude Toward Career Choice
6=Attitude Toward Life

VITA

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Candidate for the Degree of

Doctor of Education

Thesis: ATTITUDE CHANGE OF SELECTED ADVANTAGED AND LESS-ADVANTAGED OKLAHOMA YOUTH IN AN AGRICULTURAL CAREERS PROGRAM

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Biographical:

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Education: Graduated from Commerce High School, Commerce, Texas, May, 1970; received the Bachelor of Science degree from East Texas State University, Commerce, Texas, in August, 1973, with a major in Agricultural Education; received the Master of Science degree from East Texas State University, Commerce, Texas, in December, 1974, with a major in Agricultural Education; engaged in post-graduate study at East Texas State University, Commerce, Texas, from January, 1975, to July, 1976; attended Oklahoma State University, Stillwater, Oklahoma, from August, 1976, to December, 1977; completed requirements for Doctor of Education degree at Oklahoma State University in December, 1977.

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