A COMPARISON OF EFFECTS OF A SPECIALLY DESIGNED PROGRAM IN VOCATIONAL AGRICULTURE UPON SELECTED CHARACTERISTICS OF ADVANTAGED AND DISADVANTAGED RURAL STUDENTS

Ву

BOBBY R. WRIGHT

Bachelor of Science Sam Houston State College Huntsville, Texas 1962

Master of Education Sam Houston State College Huntsville, Texas 1963

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
May, 1971

AUG 12 1971

A COMPARISON OF EFFECTS OF A SPECIALLY DESIGNED
PROGRAM IN VOCATIONAL AGRICULTURE UPON SELECTED
CHARACTERISTICS OF ADVANTAGED AND
DISADVANTAGED RURAL STUDENTS

Thesis Approved:

Thesis Adviser

L. A. Parcher

Kennett St. Clar.

Robert Jerry

Dean of the Graduate College

ACKNOWLEDGMENTS

The researcher would like to give acknowledgment and appreciation to those who assisted in the research effort and in compilation of data into this thesis. The assistance and guidance of the researcher's major adviser, Dr. Robert R. Price, Head of the Department of Agricultural Education, is greatly valued, as well as the assistance rendered by the other members of the researcher's committee - Dr. H. Robert Terry for the time he gave in assisting the researcher complete the thesis, and Dr. Kenneth St. Clair and Dr. L. A. Parcher.

Appreciation for the cooperation and services of the student teachers and cooperating teachers who administered the instructional program at the selected centers is expressed.

Assistance and guidance was received from the State Department of Vocational-Technical Education staff in setting up the research as well as funds allocated for the purpose of this research effort involving the disadvantaged. Appreciation is expressed for this assistance.

Appreciation is also extended to Dr. James P. Key and Dr. Jack W. Pritchard of the Agricultural Education staff, and to Dr. Charles O. Hopkins and Dr. William D. Frazier of the Division and Research Planning and Evaluation Department at the State Department of Vocational-Technical Education.

To my wife Patricia goes all my thanks and appreciation for the encouragement and support throughout the graduate program and the writing of this thesis. And Gregg, to you and Gary, Daddy expresses

. . .

his appreciation for the understanding you have shown throughout the graduate program. Appreciation is also expressed to my parents, Mr. and Mrs. L. L. Wright, and to my mother and father-in-law, Mr. and Mrs. Bill Gillespie, for their constant support in my educational endeavors.

TABLE OF CONTENTS

Chapte	Pag
I.	THE PROBLEM AND ITS SETTING
	Introduction
	Statement of the Problem
	Statement of the Problem
	Objectives of the Study
	Hypotheses
	Scope of the Study
	Method of Procedure
	Definition of Terms 1
II.	REVIEW OF RELATED LITERATURE
	Attitudes and Attitude Formation 1
	Characteristics of Students with Special Needs 2
	Parental Influence
	Students' Desires for Improvement
	Characteristics of Disadvantaged Learners 2
	The Disadvantaged Student's View of School 2
	Toward a Meaningful Education for Rural Disadvantaged. 3
	Summary
III.	DESIGN AND CONDUCT OF THE STUDY
	T. A.
	Introduction
	The Study Population
	Development of the Special Teaching Program Materials. 3 Administration of the Special Teaching Program
	Materials
	Collection and Analysis of Data
IV.	RESULTS OF THE STUDY 5
	Introduction
	Student Population
	Advantaged and Disadvantaged Student Population 6
	Study Findings Related to Student Attitudes Toward
	Education and Gainful Employment 6
	Estimates of Degree of Improvement
	The Researcher's Observations During Supervision of
	the Program

Chapter						
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 92						
Summary 92 Conclusions 99 Recommendations 100						
A SELECTED BIBLIOGRAPHY						
APPENDIX A						
APPENDIX B						
APPENDIX C						
APPENDIX D						
APPENDIX E						
APPENDIX F						
APPENDIX G						
APPENDIX H						
APPENDIX I						
APPENDIX J						
APPENDIX K						
APPENDIX L						
APPENDIX M						
APPENDIX N						
APPENDIX O						
APPENDTX P						

•

LIST OF TABLES

Table		Page
I.	Composite of Population by Schools	58
II.	Enrollment by Ethnic Groups for School A	60
III.	Enrollment by Ethnic Groups for School B	61
IV.	Enrollment by Ethnic Groups for School C	61
V.	Study Population by Treatment Category, Schools and Ethnic Groups	62
VI.	Distribution of Disadvantaged Students by Ethnic Group and Type of Disadvantagement	65
VII.	Population Distribution by Advantaged and Disadvantaged Categories and Ethnic Groups	67
VIII.	Covariate Means of Treatment Groups for Attitudes Toward Education	71
IX.	Analysis of Covariance on Attitude Toward Education Scores of Experimental and Control Groups	72
х.	Covariate Means of Treatment Groups for Attitudes Toward Preparing for Gainful Employment	73
XI.	Analysis of Covariance on Attitude Preparing for Gainful Employment Scores of the Experimental and Control Groups	74
XII.	Covariate Means of Disadvantaged Treatment Groups for Attitude Toward Education	75
XIII.	Analysis of Covariance on Attitude Toward Education Scores of Experimental and Control Groups of Disadvantaged Students	75
xIV.		76
XV.	Analysis of Covariance on Attitude Toward Gainful Employment Scores of Experimental and Control Groups of Disadvantaged Students	77

Table		Page
XVI.	Covariate Means of Advantaged Treatment Groups for Attitude Toward Education	78
XVII.	Analysis of Covariance on Attitude Toward Education Scores of Experimental and Control Groups of Advantaged Students	79
XVIII.	Covariate Means of Advantaged Treatment Groups for Attitude Toward Preparing for Gainful Employment	80
XIX.	Analysis of Covariance on Attitude Toward Gainful Employment Scores of Experimental and Control Groups of Advantaged Students	80
XX.	Cooperating Teachers Involved in Study	81
XXI.	Cooperating Teacher Estimates of Relative Degrees of Improvement Observed in Students Receiving Special Program	85
XXII.	Student Teacher Estimates of Relative Degrees of Improvement Observed in Students Receiving Special Program	87
XXIII.	Combined Estimates of Cooperating and Student Teachers of Relative Degrees of Improvement Observed in Students Receiving Special Program	89

. .

CHAPTER I

THE PROBLEM AND ITS SETTING

Introduction

Over the past few years there has been a growing concern that the American educational system was not dealing effectively with the problems of minority groups. Throughout the United States, it has repeatedly been found that something needs to be done for the benefit of these groups. Students so classified should be afforded the opportunity of equal education, especially with regard to gainful employment. Through educational approaches the attitude of these students must be made more favorable toward education and gainful employment. Blacks, American Indians, and low income whites are not receiving optimal benefits from their educational experiences. There may exist in some very remote areas, societies in which the attitude toward education and preparing for gainful employment would have little significance to an individual, but in our American society where occupational choices may change some three to four times, vocational education is becoming more and more important for securing employment.

It is surely the desire of most people to prepare themselves for gainful employment rather than for "dead end" jobs which offer only limited opportunities for advancement. This desire needs to be kindled through educational methods thus helping the individual student create a more positive attitude toward a meaningful way of life.

An educational system cannot be isolated from the rest of society. Educational systems are devoted to making investments in human capital. Levels of skills are raised, as are knowledge and adherence to central values. Thus, this makes it possible to achieve higher and higher levels of productivity. Ultimate goals of both the educational systems and the occupational systems are closely related. Obviously, no amount of "tinkering" with an educational system is going to be of use in the task of raising minority groups to employment parity if the occupational system still raises barriers of discrimination to the employment of minority groups. This is also true if the educational system is tied to a faulty or incomplete conception of the occupational world. The student with special needs will benefit more from these two organizations if they are closely related and have a firm working agreement.

The student, like everyone else, is consistently judged by his fellowman. Society judges an individual by what he can do and, furthermore, by his ability to learn to do better what he is doing. The individual, whether advantaged or disadvantaged, cannot escape from the presures of how to live, how to earn a living, how to function effectively, and how to achieve his own purposes. Society, with its changes and increased demands on the youth of today, has produced a staggering number of teenagers who find it undesirable, if not impossible, to keep pace with the regular school program. This makes it even more important that an educational program be developed that will hold their interest while training and preparing them for a better position in today's society.

America can no longer relax and enjoy the luxury of its present system of manpower education. The nation is losing one of its more valuable resources when more than three quarters of a million youth drop out of America's high schools every year, and approximately 25 percent of our high school graduates enter the world of work with few, if any, salable skills (1). For example: "Twelve percent of those who graduated from high school in June of 1965, were unemployed by October of the same year. Twenty-seven percent of the non-whites from the same class were unemployed." Can it be that their education was not relevant to their needs (1)? As it becomes increasingly difficult for these young people to find their place in society and for society to accept them, it creates a pattern of defeat resulting in more definite negative attitudes toward further education and work. It is essential that attitudes of youth falling into this category be favorably affected as early in life as possible through educational programs.

Achievement of a high degree of relevance in the educational system would seem to be one of the most feasible means of improving this situation. As described by Webster, "relevant implies a close logical relationship with, and important to, the matter of consideration (1)." Relevance, as applied to education, demands that education must have a close logical relationship with problems faced by each individual in the society. This provides the primary justification for the support of that educational system. Education in today's democratic society is for the development of each member of society, not just for the socially elite as in early America. Education is for the improvement of all mankind and society regardless of color, race, or creed.

The nation must strive for an educational system that will allow every child to become all that he is capable of becoming. Through educational experiences, the student needs to be able to expand his

ideas and create 'his own thing' to establish a more favorable personal environment, thus affecting his attitude toward other things such as further education, a worthwhile place in society, and employment that would support his dependents. Every American child should have the opportunity to secure as much education as his interests and his academic abilities will permit. This is not to say that he should have the same education as everyone because all do not possess the same abilities, Instead, there must be efforts to match the process of education to the abilities and aptitudes that each possesses. Because all children are different, they cannot all be taught the same method, nor should all of them be expected to learn by the same method. That is, should each of them be expected to study and learn the same amount and at the same rate from the same subject matter area? The individual student must be given the freedom to make a choice of learnings and then be guided educationally down a path that will lead to the fulfillment of his expectations.

In essence, the contention is that the sooner the system of education is adjusted to people instead of trying to adjust people to the educational system, the more rapidly will advances be made in the civilizing process. The country's full potential is threatened when its youth are not educated to their maximum, each being an individual with varied potential. The tremendous social waste involved when a youth does not profit optimally from an educational program, affects all citizens. His contributions of talent as well as tax money to the accepted way of life is reduced. The greatest loss, however, is to the individual himself because he is restricted in his personal development.

The development of new curricula, especially a program of studies

that would hold the interest of students, keep them in school, and give teachers the opportunity to further aid them in developing knowledge and skills would seem to be a practical move toward relevance in education. Hopefully, this should result in providing the student with incentive for establishing a salable skill to offer society while achieving his own goals.

Statement of the Problem

The present study attempted to investigate the possibilities of changing student attitudes. This was accomplished by offering to a group of minority students, enrolled in vocational agriculture for the first time, and adjudged to be students with special needs, a special program of study in vocational agriculture so designed as to attempt to function in a manner more relevant to their individual needs. It was also hoped that additional insight could be gained into the understanding of each minority group and, more specifically, as to their attitudes toward school and gainful employment. Also, observed differences in communication abilities and school attendance were determined in terms of their occurrence during the period of the investigation.

Purpose of the Study

The central purpose of the study was to determine the effects of a specially designed instructional program in vocational agriculture upon students enrolled in Vocational Agriculture I who were adjudged as students with special needs.

Objectives of the Study

In order to accomplish the central purpose of the study, the following specific objectives were formulated:

- 1. To establish advantaged and disadvantaged categories of students enrolled in vocational agriculture in three schools and identify students comprising each category.
- 2. To determine if significant differences exist between and within disadvantaged vocational agriculture students and advantaged vocational agriculture students with regard to:
 - (a) attitude toward further educational endeavors; and
 - (b) attitude toward gainful employment, as a result of a specifically planned and administered instructional program. Also, a further objective was to observe differences in communication ability and school attendance between these two groups and determine any effects of treatment upon student behavior in these categories.

Hypotheses

Since this study was designed to compare the effects of a specialized versus a traditional vocational agriculture instructional program upon students' attitudes toward education and gainful employment, persistence of attendance, and communications behavior, the following hypotheses, stated in the null form, were formulated:

1. There is no significant difference in the attitude toward education of students in the special instructional program and the students in the traditional vocational agriculture course as measured by a pre-test, post-test gain score.

- 2. The attitude toward gainful employment is not significantly different between students enrolled in the special instructional program as compared to those enrolled in the traditional vocational agriculture instruction program as measured by a pre-test, post-test gain score.
- 3. The attitude toward education is not significantly different between disadvantaged students enrolled in the special instructional program as compared to disadvantaged students enrolled in the traditional Vocational Agriculture I instruction program as measured by a pre-test, post-test gain score.
- 4. The attitude toward gainful employment is not significantly different between disadvantaged students enrolled in the special instructional program as compared to disadvantaged students enrolled in the traditional Vocational Agriculture I program as measured by a pre-test, post-test gain score.
- 5. The attitude toward education is not significantly different between advantaged Vocational Agriculture I students enrolled in the special instructional program as compared to advantaged students enrolled in the traditional Vocational Agriculture I program as measured by a pre-test, post-test gain score.
- 6. The attitude toward gainful employment is not significantly different between advantaged Vocational Agriculture I students enrolled in the special instructional program as compared to advantaged students enrolled in the traditional Vocational Agriculture I program as measured by a pre-test, post-test gain score.
- 7. There is no measurable or observable difference in the

- persistence of attendance of students enrolled in the special instructional program as compared with students enrolled in the traditional vocational agriculture program.
- 8. There will be no observed difference in the communication abilities of students enrolled in the special instructional program as compared with students enrolled in the traditional vocational agriculture program.

Scope of the Study

The study was conducted in three Southeastern Oklahoma high schools. The study involved a total population of 72 Vocational Agriculture I students classified in two groups - advantaged and disadvantaged - and consisted of Negroes, American Indians, and whites. A student from any of the three racial groups was considered to be disadvantaged: if his family's income was less than \$3,000.00 annually; if his Intelligence Quotient score was one standard deviation below the mean of the test used to determine the I.Q. score; and if previous academic achievement placed him in the lower quartile of the entire class.

Need for the Study

In enacting the Vocational Education Amendments of 1968, Congress forcefully expressed its clear intent that special needs students were among the top priority programs to be considered. Congress expressed this through a series of directives and by providing funds earmarked for carrying out these directives.

The special needs students are not strangers to vocational education although they have not been well served. To preserve the trend

and to accomplish the intent of Congress, vocational education is required to institute broad and sweeping changes in the program and services for the special needs students. These changes will have to take place in the area of curriculum development, course instructional programs, counseling and supportive services, and many other areas. Perhaps more difficult to accomplish, but of more importance, there will have to be changes in the attitudes of teachers and other members of society toward the students with special needs.

A number of factors seem to indicate that a meaningful educational experience is not available for all students. Limitations of present high school curricula precipitate neglect of many students with special needs. The conventional curriculum with required courses necessary for graduation evidently is failing in its appeal to a substantial number of students who subsequently drop out of high school.

It is unreasonable to assume that students with special needs are very different in their yearnings, ambitions and innate potentials from anyone else.

Perhaps the attitudes that these students have learned and acquired have a significant influence on the courses of action they take toward the educational system and the world of work. Their educational experiences, as they see and interpret them, are quite different from that of the socially accepted students. However, acceptance of a theory that all attitudes are learned or acquired leads to the assumption that a student in the first year of vocational agriculture, for example, has not yet learned or developed an unchangeable set of favorable or unfavorable attitudes toward school and toward preparing for gainful employment. Therefore, if the attitudes of the student have not been

internalized to the point that they have become a part of his value system, then perhaps through a curriculum or study program designed to be more relevant to his needs, his attitudes toward education and preparing for gainful employment could be cultivated in more positive rather than negative directions.

What seems required is training in a defined skill with a bona fide job opportunity, offering a clear pathway to advancement. Therefore, the challenge to teachers in vocational education is to understand the problems of these students and to develop programs and services that will realistically deal with their fears and hopes.

A curriculum or course instructional program designed more specifically for less advantaged students — one that will more adequate—ly fulfill their needs and interests — would appear to be a logical, beneficial step toward helping these students. It was further felt that such instructional program changes should begin with a familiar setting. It has been theorized and observed that vocational agriculture sustains student interest somewhat more than some other subjects, and as a result would provide a favorable environment for an experimental study to determine whether specialized curricula and teaching procedures could affect changes in student attitudes.

In many rural schools vocational agriculture is the only vocational course offered to boys. Interest usually runs high in this type of vocational course, but traditional vocational agriculture courses alone have not always proven entirely satisfactory in reducing low academic achievement, erratic attendance, communication difficulties, and in improving student attitudes toward education and gainful employment.

If high school courses and, in this case, vocational agriculture,

could be more specifically related to present experiences and understandings of students with special needs, hopefully much could be gained in improving attitudes, both toward further education and toward gainful employment.

A special type of instructional program designed and offered in vocational agriculture would allow the students to increase abilities, improve attitudes, develop culturally, and further more, encourage them to become assets to society instead of liabilities of taxpayers. The results of such a study could be utilized in the development of vocational education programs oriented to students with special needs. This also would be in compliance with the demands of Congress.

Method of Procedure

Procedures employed in the study will be discussed in greater detail in Chapter III; however, the following is a general summary of the major procedural steps:

- 1. Vocational Agriculture I students in three high schools were identified as comprising the disadvantaged group (possessing one of the following characteristics): (a) income of parents below \$3,000.00 level; (b) previous academic achievement places student in lower quartile of entire freshman class group; and (c) an individual score falling one standard deviation below the mean of the test used to measure Intelligence Quotient. The advantaged group was comprised of only Vocational Agriculture I students not having more than one of the above characteristics.
- 2. Students were randomly assigned to treatment categories.

Each group was administered a pre-test to measure attitudes toward education and gainful employment prior to the start of the experiment. One group (control) was given the traditional agriculture program and the other (experimental) was given a special instructional program, varying in content and teaching method, and designed by the researcher. After 27 weeks, the same attitude test was readministered and comparisons for significance of difference between groups were calculated for variables (a) and (b). These data were compared through covariance statistical analysis using I.Q., pre-test score, and grade point average as covariates. Individual students were also evaluated by teachers and student teachers in terms of changes in their communication ability and attendance while the experiment was in progress and measured by an instrument constructed by the investigator.

Definition of Terms

Students with Special Needs

Any student involved in this study who possessed at least one of the following characteristics was determined as a special needs student.

- 1. Negro, American Indian, or white student whose parents' annual income was below \$3,000.00.
- 2. Previous academic achievement placed student in lower quartile of entire class for previous academic school year.
- 3. Students of any race with individual score falling one standard deviation below the mean of the test used to measure Intelligence Quotient.

Education

Education as defined for the purposes of this study is the act of acquiring skills, knowledge, and discipline through study and instruction.

Gainful Employment

The means or process whereby a person becomes educated and/or qualify for an employment position which he can perform in a manner acceptable to himself and to others and which will provide him and/or his family with a suitable standard of living is termed as gainful employment.

Ethnic Group

Negroes, American Indians, and white Caucasians were the ethnic groups used in this study.

Attitude

Attitudes in this study refers to ways of belief, expectation and judgment, and emotional dispositions of likes and dislikes toward education and preparing for gainful employment.

Cooperating Teacher of Vocational Agriculture

This term describes the teacher or teachers of vocational agriculture employed by the local education board for the school district and who served as cooperating teachers involved in this study. The teacher is certified by the state as having completed requirements for a teacher of vocational agriculture in the State of Oklahoma, and has

been approved by the Director of Teacher Education, Oklahoma State University, to supervise students while they are engaged in student teaching at the high school.

Student Teacher

A college or university student who is in the process of completing requirements for a teaching certificate and engaged in the apprentice training in teaching vocational agriculture is referred to as a student teacher in this study.

Vocational Agriculture I

Vocational Agriculture I is the first course of vocational agriculture taught in the high school, and for the purposes of this study, Vocational Agriculture I includes all students enrolled in this course regardless of their age or grade in school.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of the study was to determine the effects of a specially designed instructional program in vocational agriculture, upon students enrolled in Vocational Agriculture I who were adjudged to be students with special needs.

A review of literature was felt necessary in order to obtain a more complete understanding of factors involved in the study. Attitude and attitude formation were two of the more important factors involved in the study and an extensive review of literature related to attitudes and the formation of attitudes enlightened the investigator's approach to these two factors as they are related to students with special needs.

During the process of reading and obtaining information pertinent to the study, the investigator discovered many articles and books reflecting characteristics of students with special needs. Many of these papers gave much attention to parental influence. In order to effectively work with students adjudged as students with special needs, the review of literature citing their characteristics was most important. The investigator must also stress that the parental influence affects these students to such an extent that the literature reviewed concerning parental influence was necessary to a better understanding of these students.

The investigator found a strong assertion in article after article

that students adjudged as students with special needs felt much the same regarding improvement. They desire their environment to be better, and whether they will openly admit it or not, most of them would like to do something to help improve their situation.

The literature cited revealed, in most instances, that the disadvantaged student views school with a negative approach. A more meaningful study program could possibly help change this negative attitude toward school.

Most authors indicated that a more meaningful education was needed for rural disadvantaged youths as well as those living in the city areas. Since the schools selected for the study were rural type schools, the investigator felt it necessary to review literature about the disadvantaged student in the rural area.

Attitudes and Attitude Formation

A part of the growing-up process is the forming of attitudes.

Campbell (2) stated that as the child grows and matures, things around him will have a direct effect, both intentionally and unintentionally, on the development process of his attitudes. It was further stated by Campbell (2):

During his social growth, the child naturally learns about many different substantive areas of life, including institutions, events, people, and even the states that he develops certain underlying predispositions that seem as potentials for his actions. For each such area, the child forms evaluative judgments and acquires standards that define appropriate functions in relation to it. As a result he acts in a particular way when relevant circumstances arise. Together, such underlying predispositions and their consequences for action constitute an individual's orientations. These orientations represent clusters of phenomenally related social attitudes with their components, beliefs, feelings, values, standards, and performances.

Attitudes are developed. Attitudes are learned. A person acquires or develops a belief, and as he grows older these beliefs become an attitude. Then his attitudes combine to form his value system. Attitudes were of principal concern in this study, and were thought of as being ways of belief, expectation and judgment, and emotional dispositions of likes and dislikes.

Rokeach (3) reported that there is little consensus about exactly what is meant when speaking of a belief, an attitude, a value or value system, and about exactly what the differences are among these concepts. This writer further stated:

We are still a long way from understanding the theoretical relationship between attitudes and behavior, between attitude change and behavior change; we have not yet learned how to predict accurately one from the other.

Rokeach (3) also pointed out:

Nearly everyone would agree that the total number of beliefs a grown person possesses is large. By the time we have reached adulthood we have formed tens, possibly thousands of beliefs concerning what is or is not true and beautiful and good about the physical and social world in which we live.

It was stated by Caldwell (4) that since attitudes are so valuable in determining human behavior, it is highly important to make a direct effort to develop desirable attitudes because:

... Attitudes are now thought to be as specific as other objectives and like others they must be directly sought by specific efforts if they are to be developed It is very much easier to teach facts and principles ... than it is to teach helpful attitudes and to correct false attitudes.

A variety of definitions of attitudes have been proposed. However, there are some which were considered particularly relevant for this study. For example, Thurston (5) contended that an attitude:

. . . is the sum total of a man's inclinations and feelings,

prejudices or fears, thoughts, and convictions about a specific topic.

Hutt (6) said:

By attitudes we mean the beliefs, feelings and action tendencies of an individual or group of individuals toward objects, ideas, and people.

Rokeach (3) provided additional clarification when he indicated:

Virtually all theorists agree that an attitude is not a basic, irreducible element within the personality, but represents a cluster or syndrome of two or more interrelated elements. Helen B. Lewis emphasizes this view when she defines an attitude as "an interrelated set of opinions organized around a point of reference" (1938, p. 65). In our definition, the elements are underlying beliefs (or cognitions, or expectancies, or hypotheses) rather than expressed opinions.

Definition of belief: Jastrow has pointed out that the human "mind is a belief-seeking rather than a fort-seeking apparatus" (1927, p. 284). A belief is any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being preceded by the phrase "I believe that..." The content of a belief may describe the object of belief as true or false, correct or incorrect; evaluate it as good or bad; or advocate a certain course of action or a certain state of existence as desirable or undesirable. The first kind of belief may be called a descriptive or existential belief (I believe this ice cream is good); the third kind may be called a prescriptive or exhortatory belief (I believe it is desirable that children should obey their parents).

Each belief within an attitude organization is preceived to have three components. These components as pointed out by Rokeach (3) are:

- 1. A <u>cognitive</u> component, because it represents a person's knowledge, held with varying degrees of certitude about what is true or false, good or bad, desirable or undesirable.
- 2. An <u>affective</u> component because under suitable conditions the belief is capable of arousing affect of varying intensity centering around the object of the belief, around other objects taking a positive or negative position with respect to the object of belief, or around the belief itself, when its validity is seriously questioned, as in an argument.
- 3. And a <u>behavioral</u> component, because the belief being a response predisposition of varying threshold, must lead to some action when it is suitably activated.

By using the preceding considerations, an attitude may be defined simply as an organization of interrelated beliefs around a common object, with certain aspects of the object being the focus of attention for some persons, and other aspects for other persons. The attitude has cognitive and affective properties by virtue of the fact that the several beliefs comprising it have cognitive and affective properties that interact and reinforce one another.

Newcomb, Turner, and Converse (7) summarized the point well when they wrote:

The attitude concept seems to reflect quite faithfully the primary form in which past experience is summed, stored, and organized in the individual as he approaches any new situation.

After extensive review of the literature specifically dealing with attitudes, the author would agree with Woellner (8) who wrote:

As we grow older, as we mature, our attitudes increasingly become a matter of nurture of training; in the very young attitudes are entirely a matter of nature. We see youngsters from three weeks of age on reacting in a certain way, showing and giving evidence of a certain attitude toward their food, toward their parents, toward this and that. As they grow older their attitudes are influenced and colored by training and association; and that is the point of hope in the situation.

As a person grows older and develops his mental abilities, his self-concept is shaped largely in terms of the image he sees of himself in the mirror of other people's attitudes toward him. If he feels loved, he sees himself as lovable. Being disliked or considered inadequate lets him know he is not worth much. Dependent for fulfillment on the solid support of loving, unthreatened adults, the needs of all children for security and a sense of worth are seldom fully satisfied. For it is likely that most children, as they learn that they are sometimes annoying and often disappointing — that they should be somehow

always better than they are - develop some insecurity about their acceptability and worth.

It is generally accepted that self-doubt is common in children in families of any socio-economic class and children who grow up with unusual environmental deficits develop attitudes and habits that work against their abilities to move toward a sense of adequacy and acceptability.

As stated by Lichtenstein (9):

Education in general, schooling in particular represents an effort of society to modify habits. Courses of study list among their expected outcomes certain gains in habits, gains in skill, and gains in attitudes.

There have been many inquiries concerned with the studies of attitude and the literature runs deep with reference to attitude barriers common to students with special needs. However, the review of the literature did not uncover a study similar to this investigation, particularly one that involved students enrolled in Vocational Agriculture I and adjudged as students with special needs.

Characteristics of Students with Special Needs

Society, with its rigid changes and increased demands on the youth of today, has produced a staggering number of teenagers who find it undesirable if not impossible to keep pace with the regular school program.

Educators have described the growing work load that is being placed on our students as the "crime of the generation." In order to meet the increasing demands of society, schools have found it necessary to crowd all of the old fundamental educations, plus all of the new advances, into the same rigid school period requiring as much as seventeen hours in the student's work day. As a result of this strain, nearly 50 percent

of our student body end up as failures, sometimes considered by the public opinion as "drop-outs" (10).

These students are most often found in the central city slums or the rural depressed areas. They have low family incomes and their parents have low educational backgrounds. They are unfamiliar with the world of work and are disillustioned and frustrated by the existing school system. They have restricted time horizons and do not believe most promises made to them. A substantial number of them are from minority groups including Negroes, American Indians, and low income whites (11).

These drop-outs and many more borderline cases who barely squeeze through school, have been designated by educators as "students with special needs" (10).

These students do not usually succeed in conventional school settings and frequently need an alternative path in which to develop their potential. In the classroom they are considered as misfits or distruptors, and they exhibit hostility and unruliness or passiveness and apathy. Psychologically, they drop out of school two or three years before they drop out physically. The schools have not succeeded in preparing most of them for suitable jobs (11).

Many of these students have had no opportunity to consider a vocational goal. They want training with a clear and definite promise of a job, yet they may resist training because they are dubious about the genuineness of the opportunity or because they fear their lack of experience and low academic achievement will embarrass them. In short, their conditioning to the world of work has been a negative one (11).

Those who have been closely associated with agriculture and

accustomed to working out-of-doors and in temperate climates, have difficulty adjusting to the confinements of indoor work and are better satisfied when seeing a more direct relationship between their labor and a finished product (11).

They are often found to be from inferior housing and broken homes in which there are unpaid debts, hunger, poor health, alcholism and in many cases drug addiction. Their style of living, language, dress and humor is far removed from that of the middle class people. Many have rage for the way "the system" or "the establishment" has, in their eyes, abused them (11).

Parental Influence

Vocational education programs cannot afford to neglect parents, because they play such an important role in the educational decisions and career choices of their children. Parents serve as models for emulation or rejection; and the type of work they do strongly influences the motivations and attitudes of their children (12).

Children may react in several ways if the parents' work is in unskilled or semi-skilled jobs. Some will resent seeing their parents make a living at this type of employment and resolve to prepare themselves for occupations which are more stable, require more training and knowledge, and hold more interest. This leads to a strong motivation for more training, and schools should turn this attitude to good account. Others will accept society's image of them and their families as being suited only for semi-skilled or unskilled jobs and capable of only low grade skills. They will take vocational courses to prepare themselves for the jobs which appear to them to fall within the range

of their capacities; on graduation, they will seek jobs requiring only little knowledge - jobs that only the uneducated could do, and they will go no further. Still others will be discouraged early in life and they will have no higher aspiration than just to get along as best they can. Many of those in these last two groups have greater potential than their self-estimate allows; but this potential is lost through the years of unguidance. For the schools too often have accepted the student's own sense of his worth and have not endeavored to guide him into a more satisfying career nor have they encouraged him in any way to develop the potential he possesses (12).

Parents often influence their children's motivation by their own attitude toward education and learning. Many disadvantaged families cannot afford to have good reading material in their homes. Some parents will stress the importance of libraries, while others will have no conception of the importance of reading matter. Overcrowded conditions in many homes prevent the student from being able to study. Some parents will see to it that there are certain hours of quiet so that homework may be done, while others will have no idea of the necessity for such periods. Parents who recognize the importance of education to the future of their children will instill in them the desire for education; those who do not, will infect them with their own discouragement (12).

Riessman (13) indicated that students from families with little educational background find it difficult many times to further their education because most of their friends and relatives did not go to college and the student fears he will be out of place. Even more serious, he fears the loss of his family, community, and peer group ties.

Michael (14) observed that the disadvantaged child often comes from a family where privacy is unknown, where the family and the surrounding residents resort to violence for immediate solution to disputes, and where discipline through the use of force is common.

It was further stated by Riessman (13) that the culturally deprived child is not interested in education; moreover, that he is essentially antagonistic toward it. This idea is rooted in two observed facts; one is the observation that he is plainly discontented in the school; and the other is the equally well known fact that his parents have little education, frequently cannot read, and that there are very few good books, if any, found in the home.

Riessman (13) also observed, "... that members of underprivileged groups had a rather surprising view about the importance of education." In a study interviewees were asked the question, "What do you miss most in your life that you would like your children to have?" About 50 percent of the white socio-economic group and 70 percent of the Negro group indicated "education." Most significant is the fact that the respondents supplied the word "education" themselves. It was not selected from a list of possible choices provided by the interviewer. This would indicate that education is a rather meaningful and important concept to these groups even though it is lacking in their background.

Students' Desires for Improvement

The socio-economic environment of the disadvantaged student often is the prime factor that influences the desire for a better life than the one he was born into. He has anxieties and desires for a better life, but unless these emotions are channeled into paths of productive

purpose, they most likely will not be developed and the end result will be a continued socio-economic environment comparative to that of the parents.

It was repeatedly found, throughout the review of literature concerning disadvantaged youths, that the one thing they most desire is the thing that they are most skeptical about and that is having the approval of parents and other adults and receiving recognition for their accomplishments. Their environment influences this distrust while at the same time it creates the need for approval. It is a part of any individual to have pride when approval and recognition are the reward for accomplishments, so how important this must be to an individual who is accustomed to a life where he receives no incentive or encouragement from a peer group. The desire is there, the need has been established, and the end results can be rewarding when the student has found his place in society.

Students do not want to be judged as inferior because of their home or because of the color of their skin or because English is a second language for them. It is the desire of most young people to do the acceptable thing, and in return earn approval and sometimes reward (15).

Characteristics of Disadvantaged Learners

Studies made of disavantaged students have revealed the following characteristics related to abilities for learning in school:

1. They are creative, motivated, and proficient in areas where their interests lie. If they feel a thing has little or no relevance to their needs, as they perceive them, they will consider it useless or a waste of time; this is particularly true of abstract ideas, plans for the future, or subject matter which they have never understood in terms of its

- purpose in their overall education.
- 2. They are capable of working well and hard on a specific task or assignment which has a purpose for them; for example taking courses which will result in a job or scholarship leading to a career.
- 3. They have a capacity for close and loyal personal relationships. This is especially true of relationships with their peers; because of their need for sustained associates, they find in each other the support they need but seldom get from adults. However, once an adult succeeds in winning their friendship and trust, especially in times of crisis, he will continue to receive their loyalty and support.
- 4. Unusual experiences make a deep impression on them, as they do on all children. By not having parents who converse with them and remind them of past happenings in their lives, these youngsters will best remember repetitive events or experiences of importance to them.
- 5. The mental associations they make with familiar objects often differ from those usually made by the general public. (For example, a building with a store front is as likely to represent a church as one with a steeple.)
- 6. They may be slow to make nonpersonal references. It is hard for them to imagine or visualize impersonally, because they have not been encouraged to use their minds in this way. They believe only what they can see, feel, and prove (15).

Michael (14) observed that the child from a disadvantaged background usually is less verbal, more fearful of strangers, less selfconfident, less motivated toward scholastic achievement, less competitive in the intellectual realm, less exposed to intellectual stimulation,
less varied in his recreational outlets, and less knowledgeable about
the world outside his immediate neighborhood. The disadvantaged child's
restrictive enrivonment frequently causes marked deficiencies in
listening, speech, reading, a lack of understanding of social situations, and inadequate development of problem solving techniques.
Typically, he is a physical learner; that is he has difficulty understanding a concept unless he "does it" with his hands.

There are countless reasons offered to explain why underprivileged

children do poorly in school. The following is a partial list of the conventional reasons proposed by Riessman (13).

- 1. The lack of an "educational tradition" in the home, few books, etc.
- 2. Insufficient language and reading skills.
- 3. Inadequate motivation to pursue a long-range education career, and poor estimate of self.
- 4. Antagonism toward the school, the teacher.
- 5. Poor health, improper diet, frequent moving, and noisy TV-ridden homes.

The Disadvantaged Student's View of School

It is important to consider and to understand the students' attitude toward school. Their educational experiences, as they see and interpret them, are quite different from those of socially-accepted students. It is important to consider and understand their attitudes before attempting to change them. Their educational experiences, as they see and understand them, are as follows:

- 1. The school day is long and tedious.
- 2. The education they are receiving seems to lack relevance to their future life and needs.
- 3. The school system often fails to recognize and respect their culturally different backgrounds.
- 4. Some teachers lack an understanding of their special needs and problems, or ignore them.
- 5. Little or no special instruction and attention are provided which might help them fit into the regular school programs.
- 6. Too much school time, in their view, is spent on discipline; staff members are occasionally involved in physical conflict with the students. Such behavior on the part of adults is already too frequent a part of these youngsters! lives.
- 7. They think they are not given the type of counseling, encouragement, or other support they need to enter the

world of work, and so they leave school unprepared for a job. When they encounter discrimination or failure in job seeking because of their age, race, or poor educational background, they do not believe that a return to school will improve their situation (12).

The following situation is offered to illustrate a student's development of a poor attitude toward school.

Jim had worked diligently for several hours on his paper! The teacher had given ten questions to be answered from the sixth grade geography book. Jim struggled over each question and did the best job that he could, He wrote in his best penmanship and spelled the words to the best of his ability. For what? To be knocked down by a big red "F" that was written hurriedly across his paper. His best efforts had been put forth, but according to his school records, Jim's I.Q. test grade was only 85, and the teacher failed to evaluate his capabilities and give him a grade in accordance with what he was capable of doing. Time after time like this situation had caused Jim to slip farther and farther behind each year. He was accustomed to getting unsatisfactory marks on a majority of his papers. Jim was becoming calloused to the notes of his teacher; year after year telling him, his parents and everyone else who knew him, that he was a failure (16).

What does education mean to the culturally deprived? It is perhaps easier to state what it does not mean. First, it does not have the same meaning that it has for many middle-class Americans. There is practically no interest in knowledge for its own sake; quite the contrary, a pragmatic anti-intellectualism prevails. Nor is education seen as an opportunity for the development of self-expression, self-realization, growth, and the like; consequently, progressive approaches are opposed (13).

There are varied motives for education among the deprived, some more apparent than others. The utilitarian attitudes are easiest to grasp. The average deprived person is interested in education in terms of how useful and practical it can be to him. Education provides the means for more and different kinds of employment, and thus provides a

more secure future. Most jobs that interest him require fairly detailed examinations or other rigirous entry qualifications and education is sorely needed to obtain these coveted positions.

The underprivileged person is much more oriented to the vocational rather than the academic aspect of education. If the deprived individual, is in fact, interested in education for the reasons we have noted, why is it that he encounters such difficulty in the school? Riessman (13) cited three factors, two of which relate to attitudes and practices of the school and the third of which concerns the conflicting feelings of the underprivileged individual himself.

Although the deprived person in many ways denies education, he is most inhibited by a few significant factors. For one thing, as pointed out by Riessman (13), he does not think he has a good chance of getting much education. This feeling forces his educational aspirations to remain more at the wish or fantasy level, rather than making of them a definite concrete intention. Then, the mechanics of obtaining higher education are quite vague to him. Getting admitted to college, no less attending classes, is complicated and foreign. He feels threatened by red tape and his general lack of information concerning the procedures involved. He does not know what he is supposed to say in an interview, or to answer on an application blank in response to the questions: "Why do you want to go to college. What do you expect to get out of college?"

Apart from these limiting factors that are more internal to him, there is the fact that education has a different meaning to the culturally deprived individual that it does to the educator. The teacher and most non-deprived students consider knowledge for its own sake

important. It does not have to be useful. Knowledge alone is power, and abstract symbolism need have no practical application. This view of learning is the antithesis of the deprived view. Moreover, self-expression and self-actualization, other aims of education, particularly modern education, are equally alien to the more pragmatic, traditional, underprivileged person. These differences alone might be sufficient to produce a negative attitude toward the school.

Toward a Meaningful Education for Rural Disadvantaged

An educational program for the rural disadvantaged youth must be a program that pays particular attention to the needs, characteristics, and aspiration of those served and to their potential for employment. Since its beginning, vocational agriculture has served persons with special needs to a great extent. Agricultural educators, high school teachers, and others in related areas can be proud of the emphasis given to the individual needs, characteristics, and interests of students in planning and conducting instructional programs in agriculture (17).

But, Warmbrod (17) asked:

Is this student-centered approach to teaching and learning sufficient to insure that agricultural education will meet its responsibility to serve "persons with special needs?"

Programs emphasizing meaningful supervised experience programs have little attraction to students who have no facilities at home for a project, to students who are not readily employable, and to students who get little or no encouragement financially from home.

Disadvantaged youths from the rural communities are not one group but many subgroups with varying characteristics, needs, and levels of aspiration. This necessitates the need for several education programs designed to meet their needs (17).

Why is education of this disadvantaged group so important? It would be easy to answer that the deprived must be educated because they are a source of needed manpower, or because everyone deserves an education. But perhaps there is a deeper reason. It is essential to democracy to combat the anti-intellectualism, prejudice, and intolerance that are bound to be characteristic of any educationally deprived group, and are, in fact, dominate motifs of the disadvantaged in America.

There is another reason why a meaningful approach to the deprived is important to the educator. Most of our teachers who work with underprivileged children today find this a most unattractive, unrewarding task. However, it can be both a challenging and an interesting assignment if a different approach is used (13).

The thing that is needed is a sympathetic, noncondesending, understanding of the culture of the underprivileged. A better understanding of the deprived person's attitudes toward education, the school, and the teacher is needed. Many of his attitudes toward education are more positive than one might think. At the same time, he may have a negative attitude toward the teacher and school. This contradiction between education and the school must be resolved (13).

The underprivileged person is much more oriented to the vocational aspect of education than the academic. One individual looked at education in this manner:

I want education so that I can handle the red tape you run into all over nowadays. If you want to buy a T.V. on time, or get a driver's license, you've got to fill out papers and be able to read; the same thing for a lot of jobs, the unemployment check, getting an apartment in public housing, signing a lease (13).

Actually, it appears that what he is saying is that he wants education so that he may live and deal with our society and with the bureaucracy which he feels surrounds him.

Each student should be provided with an instructional program in keeping with his ability in order that he may attain maximum self-realization. The instructional program should provide for equal educational treatment of students who are unequal in ability. The student should be allowed to develop in accordance with his own ability and his own rate of learning. He should be given a learning opportunity in proportion to his mental capacity as well as his physical capacity (18).

There seems to be fairly general consensus in the literature on juvenile delinguents and dropout students that common characteristics are lack of self-esteem and a feeling of not being wanted. Recent studies indicate that the major reasons for dropouts stem from inadequate curriculum and unsatisfactory student-teacher relationship. Gowan and Demos (19) pointed out in studies by Dillon (1949), Johnson and Legg (1948), and McCrery and Kitch (1953), based mostly on student reports, that it was concluded that most reasons for dropouts are school centered. Most common causes reported are: a history of school failure; dislike for school subjects; unsatisfactory student-teacher relationship; a feeling of not belonging; nonparticipation in school activities; and parents with low socio-economic status. A research study on the opinions of dropouts by Sando (20), seems to establish the fact that the basic guidance need of this group is the feeling that someone in the school really cares about them as people and genuinely wants to help them. This warm personal relationship apparently is the most important factor in keeping these children in school.

Summary

In summarizing the review of literature, one would have to conclude that the need of disadvantaged people, and especially youth, is great and education is at the top of the list of their needs. Education can help solve so many of their problems; through it they obtain knowledge whereby the solution of problems is greater enhanced. An educational program that will allow every child to become all that he is capable of becoming is essential to the child, society, and our country.

Every American child should have the opportunity to have as much education as his interest and his academic abilities will permit. This is not to say that he should have the same education as everyone. All are not gifted with the same amount of ability to learn. The process of education must be matched to the abilities and aptitudes of the individual students.

Massive evidence indicates that a meaningful education is not being provided to the disadvantaged. Reports indicate there are many dropouts from the schools. A large majority of these dropouts are influenced by health problems and a lessening of the family influence among the disadvantaged families. A 1965 study by the Office of Education indicated that about 30 percent of America's youngsters leave high school before graduation for a varying number of reasons, "dropouts" being at the top. It is a shame that there are not enough programs in the school systems to satisfy the needs of these students and better prepare them for life in America's society. Public schools in the United States report over 1,000,000 dropouts each year. The majority of these teenagers have no marketable skills, and Armspiger (18) has commented on the fact that there are thousands of unfilled

jobs each year, but that these jobs all required some skill. These young people need so desperately to have some skill in order to meet the needs of their life financially, and to help fill the positions open.

As stressed throughout this study, the disadvantaged are not very different in their yearnings, ambitions and desires from anyone else. It is true that their attitudes and opinions sometimes reflect a different view of their desires, and this lessens their probability of seeing their wants, ambitions, and desires fulfilled.

Attitude then is of utmost importance, and since the forming of attitudes begins with the youngsters, educational media must offer favorable studies that will increase the desire to learn and better themselves, thus creating a more willing and cooperative attitude toward learning and later toward the preparation of and acquiring gainful employment.

After an extensive review of literature pertaining to students with special needs the investigator was further assured that a study of attitudes toward education and preparing for gainful employment was worthy of investigation. The following chapter gives a description of the design and conduct of the study.

CHAPTER III

DESIGN AND CONDUCT OF THE STUDY

Introduction

With an awareness of increased emphasis now being placed on programs for the disadvantaged and because of the seemingly poor attitudes observed on the part of students classified as disadvantaged, this study of attitudes of the disadvantaged toward education and gainful employment was conducted. This chapter contains descriptions of the special instructional program administered as treatment and the population, an explanation of the procedures used for collecting data, examples of instruments used to measure attitudes toward education and preparation for gainful employment, as well as to measure the students' Intelligence Quotient. Statistical procedures used in testing specific objectives are also described.

The Study Population

A critical factor in planning and conducting the study was a determination and identification of an appropriate study population. After consultation with the Department of Agricultural Education staff at the Oklahoma State University and appropriate personnel of the Oklahoma State Department of Vocational-Technical Education, it was decided that the sites or schools chosen should be those which enrolled a relatively large number of students with special needs.

Student Selection

The students with special needs were to be chosen from ethnic groups consisting of whites, Negroes, and American Indians. Students chosen must possess at least one of the following characteristics to be eligible for inclusion in the study: (1) income of parents \$3,000.00 annually or below; (2) previous academic achievement places the student in the lower quartile of his entire class; (3) Intelligence Quotient score falling one standing deviation below the mean for test given.

School Selection

After establishing the characteristics of students with special needs, three schools were selected which had high proportions of students enrolled in Vocational Agriculture I who could be classified as students with special needs. Each school selected had a two teacher department providing two sections of Vocational Agriculture I. It also qualified as a school in which agricultural education student teachers were to be placed for both the fall and spring semesters of the 1969-70 school year.

All schools were located in the southeast supervisory district. Permission was received from the District Vocational Agriculture Supervisor to use the centers for the study. Each local teacher of vocational agriculture was visited in order to explain the content and procedure of the proposed program. The administrators of each school were visited and the program was explained and discussed with each of them. At the same time, the researcher visited with the vocational agriculture instructors at the respective schools to consult with each of them about the research project.

Intact, previously established classes of Vocational Agriculture I in each school were then randomly assigned into two groups, control and experimental, to comply with acceptable conditions conforming to demands for the type of research and data analysis techniques previously established. These are explained in a later section of this chapter.

The population for the study was selected using the aforementioned procedures. A total of 72 Vocational Agriculture I students from three Southeastern Oklahoma schools comprised the study population.

Development of the Special Teaching Program Materials

Special teaching program materials used in this study were developed and constructed to fit into the existing programs of vocational agriculture. The special instructional program was taught in the three schools by student teachers completing the requirements for a degree in Agricultural Education at Oklahoma State University, during the fall and spring semesters of the academic year 1969-70. Realizing that interest usually ran high in vocational agriculture programs, but that traditional programs often did not fully meet the total needs of each individual student, special emphasis was placed on developing instructional material designed and structured to be more relevant for students with special needs. Each unit of instruction was designed to follow and articulate with a preceding unit in order that the total program might be of maximum benefit.

Each student also received individual assistance as needed throughout the entire period on which the program was administered. It was felt that this was necessary in order to maintain a high level of interest among students and to keep enthusiasm high throughout the entire class, and further, to provide such individual instruction as often as necessary and possible.

Major emphasis was placed upon the terminal objective of enabling each student to realize the importance of completing further education and thus preparing himself for gainful employment. Emphasis was also directed toward developing the special instructional program in such a manner as to encourage the student to adequately express himself verbally and in writing, and to be able to conduct himself in a manner accepted in the business world.

Unit One: Oxygen-Acetylene Teaching Materials

The researcher realized the first step was to gain the attention of the students. It was hoped to do this by planning the first unit of instruction for the shop area. The researcher felt the shop area would be of interest to these students, and the unit in oxygen-acety-lene was prepared for instruction. Desiring the attention of these students who have previously shown very little interest in school, the researcher developed this unit on oxygen-acetylene for use as an initial instructional unit.

Operating on the premise that classroom work usually did not appeal strongly to students such as those comprising the population for this study, the researcher desired to find a way of presenting an interesting shop unit within a classroom setting. It was decided to use the overhead projector with detailed transparencies reflecting all the oxygen-acetylene equipment used in this procedure. The basic and necessary instruction on operating the oxygen-acetylene units was

clearly outlined in the transparencies. This afforded an opportunity for the students to study any one section or segment of the unit as long as necessary and to discuss and ask questions about the operation of and procedures for using the equipment.

Further interest was created by giving each student a prepared piece of 3 x 12 x $\frac{1}{4}$ inch metal with a classroom assignment to write his name on the metal using the cutting torch, and then to cut out his name. Caution was exercised to see that each student remembered the rules for using the cutting torch and the procedures for lighting and using same. The complete lesson outline with transparency masters for this unit of instruction is shown in Appendix A.

Unit Two: Grades of Slaughter and Feeder Cattle

By the time the unit on oxygen-acetylene had been concluded, it was felt that the students were sufficiently oriented both to instructors and to the nature of instruction. Cattle was chosen for the next unit of instruction because of a general consensus of opinion that livestock constituted a subject matter area more vivid and realistic for subjects of the study than might be true of other areas. The procedure for capturing the enthusiasm of the students was to use the imagination of the students and let them, through a process structured simulation, learn how to purchase and manage operations for feeder calves. Later, students would transfer learnings as to how to proceed with the other financial and managerial tasks involved in buying feed and selling calves on the basis of slaughter grades.

The slaughter and feeder cattle unit served a two-fold purpose; introducing students to the grades of slaughter and feeder cattle and

providing opportunities to apply practical mathematics. Often a weak area in the education of young boys defined as students with special needs, is mathematics. Simple arithmetic sometimes is not so simple for these students, and the researcher, desiring to improve the students' education, felt it would be to the benefit of these students to use simple arithmetic in figuring problems in which they were interested. Throughout this unit, the students used mathematics to calculate the financial aspects of simulated problems. Where possible, student teachers were encouraged to take students on field trips in order that they could gain first—hand experience in determining grades of cattle.

As a part of this unit, the students were given assignments requiring them to write a short paragraph describing and discussing each grade of slaughter and feeder cattle, thus creating a need for them to acquire and practice abilities in effectively putting ideas and thoughts into written form. This process was recognized as an aid in developing and refining communications skills. Again, visual aid materials and equipment were extensively utilized in administering and teaching this unit.

Appendix B contains a detailed lesson plan for this unit of instruction.

Unit Three: Buying Feeder Cattle and an Introduction to Banking and Financial Management

After developing a foundation for correct procedures in the purchase of feeder cattle, a unit was developed to more specifically detail various procedures incurred with such purchase, and the students were introduced to the bank and the part it can play in assisting an

individual with obtaining loans for such purposes.

First of all, this unit introduced the students to the market prices of all grades of feeder cattle. This afforded the student the opportunity to again use mathematics in figuring the estimated cost of cattle. Through field trips to nearby auction markets, students were exposed to communications procedures normally involved in making the necessary transactions for purchasing cattle. It was felt this was an informal, but effective procedure for increasing communications skills.

It was assumed that since students had at this time a sufficient amount of knowledge concerning the purchase of feeder cattle, the subject of financial assistance and banking was a logical next area appropriate for study. It was further recognized that students had very little experience or knowledge about the procedures of obtaining a loan from a bank for such purposes. As a possible source of financial help and management of any enterprise, the operations and procedures of a bank are very important for young men to understand.

The previously mentioned field trips to local auction markets served another purpose in regard to study of banking and financial management. Motivation was developed through these short field trips when the students were required to "purchase" calves for their "simulated" cattle operation.

Appendix C contains the lesson outline for this instructional unit.

Unit Three-A: Fundamentals of Banking with Emphasis on Banking Terms

In today's modern society most everyone often needs financial assistance. In order to build on previous units taught and look forward to other units to be covered, it was felt necessary that a unit on

terms pertaining to banking be covered in order to teach the total curriculum more effectively. The following list of terms was defined and explained for the students by giving them actual examples of situations in coversation when they might use the terms.

- 1. Deposit
- 2. Withdrawal
- 3. Teller
- 4. Depositor
- 5. Interest
- 6. Cashier
- 7. Endorse
- 8. Currency
- 9. Account
- 10. Collateral
- 11. Security
- 12. Note
- 13. Principle
- 14. Mortgage
- 15. Loan
- 16. Bank Draft

As an additional portion of this instructional unit, each student was required to define in writing each of the above terms.

The unit of instruction on banking terms is included in Appendix D.

Unit Three-B: Discussion of Topics Related to Banking

On the basis of interest created toward banking and feeder and slaughter cattle and with emphasis on expanding curriculum units

previously taught, further topics of discussion pertaining to banking were considered necessary to build the remainder of the instructional units. Special efforts were made to involve students in a verbal discussion of the topics covered in this unit for the purpose of encouraging the students to demonstrate and practice their communication abilities. Students were informed at this time that in a few days they would be establishing a simulated bank, securing a simulated loan, buying and feeding their make-believe cattle, and then selling the group of slaughter cattle. Appendix E contains the teaching unit for this area of instruction.

Unit Three-C: Fundamentals of Banking with Emphasis on the Bank Signature Card

Importance of a bank signature card was stressed in this unit of instruction. Each student was given an actual bank signature card. They were then instructed and assisted in filling out the card with special instructions and emphasis on the importance of clearness of signature and the use of an ink type pen when signing the card. This teaching unit and an example of the signature card are to be found in Appendix F.

Unit Three-D: Fundamentals of Banking with Emphasis on the Deposit Slip

An actual example of a deposit slip was presented to the students for this unit. Students were required to demonstrate their ability to fill out the deposit slip. Individual instruction was given to each student as needed. The importance of being accurate and always giving

the correct name and/or deposit number were stressed. Shown in Appendix G is this teaching unit with the example of the deposit slip used in the classroom illustration.

Unit Three-E: Fundamentals of Banking with Emphasis on Writing the Checks

The previously described units covered areas of banking including depositing money in the bank. A unit on check writing seemed appropriate at this time. Important areas pertaining to check writing were covered in this unit of instruction, including the importance of signing the check the same way each time and always using an ink type pen rather than a pencil when making out the check. The "check writing" unit is contained in Appendix H along with a sample of the type of check used in the classroom situation.

Unit Three-F: Fundamentals of Banking with Emphasis on Drawing from a Savings Account

The advantages and disadvantages of savings accounts were discussed in this unit of instruction. Students were given a working example of making a withdrawal from a savings account, then each student made a withdrawal from a make-believe savings account. Appendix I contains this teaching unit plan.

Unit Three-G: Fundamentals of Banking with Emphasis on Figuring Interest and Types of Accounts

Checking accounts, savings accounts, bank statements, and interest rates were the subject areas covered in this unit. This unit of

instruction concluded the units on banking, and it was felt that the students had received a thorough orientation to the more common procedures of a bank. The curriculum up to this point had been concerned with providing the necessary information to show the business of banking more clearly to the students who normally have had no exposure to a kind of experience which is often taken for granted by other people. The students were shown how to figure interest rates, and this in turn, was another instance where the student had the opportunity to use mathematics in a manner which was practical for him. Appendix J contains the teaching materials for this unit of instruction.

Unit Three-H: Banking (Borrowing Money to Feed and Buy Cattle)

This particular unit, contained in Appendix K, specified eight basic assumptions under which all students were to operate for borrowing money to buy and feed a group of cattle. These were as follows:

- Each student is ready to buy a group of feeder calves to put in the feed lot.
- 2. Time and all other factors are conducive to feeding cattle.
- 3. Students know how many steers they are going to feed; how much feed will be required; what the present market is; and what the future market looks like.
- 4. Students have selected the grade of feeders they want to buy.
- 5. Students know the length of time they plan to feed the cattle.
- 6. Students can figure interest rates.
- 7. Students can discuss the banking terms covered in a previous unit.

8. Students have figured the total expected cost of feeding the steers and can discuss this with the banker.

Considering that the students were familiar with all materials covered up to this unit of instruction, this unit and the following were the capstones for this series of instructional units.

A simulated banking situation was established in the classroom. Each student served as an employee of the bank making a loan, and each student in the class secured a "make-believe" loan to feed out a group of cattle. Each loan was discussed and the procedures normally used in making loans were emphasized in each simulated situation.

Special emphasis was again placed on figuring simple arithmetic, expressing oneself and meeting the public. Communication skills, both verbal and written, were stressed in this unit. Details of these procedures are to be found in Appendix K.

Unit Four: Selling Slaughter Cattle

The final portion of the total structured teaching program is found in this unit. The objectives of this unit are listed below and are also found in Appendix L.

- 1. Students will be able to figure commission for selling cattle and other expenses involved.
- 2. Students will be able to figure the value of a steer (on hoof) when given the gross weight and price per pound.
- 3. Students will be able to figure the dressing percentage of slaughter cattle and the value of the carcass when given the price per dressed pound.
- 4. Students will be able to make comparisons and determine

- the best way to market animals through the local auction or through the local butcher.
- 5. Students will be able to write a business letter to the local auction in regard to selling cattle.
- 6. Students will be able to write a business letter to the local butcher in regard to marketing cattle.
- 7. Students will sell their calves (some to the local auction and some to the local butcher).
- 8. Students will be able to determine profit and loss in selling cattle.
- 9. Students will be able to demonstrate payment of their bank loans to the simulated bank in the classroom.
- 10. Students will be able to write a letter to the banker expressing appreciation for his help in financing the cattle operations.
- 11. Students will be able to write a paper discussing banking, buying feeder cattle, feeding out cattle, and selling slaughter cattle on the rail and on the hoof.

Attempts were made from the first unit of instruction to the last to build the areas of instruction one upon the other in the areas of buying, feeding, and selling cattle. A concerted effort was made to teach basic areas of mathematics and communications throughout these subject units in the hope that the subject matter would make such teaching more relevant to these special needs students.

Unit Five: Securing Employment

With the strong possibility that some of these students might

discontinue their education before completion of high school, the researcher felt that a unit on securing employment would be a relevant way to point out the importance of education and the importance of preparing for gainful employment. This unit was broken down into six areas of instruction and again selected simulated conditions were established in the classroom. The instructional areas were:

- 1. <u>Selecting a Job</u>: Students were encouraged and assisted in selecting a job suited to their interests.
- 2. Writing Letters of Inquiry: After areas of possible employment had been established, students wrote letters to prospective "make-believe" employers inquiring about possible employment.
- 3. Writing a Letter of Reply to Inquiry About a Job: Students were paired and each student answered his partner's letter of job inquiry answering all questions stated in the letter.
- 4. Filling Out Job Application: Each student filled out a job application form pertaining to the job he selected for study at the beginning of this unit.
- 5. Preparation for Interview: Students were instructed as to the proper way to conduct an interview and discussed the possible questions that might be brought up during a job interview. A simulated post office was established in the classroom to familiarize students with accepted procedures. As each letter was written, the student mailed his letter to the prospective employer, and in turn, the prospective employer wrote a letter of reply.
- 6. Simulated Interview: A simulated business office was

established where each student alternately played the role of employee and employer, thus serving as both the interviewee and interviewer for the selected job. Complete teaching units for this unit are found in Appendix M.

The terminal objective of all these units of instruction was to establish the importance of education and preparation for gainful employment. Efforts were made at all times to improve the students' abilities to communicate both verbally and in writing. All aspects were developed pertaining to vocational agriculture in an effort to make the subject matter under consideration more relevant to the students' needs.

Administration of the Special Teaching Program Materials

The specialized teaching program materials developed by the investigator were administered to the experimental student group for a total of 27 weeks beginning November 10, 1969. The student teachers assigned to the respective schools for the fall semester, 1969, alternated in administering the special curriculum for a nine week period which ended January 9, 1970. The teaching program was administered by the supervising teachers during the nine week interim between the fall and spring semester. Then, student teachers again in each of the schools taught the special materials for the latter one-fourth of the total year school (March 23 to May 15, 1970).

While the specially developed teaching program was being administered in the above described manner, a conventional-type instructional program was being offered simultaneously to the control student group by the other student teacher and/or supervising teacher, depending upon

whether student teachers were assigned to the schools at that particular time. This procedure was possible because each of the schools had two full-time teachers and the student teachers were assigned in pairs.

Collection and Analysis of Data

Procedures selected for collection and analysis were dictated primarily by the purpose and design of the study. Because this research effort was experimental in nature and conducted in actual educational settings, the investigator felt confronted by a similar condition to that described by Popham (21) with his statement:

The researcher who begins to probe educational problems will soon encounter situations where he must employ a student sample in an actual school setting

Unfortunately, however, it is usually very difficult for school teachers and administrators to cater completely to the wishes of the researcher regarding the manipulation of students for experimental purposes. It is often impractical to move students from one teacher to another, or from one curriculum to another, in order to help the experimenter work out a "tight" research design. The researcher must, therefore, resign himself to the necessity of dealing with "intact" student groups on many occasions.

Design of the Experiment

Because of the use of intact groups of students and therefore a lack of sampling, and because of the desire to determine if the specially-designed instruction had a casual effect on selected attitudes of students included in the study, an experimental research design was employed. Specifically, a non-equivalent control group design, utilizing pre and post-trestment measurements to determine the effects of a treatment was selected. This procedure has been labeled "Design 10" by

Campbell and Stanley (22) and who stated:

One of the most widespread experimental designs in educational research involves an experimental group and a control group both given a pre-test and a post-test, but in which the control group and the experimental group do not have pre-experimental sampling equivalence. Rather, the groups constitute naturally assembled collectives such as classroom, as similar as availability permits but yet not so similar that one can dispense with the pre-test. The assignment of X to one group or the other is assumed to be random and under the experimenter's control.

The design may be portrayed graphically as follows:

Experimental
$$\frac{O_1}{O_3} \times \frac{O_2}{O_4}$$

The independent variable of the study was the special instructional program administered to the students in the experimental group. The dependent variables included differences in scores of the pre-test and post-test as to the students' attitudes toward education and gainful employment of those students in the special program and the students in the traditional program.

Analysis of the Data

Because it was necessary to utilize intact groups of Vocational Agriculture I students, the investigator was aware that, as stated by Downie and Heath (23), "It sometimes happens that the experimenter cannot completely control all the variables relevant to his research." In other words, many relevant variables might possibly confound the relationships of factors being studied. Therefore, the investigator deemed it essential to select a statistical tool for testing the significance of differences among variables which could have been influenced by one or more uncontrolled variables.

Further, the investigator realized that the dependent variable under study, attitudes of special needs students toward further education and gainful employment, could be influenced by other variables which could not be controlled. Among these were students' past scholastic achievement (grade point averages), innate intellectural capacities (I.Q.), ethnic group (white, Negro, American Indian), income level of parents, and pre-test and post-test scores. Analysis of covariance was selected as a procedure applicable to this study situation on the basis of a number of factors discussed by Popham (21), who contended that this procedure was of considerable value and pointed out:

This technique, an extension of the analysis of variance model combined with certain features of regression analysis, provides a useful statistical device for educational investigators. In brief, analysis of covariance may be used when a relationship is being studied between a dependent variable and two or more groups representing an independent variable. This powerful technique allows the researcher to statistically equate the independent variable groups with respect to one or more variables which are relevant to the dependent variable. To put it another way, analysis of covariance allows the researcher to study the performance of several groups which are unequal with regard to an important variable as though they were equal in this respect. . .

Not only can group differences in one relevant variable be compensated for by analysis of covariance, but any number of variables relevant to the dependent variable can be statistically adjusted so that they do not confound the analysis of the independent - dependent relationship under investigation.

The general model for calculation of analysis of covariance selected for this study was as follows:

$$Y = \mu + B_1 X_1 + B_2 X_2 + B_3 X_3 + \phi + \gamma + \tau + E$$

As related to this investigation, inputs into the above model were:

Y = Post-Test

μ = Arithmetic Means

 $X_1 = Pre-test$

 $X_2 = I.Q.$

 X_3 = Grade Point Average

φ = Groups (Experimental and Control)

 γ = Schools

T = Minority Groups

E = Error Terms

Aside from the analysis of covariance, item counts and percentages were utilized where appropriate for selected data. The latter procedures applied primarily to the teachers' estimates of the relative degree of improvement students had made in regard to selected variables applied during the course of the study.

Collection of the Data

The required inputs for the analysis of covariance model were major determinants of the types of data collected and the procedures utilized in collection of data, discussion of which is included in the following sections.

Attitudes Toward Education and Gainful Employment. These factors were selected as the dependent variables of the study. To provide a basis for determining changes in these attitudes, pre-tests and post-tests were administered to students at the beginning and end of the experiment, respectively. Attitudes toward education were determined with an instrument developed by Rundquist and Sletto (24). This 22 item, Likert-type scale had corrected split-half reliabilities of .82 and .83, based upon samples of 500 males and 500 females respectively. Permission to use this instrument was secured by the investigator from

Mrs. Carol Krommingo of the University of Minnesota. A copy of the instrument and letter of permission are included in Appendix N.

An extensive review of literature disclosed no instrument to measure attitudes toward preparing for gainful employment. A test, utilizing a Likert-type scale, was developed by the investigator for this purpose.

The first draft was evaluated by a group of graduate students in the Department of Agricultural Education at Oklahoma State University. The test was then revised by incorporating the suggestions of the graduate students and a 44 item test was finally formulated.

The test was given to 97 sophomore and junior students enrolled in Agricultural Education at Oklahoma State University during the fall of 1969. These tests were graded and evaluated to determine the positive and negative statements in the instrument. A statement was considered positive when the scores of those taking the test fell toward the side of the scale that agreed with the statement. If the scores fell on the "disagree" side of the scale, the statement was considered negative.

Once the negative and positive statements were determined, the test was given to 34 students enrolled in Vocational Agriculture I in a high school near Stillwater to recheck the positive and negative statements and determine the reliability of the test from the standpoint of high school students. Because no major differences were observed between the responses of those two groups of students, the test was accepted as having sufficient reliability for the purposes of the experiment. The Spearman-Brown Statistical Formula (25) disclosed that when the responses of the two groups of students were compared, the test had a reliability coefficient of .61. Also, the investigator assumed

the test had adequate face and content validity relative to its purpose. A copy of this test is contained in Appendix O.

Intelligence Quotient. The California Short-Form Test of Mental Maturity (Level Three) was administered to measure students' intellectual capacities. This instrument has a mean of 100 and a standard deviation of 16, according to Sullivan (26). The completed tests were scored by the Tests and Measurement Department at the Oklahoma State University.

Grade Point Average. As a means of determining students' past academic achievement, an overall grade point average for the school year 1968-69 was calculated for each according to the following scale: A = 4; B = 3; C = 2; D = 1; and F = 0. Grade point averages of all Vocational Agriculture I students in the same school were then compared. Students ranking in the lower quartile of the respective classes were considered to be potentially classifiable as disadvantaged students.

Study Groups (Treatment and Control). Each of the three schools selected for the study had relatively high proportions of special needs students. Also, each had two full-time vocational agriculture teachers and two separate sections of Vocational Agriculture I students. These intact groups of students were assigned to treatment and control categories. The treatment group received the previously discussed specialized curricula, while the control group received the traditional instructional program.

Minority Groups. Three types of students were considered in establishing these groups. The categories included whites, Negroes, and American Indians.

Teacher Observation of Student Progress. In order to arrive at

some information considered important, but not testable by the investigator, each full-time and student teacher was asked to estimate the amount of improvement students in the specialized program had exhibited in regard to selected variables over the course of the study. These variables related to students' self-confidence, class participation, interest, attitude toward and attendance at school and also toward the world of work. The instrument developed by the investigator for this purpose appears in Appendix P.

CHAPTER IV

RESULTS OF THE STUDY

Introduction

As stated in the previous chapters of the study, the primary purpose of the study was to measure the effects of a specially prepared teaching program presented to students adjudged as students with special needs. Attempts were made to determine if any measurable change could be seen in the students' attitudes toward school and preparation for gainful employment as a result of receiving instruction in the specially designed program as compared to students in a traditional program of Vocational Agriculture I. Also, observed differences in communication ability and school attendance were evaluated.

It was the intent of the research to clearly show the results of the study in this chapter. Results are presented in various stages, including a breakdown of the student population; study findings related to students' attitudes toward education and employment; cooperating teachers' estimates of relative degrees of improvement observed at the conclusion of the program; student teachers' estimates of relative degrees of improvement observed at the conclusion of the program; and the researcher's judgments of student behavioral change and the program effectiveness as a result of his personal observation and supervising activities during the course of the study.

Student Population

The population for the study was comprised of students enrolled in Vocational Agriculture I in three selected high schools located in Southeastern Oklahoma. At the beginning of the study, there was a total population of 72 students. As indicated in Table I, six of the original students were dropped from the program - five dropping out of school and one being transferred to another class. In addition to these drop-outs, five additional students were dropped from the study because of the researcher's inability to obtain necessary information relative to grades achieved by these students during the previous school year.

TABLE I

COMPOSITE OF POPULATION BY SCHOOLS

Research Center	Number of Beginning of Study	Drop-Outs	Dropped for Insufficient Grades	Number at Close of Study
School A	24	2	3	19
School B	16	. 1	2	13
School C	32	. 3	0	29
Total	72	6	5	61

As indicated in Table I, School A had a beginning population of 24. Prior to the completion of the research study, one student dropped out of school, and one student was dropped from the research program because he was transferred to another class. Three students from School A were dropped from the study because their eighth grade attendance was at a school other than School A, and grades from these schools were unavailable to the researcher. A total of 19 students from School A remained in the study at the close of the research program.

Enrollment at School B at the beginning of the study was 16, with an enrollment of 13 at the close of the program. School B had a decline of three in enrollment, there being one student who dropped out and two others who were deleted because of unavailability of previous grades from a school other than School B.

The enrollment for School C at the close of the program was 29.

There were three students who dropped out of school thus bringing the initial enrollment of 32 students down to the closing enrollment of 29.

Population by Schools, Ethnic Groups and Treatment Categories

Data presented in the following three tables, II, III and IV, were broken down by schools in order to provide additional details about the student population. The population was sub-divided into two categories, experimental and control - the experimental group being those who were taught the specially designed curriculum for the specific purpose of this research effort and the control group being those who remained in the traditional Vocational Agriculture I class.

Table II shows the ethnic groups of the research program in School A. School A's population included 11 white students and eight American Indian students.

As indicated in Table II, the experimental group in School A was

composed of six whites and six American Indians making a total of 12 students in this group. The population of the control group for School

TABLE II

ENROLLMENT BY ETHNIC GROUP
FOR SCHOOL A

	White	American Indian	Negro	Total
Experimental Group	6	6	0	12
Control Group	5	2	0	7
Total	11	8	0	—— 19
TOUGI	T.T.	6	O	19

A was two American Indians and five whites, thus making a total of seven in the control group.

Table III shows the study population as to ethnic groups and describes the research population, both experimental and control, for School B.

The experimental group in School B was composed of three each in the white and American Indian groups. The total experimental group population in School B was six. The control group had two categories of students also, containing three American Indians and four whites respectively. There was a total of seven in the control group of School B and a total of 13 for the entire research population at School B.

TABLE III

ENROLLMENT BY ETHNIC GROUP
FOR SCHOOL B

	White	American Indian	Negro	Total
Experimental Group	3	3	0	6
Control Group	4	3	0	7
Total	7	6	0	13

Table IV describes the population as broken down by ethnic groups for School C.

TABLE IV

ENROLLMENT BY ETHNIC GROUP
FOR SCHOOL C

	White	American Indian	Negro	Total
Experimental Group	, 10	0	. 2	12
Control Group	14	. 0	3	17
Total	24	0	5	29

Both the experimental and control groups were composed of whites and Negroes. A more specific breakdown shows that there were ten

whites in the experimental group as compared to 14 in the control group. The experimental group had two Negroes and the control had three. There was a total of 24 whites and five Negroes comprising a total research population of 29 for School C.

Table V is a combination of Tables II, III, and IV and was developed to present a summary of the population distribution by schools, treatment categories and ethnic group.

TABLE V

STUDY POPULATION BY TREATMENT CATEGORY,
SCHOOLS AND ETHNIC GROUPS

Treatment Category (By Ethnic Groups)	Distribution by Schools			Proportion of Total Population	
	School A	School B	School C	$\frac{N = 61}{N}$	
Experimental:				1/1	
White	6	3	10	19	31.15
Indian	6	·3	0	9	14.75
Negro	0	» O	2	2	3.28
Sub-Total	12	6	12	30	49.18
Control:					
White	5	4	14	23	37.70
Indian	2	3	0	5	8.20
Negro	0	.0	3	3	4.92
Sub-Total	7	7	17	31	50.82
Total	19	13	29	61	100.00

As shown by data in Table V, the number of students was relatively close when comparing the experimental group with the control group in each school. School A had a total of 12 students in the experimental group and seven students in the control group. School B's population was even more equally divided with six students in the experimental group and seven students in the control group. School C had the largest population of all three centers. There were 12 students in the experimental group and 17 in the control group.

Both the experimental and control groups had a larger number of whites than any other ethnic group, with the second largest ethnic group being American Indian, and the Negro group having the smallest number of students in the study.

Each of the three schools had two ethnic groups. The populations from Schools A and B were made up of whites and American Indians, and School C's population was composed of whites and Negroes. School A and School B each had whites and Indians in both the experimental and control group. School C had both whites and Negroes in each of the two groups.

The total population secured from School A was 19, School B had 13 and School C had 29, thus yielding a total study population of 61 students. Overall, the study population was well distributed in terms of numbers of students assigned to experimental and control groups, there being 30 and 31 students in these groups respectively. Also, there was a relatively high degree of balance relative to the numbers of students from the various ethnic groups assigned to the two treatment categories, (i.e., there was good "between groups" balance).

Determination of Disadvantaged and/or Special Needs Students

It was established in the earlier parts of this research that to be classified as disadvantaged and/or special needs students, a student had to possess at least one of the following characteristics:

- 1. Negro, American Indian, or white students whose parents' annual income was below \$3,000.00.
- 2. Students of any race whose previous academic achievement placed them in the lower quartile of their entire class for the previous academic school year.
- 3. Students of any race with individual scores falling one standard deviation below the established mean of the test used to measure Intelligence Quotient.

Following the previously described procedure, any student regardless of race, who had at least one of the aforementioned characteristics was considered a disadvantaged and/or special needs student. It was felt that this procedure would avoid discrimination against any particular race.

Table VI was developed to present the distribution of disadvantaged students by ethnic groups and to show the score of their disadvantagement. Of the 43 total disadvantaged students, there were 13 students who were classified as disadvantages solely because of low income. Breaking these 13 students down even further reveals nine to be white, one to be Negro, and three to be Indian. The 13 low income students comprise 30.24 percent of the sample.

It was interesting to find, in a study such as this, that there were no students classified as disadvantaged by low achievement alone.

All those with grade point averages that placed them in the low

achievement bracket had some other factor lending to their being classified as disadvantaged.

TABLE VI

DISTRIBUTION OF DISADVANTAGED STUDENTS BY
ETHNIC GROUP AND TYPE OF DISADVANTAGEMENT

Type of		Ethnic Groups					Total by Type of	
Disadvantagement	W	hite		Negro	I	ndian	Disadvantage- ment	
	N	%*	N	%*	N	% *	N	%*
Low Income	9	(20.93)	1	(2.33)	3	(6.98)	13	(30.24)
Low Achievement	0		0		۰0		0	
Low I.Q.	2	(4.65)	0		.0		2	(4.65)
Low Income and Achievement	3	(6.98)	0		0		3	(6.98)
Low Income and I.Q.	4	(9.30)	4	(9.30)	3	(6.98)	11	(25.58)
Low Achievement and I.Q.	1	(2.33)	0		1	(2.32)	2	(4.65)
Low Income, Achievement and I.Q.	6	(13.95)	0		6	(13.95)	12	(27.90)
Total	25	(58.14)	5	(11.63)	13	(30.23)	43	(100.00)

^{*}Percentage of Total Disadvantaged Group

Only two students (4.65 percent of the total 43 disadvantaged students) were disadvantaged because of the one factor - low I.Q. Both of these students were in the higher income and higher achievement

brackets with their only disadvantaged characteristic being low I.Q.; both students were white.

There was a total of three students who had both the disadvantaged characteristics of low income and achievement. These three students (6.98 percent of the total 43 disadvantaged students) scored above 84 on the I.Q. test, and all three were white.

For the low income and I.Q. bracket, there was a total of 11 students: four whites, four Negroes, and three Indians. Each of these 11 students ranked high enough in their previous school year grades to be termed adequate for the purposes of this study in achievement.

There were two students (4.65 percent of the total 43 disadvantaged students) possessing the combination of low achievement and I.Q. to be placed in the disadvantaged group. One student was white, and one was Indian.

Of the 12 students possessing all three characteristics for being disadvantaged, six were white and six were Indian. These 12 students represent 27.90 percent of the total 43 disadvantaged student population.

A breakdown of ethnic groups of the 43 disadvantaged students as shown in Table VI can be summed up as: 25 (58.14%) white students; five (11.63%) Negroes; and 13 (30.23%) Indians.

There was a larger percentage (30.24%) of the students possessing the one factor, low income, than any other factor. Twelve students (27.90%) possessed all three factors - low income, achievement and I.Q. - making this the second largest type of disadvantagement. Low income and achievement was the next lowest disadvantagement with 11 students (25.58%). The remaining seven students were: three (6.98%) income and achievement; two (4.65%) low income and I.Q.; and two (4.65%) low I.Q.

alone.

Advantaged and Disadvantaged Student Population

All students comprising the population of the study who did not possess at least one characteristic of disadvantagement were categorized as advantaged. Table VII is a summary of the population by advantaged and disadvantaged categories and ethnic groups.

TABLE VII

POPULATION DISTRIBUTION BY ADVANTAGED AND DISADVANTAGED
CATEGORIES AND ETHNIC GROUPS

		Category				Total by	
Ethnic Group	Advantaged		Disadvantaged		Ethnic Group		
· · · · · · · · · · · · · · · · · · ·	N	%*	N	% *	N	%*	
White	17	(27.87)	25	(40.98)	42	(68.85)	
Negro	0		5	(8.20)	5	(8.20)	
American Indian	1	(1.64)	13	(21.31)	14	(22.95)	
Total	18	(29.51)	43	(70.49)	61	(100.00)	

^{*}Percentage of Total Population

Inspection of the table reveals that there was a total population of 61 students. Only 18 students (29.51 percent) were advantaged and were distributed as follows: white - 17 students (27.87%); Negroes - none; and Indians - 1 student (1.64%). Forty-three students (70.49%)

were disadvantaged and included 25 white students (40.98%), five Negro students (8.20%), and 13 Indian students (21.31%). Of the total population, 42 students (68.85%) were whites; 5 students (8.20%) were Negroes; and 14 students (22.95%) were Indians.

Study Findings Related to Student Attitudes
Toward Education and Gainful Employment

Determination of whether a specially-formulated vocational agriculture instructional program would have significant effects upon the attitudes of selected students toward education and gainful employment was of major concern in this research effort. In order to arrive at this, hypotheses were formulated to allow testing of the significance of the differences between program effects as related to selected variables. These hypotheses, stated in the null form, were as follows:

- 1. There is no significant difference in the attitude toward education of students in the special instructional program and the students in the traditional vocational agriculture course as measured by a pre-test, post-test gain score.
- 2. The attitude toward gainful employment is not significantly different between students enrolled in the special instructional program as compared to those enrolled in the traditional program as measured by a pre-test, post-test gain score.
- 3. The attitude toward education is not significantly different between disadvantaged students enrolled in the special instructional program as compared to disadvantaged students enrolled in the traditional Vocational Agriculture I

- instruction program as measured by a pre-test, post-test gain score.
- 4. The attitude toward gainful employment is not significantly different between disadvantaged students enrolled in the special instructional program as compared to disadvantaged students enrolled in the traditional Vocational Agriculture I program as measured by a pre-test, post-test gain score.
- 5. The attitude toward education is not significantly different between advantaged Vocational Agriculture I students enrolled in the special instructional program as compared to advantaged students enrolled in the traditional Vocational Agriculture I program as measured by a pre-test, post-test gain score.
- 6. The attitude toward gainful employment is not significantly different between advantaged Vocational Agriculture I students enrolled in the special instructional program as compared to advantaged students enrolled in the traditional Vocational Agriculture I program as measured by a pre-test, post-test gain score.
- 7. There is no measurable or observable difference in the persistence of attendance of students enrolled in the special instructional program as compared with students enrolled in the traditional vocational agriculture program.
- 8. There will be no observed difference in the communication abilities of students enrolled in the special instructional program as compared with students enrolled in the traditional vocational agriculture program.

The following portion of this chapter deals with the presentation, analysis and discussion of data relative to testing of the aforementioned hypotheses. The use of students in an actual school setting presented a problem relative to the analysis of data. Students normally differ in ability and aptitude, thus, it was necessary to equate each student on the basis of certain measurable indices of ability and aptitude to reduce the possibility of obtaining a biased measure of the effect of the independent variable. The analysis of covariance was used to equate statistically all students on the basis of three selected covariates. Pre-test scores provided a measure of the attitudes toward education and gainful employment at the beginning of the study, I.Q. scores were used to equate on the basis of scholastic ability, and the grades earned during the previous academic school year were used as a measure of previous achievement.

All computations reported in this section were obtained by use of the "BMDO4V Analysis of Covariance - Multiple Covariates" computer program made available through and administered by the Computer Center at Oklahoma State University. The basis for determining whether observed differences were significant was the calculated F value at the .05 level of probability. The F values required for significance with the applicable degrees of freedom were secured from Popham's (21) Table G.

It should be noted that the following comparisons were made on the pre-test and post-test scores of students in the two treatment groups and that each of these measures consisted of two divisions — one to measure student attitudes toward education and the other to measure attitudes toward gainful employment. Therefore, although these tests were considered to be single measures, they actually each consisted of

two divisions and are treated separately in the presentation of the findings.

Attitudes Toward Education of the Two Treatment Groups

Initially, the total constituency of the two treatment groups, experimental and control, were compared. Table VIII was developed to illustrate the mean scores of these groups on the covariates selected for the study.

TABLE VIII

COVARIATE MEANS OF TREATMENT GROUPS FOR ATTITUDES TOWARD EDUCATION

Treatment Group		Mean Scores				
	Pre-Test	Intelligence Quotient	Grade Point Average	Post-Test		
Experimental	82.73	79.63	1.80	82.10		
Control	86.32	93.77	2.42	86.90		

As can be seen from this table, the mean pre-test, post-test scores of both groups differed only slightly, with the experimental group mean being a fraction lower on the post-test. The control group mean scores on each of the covariates were higher than those of the experimental group. The scores depicted here served as inputs for testing the first hypothesis.

Findings presented in Table IX show analysis of covariance on

attitude toward education scores of the experimental and control groups.

TABLE IX

ANALYSIS OF COVARIANCE ON ATTITUDE TOWARD EDUCATION
SCORES OF EXPERIMENTAL AND CONTROL GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Means Squares	F
Treatment (Between)	1	1.9062	1.9062	
Error (Within)	56	6572.5156	117.3663	
Total	57	6574.4219	1.9062	0.016

P .05 \geq 4.02 (with 1 and 56 degrees of freedom)

A pre-test and a post-test designed to measure attitude toward education was given to both the experimental and control groups. This was intended to provide a basis for testing a general hypotheses that there would be no significant difference in the attitude toward education of students in the special instructional program and the students in the traditional vocational agriculture course as measured by a pretest, post-test gain score. Table G in Popham (21) revealed that an F value of 4.02 for one and 56 degrees of freedom was necessary for the difference to be considered significant at the .05 level. The F value of this test was 0.016. This F value was not significant; therefore, the null hypothesis (HO1) was accepted.

Attitudes Toward Gainful Employment of the Two Treatment Groups

Data presented in Table X show the covariates means of both treatment groups for attitudes toward preparing for gainful employment.

TABLE X

COVARIATE MEANS OF TREATMENT GROUPS FOR ATTITUDES

TOWARD PREPARING FOR GAINFUL EMPLOYMENT

	Mean Scores					
Treatment Group	Pre-Test	Intelligence Quotient	Grade Point Average	Post-Test		
Experimental	169.30	79.63	1.80	172.40		
Control	175.84	93.77	2.42	178.29		

Illustrations in this table show an increase of the means of the pre-test, post-test scores of both groups with the means scores of each of the other covariates being somewhat higher for the control group as compared to the experimental group. Scores illustrated in this table provided inputs for test of the second hypothesis.

Another pre-test and post-test to measure attitude of students toward preparing for gainful employment was given to both the experimental and control groups. The general hypothesis under test stated that there would be no significant difference in the attitude toward gainful employment of students in the special instructional program and the students in the traditional vocational agriculture course as measured by a pre-test, post-test gain score.

TABLE XI

ANALYSIS OF COVARIANCE ON ATTITUDE TOWARD PREPARING FOR
GAINFUL EMPLOYMENT SCORES OF THE EXPERIMENTAL AND
CONTROL GROUPS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F
Treatment (Between)	1	17.3984	17.3984	
Error (Within)	56	16658.6602	297.4761	
Total	57	16676.0586	17.3984	0.058

P .05 > 4.02 (With 1 and 56 degrees of freedom)

Again, by using Popham's (21), Table G, it was found that in order to have significant difference, an F value of 4.02 for 1 and 56 degrees of freedom at the .05 level was required. Because the F value in this comparison was only 0.058, no significant difference existed between the treatment groups. Therefore, the null hypothesis (HO2) was accepted.

Attitudes Toward Education of Disadvantaged Students

Contained in Table XII are data on the covariate means of the treatment disadvantaged and control disadvantaged groups of their attitudes toward education.

Inspection of data shown in Table XII gives an indication of the mean I.Q., grade point average, pre-test and post-test scores of disadvantaged students in both groups. The experimental group showed a

TABLE XII

COVARIATE MEANS OF DISADVANTAGED TREATMENT GROUPS
FOR ATTITUDE TOWARD EDUCATION

Treatment Group	Mean Scores					
	Pre-Test	Intell i gence Quotient	Grade Point Average	Post-Test		
Experimental	82.15	75.58	1.73	81.76		
Control	84.53	85.94	2.03	84.70		

slight loss in the post-test score. The control group mean scores on each of the covariates were higher than those of the experimental group. The scores depicted here served as inputs for testing the third hypothesis.

TABLE XIII

ANALYSIS OF COVARIANCE ON ATTITUDE TOWARD EDUCATION SCORES OF EXPERIMENTAL AND CONTROL GROUPS OF DISADVANTAGED STUDENTS

Source of Variation	Degree of Freedom	Sum of Squares	Mean Squares	F
Treatment (Between)	1	2.8242	2.8242	
Error (Within)	38	4314.9102	113.5503	
Total	.39	4317.7344	2.8242	0.025

P .05 \geq 4.10 (With 1 and 38 degrees of freedom)

It was hypothesized that there would be no significant differences between the pre-test, post-test gain scores on attitudes toward education of disadvantaged students in the two treatment groups under study. Findings shown in Table XIII report the results of testing this hypothesis. Inspection of this table reveals that the calculated F value was 0.025 which was far below the 4.10 F value required to indicate that a significant difference existed between the groups. Therefore, it was necessary to accept the hypothesis as stated.

Attitudes Toward Gainful Employment of Disadvantaged Students

Covariate means for treatment disadvantaged and control disadvantaged for attitudes toward gainful employment are shown in Table XIV.

TABLE XIV

COVARIATE MEANS OF DISADVANTAGED TREATMENT GROUPS
FOR ATTITUDE TOWARD GAINFUL EMPLOYMENT

Treatment Group	Mean Scores					
	Pre-Test	Intelligence Quotient	Grade Point Average	Post-Test		
Experimental	168.23	75.58	1.73	171.77		
Control	172.53	85.94	2.03	176,18		

Both the experimental and control groups showed an increase between the means of the pre-test and post-test scores. The control group shows higher means for the covariates than the experimental group. Means depicted in this table served as inputs for testing Hypothesis Number Four.

TABLE XV

ANALYSIS OF COVARIANCE ON ATTITUDE TOWARD GAINFUL EMPLOYMENT SCORES OF EXPERIMENTAL AND CONTROL GROUPS OF DISADVANTAGED STUDENTS

Source of Variation	Degree of Freedom	Sum of Squares	Mean Squares	F
Treatment (Between)	1	-0.1953	-0.1953	
Error (Within)	38	14131.0078	371.8684	
Total	39	14130.8125	-0.1953	-0.001

P .05 > 4.10 (With 1 and 38 degrees of freedom)

Data presented in Table XV contain the computations resulting from testing Hypothesis Number Four, that there would be no significant difference between the pre-test, post-test gain scores of disadvantaged students in the experimental and control groups regarding attitudes toward gainful employment. It will be noted that this comparison resulted in an extremely low F value of only -0.001. For the observed difference to have been significant, an F value of at least 4.10 was required. As a result, the null hypothesis was accepted.

Attitudes Toward Education of Advantaged Students

Covariant mean scores for both treatment and control advantaged students in regard to attitude toward education are shown in Table XVI.

TABLE XVI

COVARIATE MEANS OF ADVANTAGED TREATMENT GROUPS
FOR ATTITUDE TOWARD EDUCATION

	Mean Scores					
Treatment Group	Pre-Test	Intelligence Quotient	Grade Point Average	Post-Test		
Experimental	88.50	103.28	2.90	89.57		
Control	86.50	106.00	2,22	83.00		

As can be seen from this table, the means for pre-test, post-test scores of the experimental group showed slight increases and the means of the pre-test, post-test scores of the control showed a small decline. Further observation shows the means of the grade point average of the experimental being slightly higher than that of the control group while the mean scores on I.Q. for the control group were slightly higher than the I.Q. mean scores for the experimental group. These data served as a basis for testing the fifth hypothesis.

An attempt was made to determine if a significant difference existed between the two treatment groups of advantaged students when their pre-test, post-test scores on attitudes toward education were compared.

Results of the analysis of covariance for these groups on this measure

are portrayed in Table XIII. This analysis disclosed an F value of .632, which led to the acceptance of the hypothesis that there was no significant difference between the groups. Rejection of the null hypothesis would have required an F value of at least 4.67.

TABLE XVII

ANALYSIS OF COVARIANCE ON ATTITUDE TOWARD EDUCATION SCORES OF EXPERIMENTAL AND CONTROL GROUPS OF ADVANTAGED STUDENTS

Source of Variation	Degree of Freedom	Sum of Squares	Mean Squares	F
Treatment (Between)	1	84.6882	84.6882	
Error (Within)	13	1741.2244	133.9403	
Total	14	1825.9126	84.6882	0.632

P .05 > 4.67 (With 1 and 13 degrees of freedom)

Attitudes Toward Gainful Employment of Advantaged Students

Mean scores of the covariates for attitude toward gainful employment for advantaged students are depicted in Table XVIII.

As can be seen from Table XVIII there were slight increases in the mean pre-test, post-test scores of the experimental and control groups with the experimental I.Q. means being lower than the I.Q. means in the control group. The mean for the experimental grade point average was

TABLE XVIII

COVARIATE MEANS OF ADVANTAGED TREATMENT GROUPS FOR ATTITUDE TOWARD PREPARING FOR GAINFUL EMPLOYMENT

Treatment Group	Mean Scores									
	Pre-Test	Intelligence Quotient	Grade Point Average	Post-Test						
Experimental	179.85	103.28	2.90	180.85						
Control	176.25	106.00	2.22	176.50						

slightly higher than that of the control group. This information served as input for testing the sixth hypothesis.

TABLE XIX

ANALYSIS OF COVARIANCE ON ATTITUDE TOWARD GAINFUL EMPLOYMENT SCORES OF EXPERIMENTAL AND CONTROL GROUPS OF ADVANTAGED STUDENTS

Source of Variation	Degree of Freedom	Sum of Squares	Mean Squares	F
Treatment (Between)	1	3.6860	3.6860	
Error (Within)	13	2159.6824	166.1294	
Total	14	2163.3684	3.6860	0.022

P .05 \geq 4.67 (With 1 and 13 degrees of freedom)

A null hypothesis stating that there would be no significant differences between the pre-test, post-test gain scores on attitudes toward gainful employment of advantaged students in the experimental and control groups was accepted on the basis of the results of the analysis of covariance. From findings shown in Table XIX, it can be determined that the computed F value for this analysis was found to be .022. The .05 level of probability required an F value of 4.67 or above for rejection of the hypothesis in its null form.

Estimates of Degree of Improvement

Cooperating Teachers

At the beginning of the research program, schools were selected where there were two teachers in each of the vocational agriculture departments. This gave a total of six cooperating teachers involved in the study. The number of cooperating teachers assisting with the program changed, however, and a detailed outline of this decrease in number of cooperating teachers involved with the study is shown in Table XX.

TABLE XX
COOPERATING TEACHERS INVOLVED IN STUDY

Centers	Number Teachers During Fall Semester 69—70	Number Teachers During Spring Semester 69-70	Number Teachers Working with Study at Close of Program
School A	2	2	2
School B	2	1	1
School C	2	1	1

There was no change in cooperating teachers at School A during the school year 1969-70. However, both School B and School C each had one of the vocational agriculture instructors to leave the respective school system at the close of the fall semester. The vacancy in vocational agriculture position was filled beginning with the spring semester. This left only one teacher in each of these schools who was familiar with the research program and it was felt that it would be best if the new teacher in each of these schools did not become involved with the study. This explains the difference in number of teachers involved at the beginning and closing of the study.

During the final week of the teaching phase of the research program, the cooperating teachers were asked to fill out an evaluation form (Appendix P) that had been developed by the researcher. A total of four respondents completed this form at this time. Their responses are tabulated in Table XXI.

Data in Table XXI reveal that a majority (three-fourths) of the cooperating teachers observed a great deal of improvement in the self-confidence of students receiving the special program. One teacher indicated only a slight improvement in his students' self-confidence. The patterns of teacher ratings of student participation in class and attitudes toward school were identical. Two teachers indicated they observed great improvement, one indicated a slight improvement and one indicated no change in each of these two categories. Overall interest in class was the only response indicating anything below no change. One teacher felt that his students' overall interests in class had declined slightly. However, there were two teachers who rated students' overall interest in class as showing a great improvement, while one indicated

only slight improvement. The ratings on school attendance were equally divided between slight improvement and no change. Of the four cooperating teachers, three felt students' attitudes toward the world of work had shown great improvement, and one rated his students as slightly improved in this respect.

In order to arrive at a "best" estimate of the degree to which teachers felt the students had improved regarding each of the selected variables, a numerical cumulative rating was computed. This was accomplished by assigning values to the various responses according to a scale where:

By summing the respective values assigned to ratings and dividing by the number of respondents, an average rating for each variable was determined. A scale for rating was: Great-5; Slight-4; No Change-3; Slight Decline-2; and Great Decline-1. Inspection of the data in Table XXI shows that self-confidence received a cumulative rating of 19 and an average rating of 4.75. The total rating of the four cooperating teachers on participation in class was 17 with an average cumulative rating of 4.25. A rating of 4.00 was the average response to overall interest in class. Attitude toward school was rated the same as participation in class by the teachers, receiving a 4.25 average cumulative rating. For each of the aforementioned factors, teachers, on the average, indicated that students had shown slight to almost great degrees of improvement.

The average teacher rating of 3.5 on school attendance reflects the opinion of the teachers that there was relatively little improvement in the attendance records of the disadvantaged students.

It was of great interest to the researcher to find that a majority

of the cooperating teachers' responses reflected their judgments of a great improvement in the attitudes of the students toward the world of work. This variable had a cumulative rating of 19 and a 4.75 average rating. An overall look at Table XXI reveals that the two variables, self-confidence and attitude toward the world of work, each received an average rating of 4.75; participation in class and attitude toward school each received 4.25 average cumulative ratings; overall interest in class received an average rating of 4.00; and school attendance received the lowest average rating, a 3.50.

Student Teachers

Two student teachers from the Department of Agricultural Education at Oklahoma State University were assigned to each of the three research centers during both the fall and spring semesters of the school year 1969-70. During the student teaching period each semester, these young men were in charge of the instruction for the research program - both for the experimental group and the control group. At the end of the semester, the respective student teachers were given a copy of the same evaluation form the cooperating teachers completed.

Responses to these evaluation forms by the twelve student teachers are tabulated in Table XXII.

As compared to Table XXI, three of the cooperating teachers indicated a great improvement in students' self-confidence. However, data in Table XXII indicate that only two of the student teachers indicated great improvement. The greatest number of student teachers, 10 out of 12, checked slight improvement on students' self-confidence. Nine of the 12 student teachers checked the students showed great improvement

TABLE XXI

COOPERATING TEACHER ESTIMATES OF RELATIVE DEGREES OF IMPROVEMENT OBSERVED
IN STUDENTS RECEIVING SPECIAL PROGRAM

		Degree of Improvement										Total	
Student Variables	Great		Slight		No Change		Slight Decline		Great Decline		Number Teachers	Cum.	Average Cum.
	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	Rating	Rating	Rating
Self-Confidence	3	15	1	4	0	0	0	0	0	0	4	19	4.75
Participation in Class	2	10	1	4	1	3	0	0	0	0	4	17	4.25
Overall Interest in Class	2	10	1	4	0	0	1	2	0	0	4	16	4.00
Attitude Toward School	2	10	1	4	1	3	0	0	0	0	4	17	4.25
School Attendance	0	0	2	8	2	6	0	0	0	0	4	14	3.50
Attitude Toward the World of Work	3	15	1	4	0	0	0	0	0 (0	4	19	4.75

in class participation. Two student teachers indicated slight improvement and one indicated no change on participation in class. Overall, the student teachers felt there was eighter a great or slight improvement in the students' overall interest in class, with eight of the 12 indicating great improvement. Nine student teachers felt there was a slight improvement in students' attitudes toward school, but only two of four cooperating teachers felt there was a great improvement in this area.

Evaluation forms completed by student teachers were analyzed using the same numerical scale and procedures as those applied to cooperating teacher ratings. The variables self-confidence and attitudes toward the world of work each received 50 total cumulative points and an average rating of 4.17 by the student teachers. Again, this would indicate a slight to great improvement in the self-confidence and the attitudes toward the world of work of the disadvantaged students in the study. For the variables, participation in class and overall interest in class, an average cumulative rating of 4.67 was assigned by the student teacher group. The two variables, attitude toward school and school attendance, on the average, were rated 3.92 by student teachers.

An overall evaluation of the data presented in Table XXII would indicate that student teacher respondents felt the disadvantaged students had gained in self-confidence and in their attitudes toward the world of work. Their overall ratings on participation in class and interest in class indicate a noticable improvement in these two areas. Attitudes toward school and school attendance of students exhibited the lowest degrees of improvement according to the estimates of student teachers.

STUDENT TEACHER ESTIMATED OF RELATIVE DEGREES OF IMPROVEMENT OBSERVED IN STUDENTS RECEIVING SPECIAL PROGRAM

Student Variables	Degree of Improvement											Total	
	Great		Slight		No Change		Slight Decline		Great Decline		Number Teachers	Cum.	Average Cum.
	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	Rating	Rating	Rating
Self-Confidence	2	10	10	40	0	0	0	0	0	0	12	50	4.17
Participation in Class	∍ 9	45	2	8	1	3	0	0	0	0	12	56	4.67
Overall Interest in Class	8	40	4	16	0	0	0	0	0	0	12	56	4.67
Attitude Toward School	1	5	9	36	2	6	0	0	0	0	12	47	3.92
School Attendance	4	20	3	12	5	15	. 0	0	0	0	12	47	3.92
Attitude Toward the World of Work	3	15	8	32	1	3	0	0	0	0	12	50	4.17

Table XXIII was formulated to present data indicating combined estimates for both groups of teachers as to the relative degrees of improvement observed among students receiving the specialized instructional program during the course of the experiment. For the two groups combined, the greatest degree of improvement was observed in students' participation in class with an average rating of 4.56, followed in order by: overall interest in class, with an average rating of 4.50; self-confidence and attitudes toward the world of work, each with a 4.31 average rating; attitudes toward school with an average rating of 4.00; and school attendance with a 3.81 average rating.

Observing data presented in Table XXIII, a combination of estimates of cooperating and student teachers with regard to relative degrees of improvement observed in students taught through use of the special programs, it would appear that the teachers felt students had generally improved with regard to all the variables under study during the conduct of the program, especially these concerned with communication behavior. Therefore, the null hypothesis that there would be no observable difference in students' communication abilities over the duration of the study was rejected.

The Researcher's Observations During
Supervision of the Program

The researcher planned, supervised and directed the activities involved in the research effort through visitations to the centers and consultation with the cooperating teachers and the student teachers.

Each visit to a center ended with the conductor of the study holding a conference with the student teachers and/or cooperating teachers. This

TABLE XXIII

COMBINED ESTIMATES OF COOPERATING AND STUDENT TEACHERS OF RELATIVE DEGREES
OF IMPROVEMENT OBSERVED IN STUDENTS RECEIVING SPECIAL PROGRAM

		Degree of Improvement											
	Great		Slight		No Change		Slight Decline		Great Decline		Number Teachers	cum.	Average Cum.
	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	No. Rating	Cum. Rating	Rating	ng Rating	Rating
Self-Confidence	5	25	11	44	0	0	0	0	. 0	0	16	69	4.31
Participation in Cla	ıss 11	55	3	12	2	6	0	0	0	0	16	73	4.56
Overall Interest in Class	10	50	5	20	0	0	1	2	0	0	16	72	4.50
Attitude Toward School	3	15	10	40	3	9	0	0	0	0	16	64	4.00
School Attendance	4	20	5	20	7	21	0	0	0	0	16	61	3.81
Attitude Toward the World of Work	6	30	9	36	. 1	3	0	0	0	0	16	69	4.31

was felt necessary in order to provide continuing appraisal and evaluation of lesson materials, reaction of students in class, and other items and situations pertinent to the investigation. During these informal conversations, the researcher became thoroughly convinced that, on the whole, both student teachers and cooperating teachers felt the special program was beneficial and helpful to the students. There was a general agreement that possibly a student classified as disadvantaged would more readily accept education if it was presented in a manner similar to that used during the research program. An indirect approach to mathematics or theme writing and English could very well accomplish the desired results when the direct, traditional way had not fully met the total needs of the student.

During the duration of the program the research centers were visited at least once each month with the exception of January. A breakdown of the visits according to schools was: School A, 10 visits with one entire day spent at each visit; School B, 10 visits spending one entire day at each visit; and School C, 7 visits spending one entire day at each visit. In addition to personal visits, contact by telephone was made numerous times with each center. The first visit to the centers was in October, 1969, and the last visit made to the centers was in June, 1970.

To illustrate the opinions of students toward the program, the following experience encountered by the researcher during a visit with one of the students classified as disadvantaged is offered. Upon arriving at the center, prior to the time for school to begin, the researcher recognized some of the students who were in the special instructional program class. It was a pleasant surprise when one student stopped him

and wanted to visit. The conversation went much in this manner:

Student: "Hey, you know what! I've got a job for this summer with one of the feed companies down town."

Researcher: "That's great."

Student: "You know that stuff (the lessons on securing employment) we've been studying in agriculture sure did help me when I went down to talk about my job."

There was more to the conversation and the researcher assured the student that things related to school and learned in school could always benefit and help if one permitted them so. There were other incidents of informal conversation with students which led the researcher to believe that the above-mentioned opinion was fairly wide-spread among students participating in the program.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

An introduction of the problem and its setting, a review of literature covered prior to and during the process of the research, the design and conduct of the study, and the tabulated results of the findings have all been previously outlined. This concluding chapter, then, is mainly a concise review of the study including the major findings and recommendations of the researcher.

Summary

Purpose of the Study

The central purpose of the study was to determine the effects of a specially designed instructional program in vocational agriculture upon students enrolled in Vocational Agriculture I who were adjudged as students with special needs.

Specific Objectives of the Study

The following specific objectives were formulated to accomplish the purpose of the study:

- To establish advantaged and disadvantaged categories of students enrolled in vocational agriculture in three high schools and identify students comprising each category.
- 2. To determine if significant differences existed between and

within disadvantaged vocational agriculture students and advantaged vocational agriculture students with regard to: (a) attitude toward further education endeavors; and (b) attitude toward gainful employment, as a result of a specifically planned and administered instructional program. Also, observed differences in communication ability and school attendance will be determined between these two groups.

Need for the Study

Providing maximum opportunity for students with special needs is a concern of most people interested in education. Congress gave evidence of its support of this concern when enacting the Vocational Education Amendments of 1968 thereby expressing that special needs students were among the top priority programs that require consideration. Additional support was also given by Congress when laws were passed providing funds earmarked specifically for education and research in this area.

The researcher has had personal experience and contact with students who could have been termed as students with special needs. As a result, he has concluded and realized that often times they drop out of school never having had the basic "things" needed in order to get along and fit into society. Consequently, it was felt that by developing a special instructional program, which could be taught through vocational agriculture where there is usually more interest, that perhaps these students could be motivated and interested in furthering their education and preparing for gainful employment. Specifically, basics such as communication abilities, verbally expressing oneself, ability to clearly write and express oneself on paper, conducting business in a

business-like manner, seeking employment, and being able to relate in a more favorable manner in everyday conversation are the abilities the researcher felt needed to be taught to the students with special needs.

It was determined that sufficient population could be furnished to afford the researcher the needed data for a study of this nature, therefore a need for the research was established and the study begun.

Methodology

The study was conducted among students from three selected high schools in Southeastern Oklahoma. Prearranged, intact classes were randomly assigned as to experimental and control groups. The student population consisted of whites, Negroes, and American Indians. Each school in the study had at least two of the three above-mentioned races.

Advantaged and disadvantaged students were found in both the experimental and control groups in each of the three schools. Each school participating in the study had two vocational agriculture teachers and two sections of Vocational Agriculture I making it possible to establish an experimental and control group in each school.

In order for a student to be classified as a student with special needs, a necessary criterion was that he possess one of the following characteristics:

- 1. Income of parents \$3,000.00 or below annually.
- Previous academic achievement placed him in the lower quartile of entire class.
- 3. Intelligence Quotient score falling one standard deviation below the mean for the test given.

Seventy-two Vocational Agriculture I students were chosen from the

three schools at the beginning of the study. The final total population represented 61 students due to a loss of 11 students for various reasons during the 27 weeks of administering the special instructional program to the experimental group.

Student teachers from the Department of Agricultural Education at Oklahoma State University taught the special instructional program as well as the traditional program during the nine weeks of student teaching during both fall and spring semesters with the local cooperating teachers teaching the experimental and control groups during the absence of the student teachers.

The special instructional units taught to the experimental groups were developed by the investigator and constructed to fit into the local programs of vocational agriculture. Emphasis was placed upon the terminal objective of enabling each student to realize the importance of education and preparing himself for gainful employment.

A pre-test was given to all students (experimental and control) prior to administering the special instructional program. The pre-test attempted to measure the students' attitudes toward education and pre-paring for gainful employment. A post-test using the same test was given at the end of the research to determine if the independent variable had affected the experimental group's attitude toward education and preparing for gainful employment.

All statistical findings were obtained by use of the "BMDO4V Analysis of Covariance, Multiple Covariates" computer program made available through and administered by the Computer Center at Oklahoma State University. Other information was obtained by the use of a questionnaire developed by the investigator and given to each of the

cooperating teachers and student teachers participating in the research program.

Summary of Findings

Eight hypotheses were formulated for the study. Each hypothesis was developed to test the significance of a specific phase of the research program. Based upon the analysis of the pre-test, post-test scores the following was observed:

- 1. A pre-test and post-test designed to measure attitudes toward education was given to both the experimental and control groups. This was intended to provide a basis for testing a general hypothesis that there would be no significant difference in the attitude of students in the special instructional program and the students in the traditional vocational programs. The obtained F value for this test was 0.016 which was less than the table value for the predetermined level of probability. Thus, there was no statistical significance of difference in the attitude toward education between the experimental and control groups.
- 2. A pre-test and post-test was given to measure attitudes of students toward preparing for gainful employment in both the experimental and control groups. Hypothesis Number Two stated that there would be no significant difference in the attitude toward gainful employment of students in the special instructional program and students in the traditional vocational agriculture program. The analysis resulted in an F value of 0.058 which was less than table value for the

- predetermined level of probability. Therefore, there was no statistically significant difference in the attitudes toward preparing for gainful employment between the experimental and control groups.
- 3. Hypothesis Number Three stated that there was no significant difference between the disadvantaged students enrolled in the special instructional program as to disadvantaged students enrolled in the traditional Vocational Agriculture I program as to their attitude toward education by means of a pre-test, post-test gain score. Statistical analysis provided a calculated F value of 0.025 which was below the predetermined level of probability. Therefore, it was necessary to accept the hypothesis as stated because of no statistically significant difference in the attitude toward education between the disadvantaged students in the special instructional program and the disadvantaged students in the traditional Vocational Agriculture I program.
- 4. Attitudes toward preparing for gainful employment between disadvantaged students enrolled in the special instructional program as compared to disadvantaged students enrolled in the traditional Vocational Agriculture I program were the objective of Hypothesis Number Four. A calculated F value of 0.001 was obtained. This F value as compared to the predetermined level of probability was insufficient. As a result null Hypothesis Number Four was accepted.
- 5. Null Hypothesis Number Five was formulated to measure the attitude toward education between advantaged Vocational

Agriculture I students enrolled in the special instructional program as compared to advantaged students enrolled in the traditional Vocational Agriculture I program as measured by the pre-test, post-test scores. An F value of .632 led to the acceptance of the hypothesis that there was no significance difference between the groups. Therefore, the null hypothesis was accepted.

- 6. The attitude toward gainful employment between advantaged Vocational Agriculture I students enrolled in the special instructional program as compared to the advantaged students enrolled in the Vocational Agriculture I traditional program was determined by a pre-test, post-test score to fulfill the objectives of Hypothesis Number Six. A calculated F value of .022 was found to be insufficient in order to reject the null hypothesis. Therefore, null Hypothesis Number Six was accepted.
- 7. Hypothesis Number Seven stated that there would be no measurable difference in the persistence and attendance of students enrolled in the special instructional program as compared with students enrolled in the traditional agriculture program. Based upon the results of the questionnaire completed by the cooperating teachers and student teachers, this null hypothesis was also accepted.
- 8. Even though not statistically tested, Hypothesis Number
 Eight was rejected due to the responses to the questionnaire
 completed by the cooperating teachers and student teachers.

 It was unanimously felt that there was an improvement in the

communication abilities of students enrolled in the special instructional program as compared with students enrolled in the traditional Vocational Agriculture I program. Therefore, null Hypothesis Number Eight was rejected.

Conclusion

Based upon the statistical analysis selected for testing the null hypothesis stated previously in this study, it was concluded that there was no significant difference within or between the students enrolled in the special instructional program as compared with students enrolled in the traditional program in regard to their attitudes toward education and preparing for gainful employment.

However, based upon combined estimates of cooperating teachers and student teachers the researcher concluded that the special instructional program did increasingly motivate students enrolled in the special instructional program. Self-confidence, participation in class, overall interest in class, attitude toward school, school attendance, and attitude toward the world of work received a favorable rating of improvement according to the cooperating teachers and student teachers.

The researcher further felt that this approach to teaching was more relevant to the students needs, thus providing and exposing each individual in the experimental groups to basic competencies needed for a productive life in our present society. Students in the special instructional program also displayed more interest in this type of instruction as compared to the traditional program.

Recommendations

The conductor would like to submit the following recommendations in order that they may more clearly define his interest in students with special needs and possibly furnish information to some other researcher and assist in further research involving the disadvantaged students.

There is ample room for further research involving the student with special needs and the conductor of this research effort would encourage and recommend researchers interested in this area of education to engage themselves in some related aspects of research involving the rural disadvantaged. The investigator would encourage and recommend further development of the instructional materials used in this study for future studies. Revision of the instruments and further efforts to support their validity would be most beneficial to research of this nature. Possible areas needing further study would include revised curriculum, teaching skills for employment, and exploratory programs to provide the student with the opportunity to discover possible areas of interest and future employment.

Realizing there is a need for better ways of presentation of instructional materials, studies involving different teaching methods and experimenting with the effects of each method upon the student would seem appropriate for further consideration, thereby providing an educational program that would, perhaps, be more relevant to students' needs and would thereby more nearly fulfill the students' achievement in growth and maturity preparing them to be assets to society rather than liabilities to the taxpayer.

A SELECTED BIBLIOGRAPHY

- 1. Grate, Nelson C. "Relevance Through Vocational Education," The Agricultural Education Magazine, Volume 42, December, 1967, p. 137.
- 2. Campbell, John D. "Studies in Attitude Formation: The Development of Health Orientations," Attitude Ego Involvement and Change, edited by Carolyn W. Sherif and Muzofer Sherif;
 John Wiley and Son, Inc., New York, New York, 1967, pp. 7-24.
- 3. Rokeach, Milton. <u>Beliefs</u>, <u>Attitudes and Values</u>, Jossey-Boss, Inc., Publishers, San Francisco, 1968, pp. x, 1, 112-114.
- 4. Caldwell, O. W. <u>Science</u> <u>Truth</u> or <u>Propoganda</u>, School Science and Math, 1933, pp. 26-33.
- 5. Thurston, Louis L. <u>The Measurement of Values</u>, Chicago: Chicago University Press, 1959.
- 6. Hutt, Max L., Robert L. Isacson and Milton L. Bluns. <u>Psychology</u>:

 <u>The Science of Interpersonal Behavior</u>, New York and London:
 Harper and Row, 1966.
- 7. Newcomb, Turner, and Converse. <u>Social Psychology</u>, Holt, Rienhart and Winston, Inc., New York, 1966, p. 41.
- 8. Woeller, Robert C. "Developing Vocational Attitudes," from the Proceedings of the Mid-West Conference of Chicago Association of Child Study and Parent Education, <u>Developing Attitudes in Children</u>, March 1932, University of Chicago Press, Chicago, Illinois, p. 107.
- 9. Lichenstine, Arthur. The John Hopkins University Studies in Education: Can Attitudes Be Taught? Edited by Florence Bamberger, The John Hopkins Press, Baltimore, 1934, p. 1.
- 10. Whitney, E. P. "A Program for Students with Special Needs," The Journal of Business Education, Editorial, October, 1967, pp. 6-7.
- 11. Vocational Education for the Disadvantaged: Summary of a National Workshop. Presented at the National Workshop on Vocational Education for the Disadvantaged, Atlantic City, New Jersey, March 12, 13 and 14, 1969. Sponsored by National Committee on Employment of Youth, 145 East 32nd Street, New York, N.Y., 10016, pp. 2-3.

- 12. Kemp, Barbara H. The Youth We Haven't Served. The U.S. Department of Health, Education and Welfare, 1966.
- 13. Riessman, Frank. <u>The Culturally Deprived Child</u>. Harper and Row Publishers, New York, N. Y., 1962, pp. 2-15.
- 14. Michael, Carbine L. "Communicating with the Disadvantaged,"

 <u>Manpower</u>, Volume 1, No. 9, October 1969, pp. 3-6.
- 15. Gordon, Edmund W. "Counseling Youth Who are Handicapped by Social Status Differences." Prepared for the Symposium on Guidance and School Dropouts, May 5-7, 1963, Washington, D. C., p. 193.
- 16. Brewer, Bill. "You Are a Failure," The Oklahoma Teacher, February, 1967, p. 13.
- 17. Warmbrod, Robert J. "Onlookers are Active Participants," <u>The Agricultural Education Magazine</u>, No. 3, Volume 41, September, 1968, pp. 55-56.
- 18. Arnspiger, Robert H. "All He is Capable of Becoming," <u>School and Community</u>, November, 1968, p. 19.
- 19. Gowan, John Curtis and Demos, George D. "The Disadvantaged and Potential Dropout," Charles C. Thomas Publishers, Springfield, Illinois, 1966, p. 123.
- 20. Sando, Rudolph F. A Comperative Study of Early School Learners.

 (An unpublished doctoral dissertation) University of California, Berkley, 1952.
- 21. Popham, James W. <u>Educational Statistics Use and Interpretation</u>.

 Harper and Row, Publishers, New York, 1967, pp. 221-223, 339-402.
- 22. Campbell, Donald T. and Julian C. Stanley. Experimental and Quasi-Experimental Design for Research. Rand McNally and Company, Chicago, 1963, pp. 47-48.
- 23. Downie, N. M. and R. W. Heath. <u>Basic Statistical Methods</u>. Harper and Row, Publishers, New York, 1965, p. 186.
- 24. Shaw, Marvin E. and Jack M. Wright. Scales for the Measurements of Attitudes, McGraw-Hill, 1967, pp. 233-234.
- 25. Anastasi, Anne. <u>Psychological Testing</u>. The MacMillan Company, New York, 1968, pp. 82-83.
- 26. Sullivan, Elizabeth T., Willis W. Clark, and Ernest W. Tiegs.

 <u>California Short-Form Test of Mental Maturity</u>, published by California Test Bureau, 1961, pp. 2-10.

APPENDIX A

UNIT ONE

PROBLEM AREA: Cutting Metal with Oxygen and Acetylene Gas

MAJOR OBJECTIVES:

- 1. Students will be able to identify and list in writing all parts of the oxygen and acetylene cutting torch.
- 2. Students will be able to list in writing the characteristics of oxygen.
- 3. Students will be able to list in writing the characteristics of acetylene.
- 4. Students will be able to list in writing all safety rules in using the oxygen and acetylene cutting torch.
- 5. Students will be able to properly turn on and turn off the oxygen and acetylene torch.
- 6. Students will be able to properly cut out their name in a piece of 1/4 inch mild steel metal 3 inches wide by 12 inches long.

(TEACHERS - Stress safety at all times.)

INTEREST APPROACH: How many people do you know who can cut metal with the oxygen and acetylene cutting torch? Do you think they know how to use the torch properly? There are many things that one needs to know in order to use oxygen and acetylene safely and properly. There are some good job opportunities available for people interested in this type of work.

STUDY QUESTIONS:

- 1. What are the parts of the cutting torch and the function of each part?
- 2. What color is the hose that carries the oxygen from the oxygen bottle to the cutting torch?
- 3. What color is the hose that carries the acetylene from the acetylene bottle to the cutting torch?
- 4. What kind of threads is on the connection that fits on the oxygen cylinder?
- 5. What kind of threads is on the connection that fits on the acetylene cylinder?
- 6. What are the characteristics of acetylene gas?
- 7. What are the characteristics of oxygen gas?
- 8. How do you light the cutting torch, adjust to a cutting flame, and shut off the torch?
- 9. How do you cut a hole in a piece of metal?
- 10. In what direction do you move the cutting torch when cutting?
- 11. How far from the metal do you hold your cutting tip?
- 12. What is a cutting tip?
- 13. Is the oxygen gas heavier than air?
- 14. What are some safety features to always remember?

SUMMARY OF INFORMATION:

1. Parts of the cutting torch and the function of each part:

(TEACHERS - Use the transparencies)

2. Color of the hose that carries the oxygen from the oxygen bottle to the torch.

GREEN

- 3. Color of the hose that carries the acetylene from the acetylene bottle to the torch?
 - RED Indicating danger; acetylene is the gas that burns.
- 4. Kind of threads that connects the gas valve regulators on the oxygen cylinders.
 - a. Right hand threads on connections.
 - b. Solid connecting nut.
- 5. What kind of threads are on the connection that fits on the acetylene cylinder?
 - a. Left handed threads.
 - b. Split connector.
- 6. Characteristics of acetylene gas:
 - a. Colorless.
 - b. Combustible gas.
 - c. Characteristic order.
 - d. Forms explosive mixture with air and oxygen.
 - e. Never use over 15 pounds of P.S.I. in hose,
 - f. Made from calcium carbide and water.
- 7. Characteristics of oxygen gas:
 - a. Colorless.
 - b. Tasteless.
 - c. Odorless.
 - d. Supports and intensifies combustion.
 - e. Under pressure, combines violently with oil and/or gasses at ordinary temperatures.
 - (1) Never oil regulators or connections.
 - (2) Never handle with oily or greasy hands.
 - (3) Never wear oily or greasy gloves when working with or handling.
- 8. Lighting the cutting torch adjusting the cutting torch shutting the torch off.

- a. Check the torch valves to make sure they are all closed and that the pressure regulators on the pressure gages are loose (out).
- b. Open the acetylene bottle valve about one and one-half $(1\frac{1}{2})$ turns.
- c. Open the oxygen valve all the way (it has a double seating valve.)
- d. Then screw in the regulator valve on the acetylene and adjust to five (5) to eight (8) pounds of live pressure. (Caution you never go over ten (10) and fifteen (15) is the extreme maximum.)
- e. Screw in the regulator valve on the oxygen until you have approximately 15 20 pounds of live pressure.
- f. Bleed your lines making sure you do not have a mixture of gas in the chambers of the cutting torch.
- g. Open the acetylene valve 1/4 to 1/2 turn and light the torch.
- h. Adjust the amount of acetylene you want.
- i. Open up the torch valve on the oxygen and bring to a neutral flame (until it burns clean with no smoke or soot).
- j. Press the (blow bar) oxygen bar to and make sure the flame will not jump out on the end of the cutting tip.

TURNING OFF THE OXYGEN-ACETYLENE EQUIPMENT

- a. Shut off acetylene needle valve.
- b. Shut off oxygen needle valve.
- c. Shut off acetylene cylinder valve.
- d. Shut off oxygen cylinder valve.
- e. Open acetylene needle valve and drain line until both gagues on acetylene read zero.
- f. Open acetylene regulator adjusting screw.
- g. Close acetylene needle valve.
- h. Complete same procedure on oxygen.
- 9. Cutting a hole in a piece of metal.
 - a. Heat the spot where you want the hole until the metal is red hot, but not in a molted stage. Holding the tip of the torch about 3/16 of an inch from the metal, press on the (blow bar) oxygen leaver, then raise the torch slightly straight up at the same time and you will make a nice hole.
- 10. Direction to move the cutting torch when cutting.
 - a. Right handed person moves from right to left cutting into the metal.
 - b. Left handed person moves from the left to the right cutting into the metal.
- 11. Length of cutting tip from metal.
 - a. About 3/16 inch or hold the tip where the tips of the flame will be touching the metal.

12. What is a cutting tip?

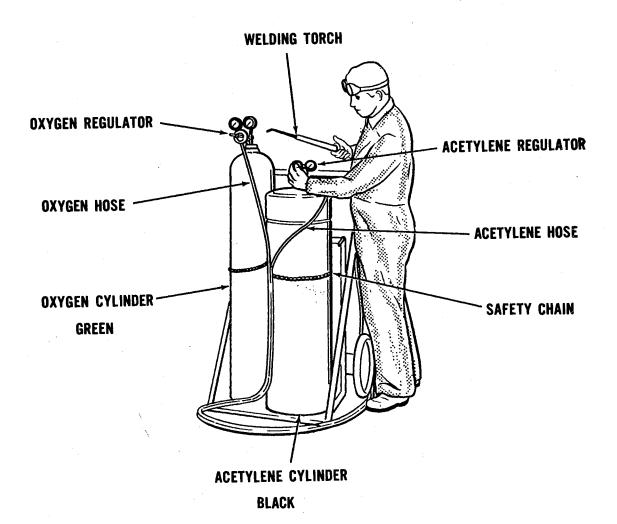
Tip that will carry a mixture of oxygen and acetylene and it also has a center opening to carry a large amount of oxygen to remove the molted metal.

- 13. Is oxygen gas heavier than air?
 - a. Yes.
 - b. It will form pockets of gas in a shop.
- 14. Ways to check for leaks in hoses and connections:
 - a. Make a solution of soapy water.
 - b. Use a soap that is low in fat content (Ivory).
 - c. Put the suds on the hose to check for leaks.
- 15. What are some safety features to always remember?
 - a. Never cut where flame is near cylinder.
 - b. Never drop or upset cylinder.
 - c. Store cylinders in dry, cool place.
 - d. Never cut where flame can burn hose.
 - e. Always use wrench on all connections.
 - f. Always light torch away from person.
 - g. In case of accident, always turn off the acetylene first, then the oxygen.
 - h. Never touch tip to metal (cause back-flash).
 - i. Never hold cutting torch too close to metal.
 - j. Oil or grease should never be used on cylinders.
 - k. Leaky or damaged torch should never be used.
 - 1. If cylinder valve leaks, remove the cylinder from the shop and notify the dealer or shipper at once.
 - m. The torch should never be lighted with both torch valves open.
 - n. Always wear protective glasses and clothing.

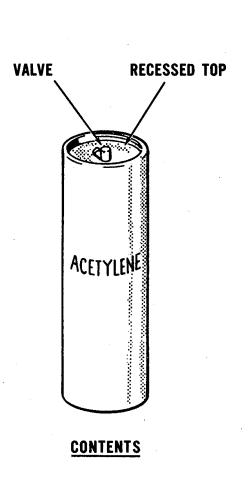
CUTTING EXERCISE: (TEACHERS - Stress safety at all times.)

- 1. Teachers have each student light the torch and shut if off enough times until you are sure he can do it properly.
- 2. After each student has mastered lighting and shutting off the torch, each student should begin cutting scrap metal.
- 3. When each student (and the teacher) knows that they are ready to do the exercise, student can prepare his metal.
- 4. Students are to <u>write</u> their name (full name) on the 3 x 12 piece of $\frac{1}{4}$ inch metal that has been prepared for this exercise and cut their name out with the cutting torch.

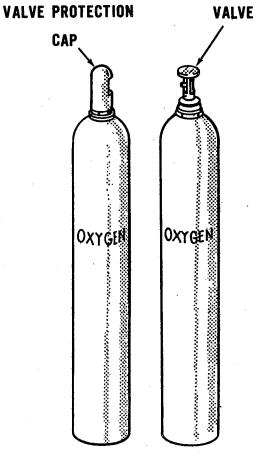
WELDING OUTFIT



WELDING TANKS



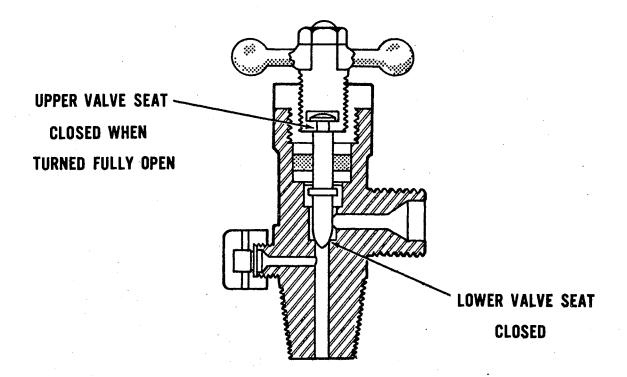
- 1 POROUS COMPOUND
- 2 CARBIDE
- 3 ACETONE



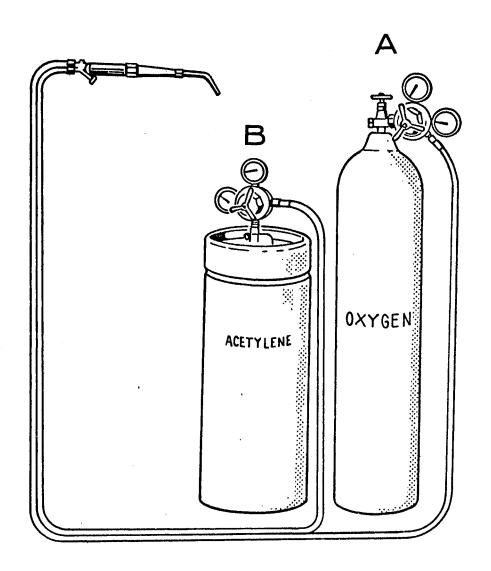
CONTENTS

PURE AIR, COMPRESSED

OXYGEN VALVE



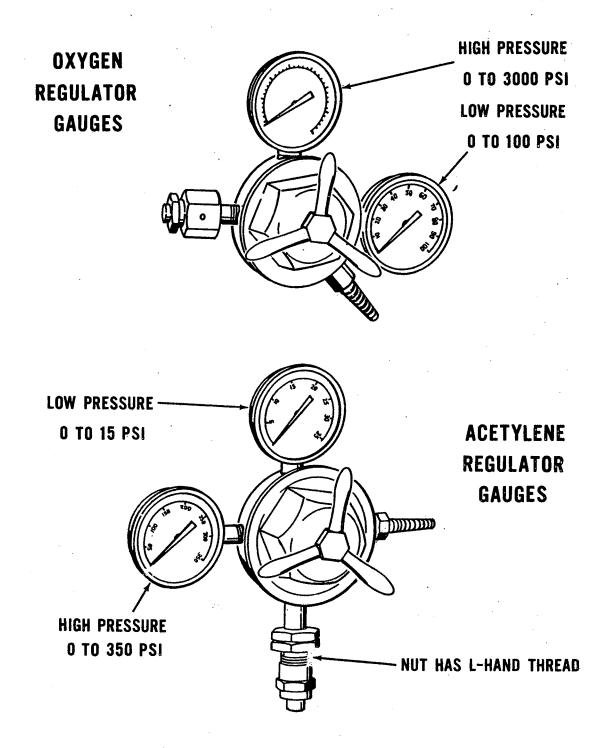
OXY-ACETYLENE CYLINDERS SETUP



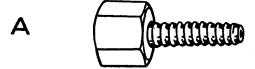
A - OXYGEN TANK

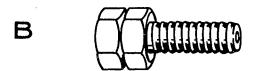
B - ACETYLENE TANK

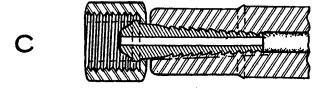
WELDING GAUGES



HOSE CONNECTIONS





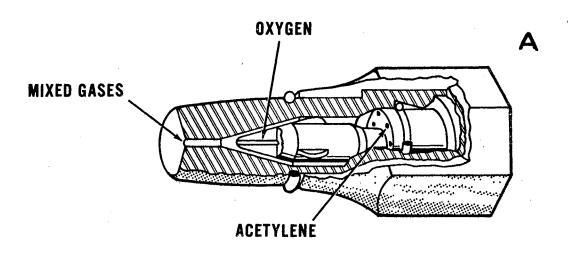


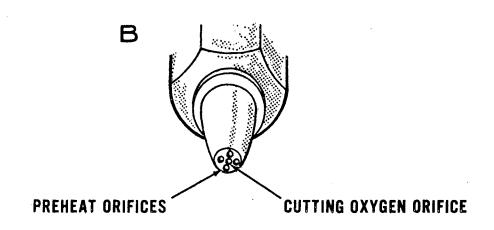
A - OXYGEN

B - ACETYLENE

C - FERRULE-TYPE HOSE

TORCH TIPS

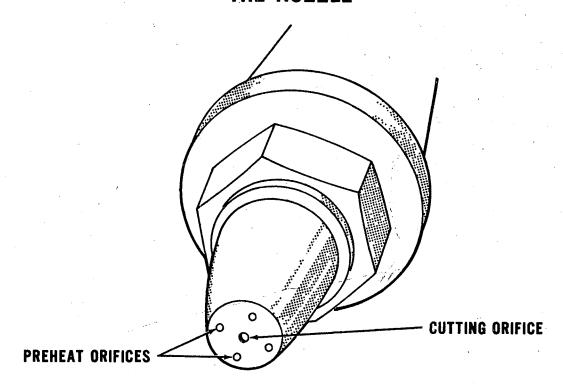




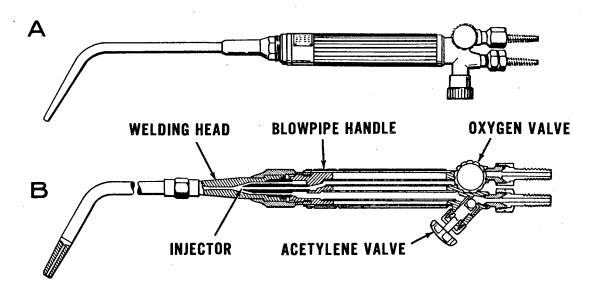
A - WELDING TIP

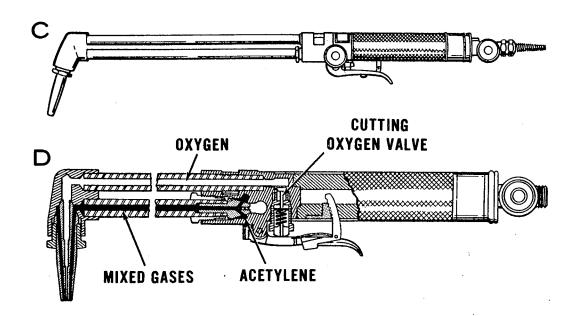
B - CUTTING TIP

OXY-ACETYLENE CUTTING THE NOZZLE



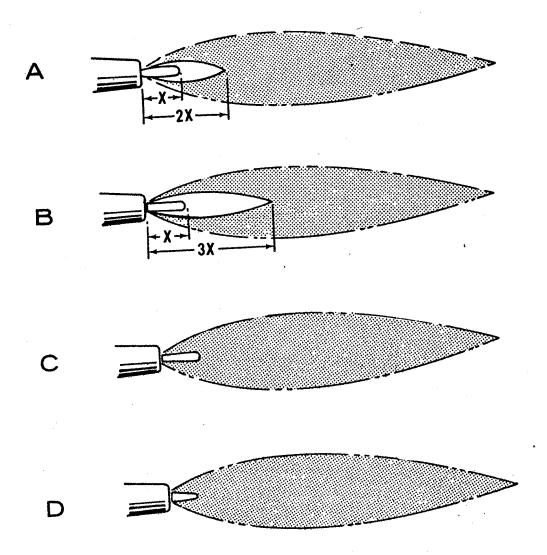
WELDING AND CUTTING TORCHES





- A WELDING TORCH
- **B** WELDING TORCH
- C CUTTING TORCH
 - D CUTTING TORCH

ACETYLENE WELDING FLAMES

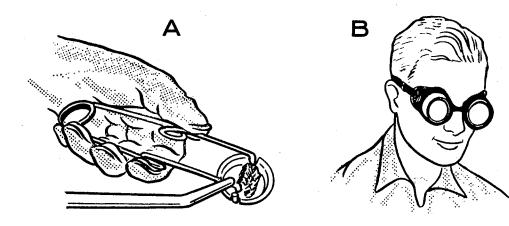


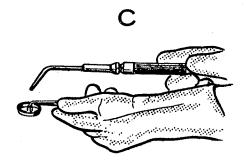
A and B - CARBONIZING

C - NEUTRAL

D - OXIDIZING

LIGHTING THE TORCH



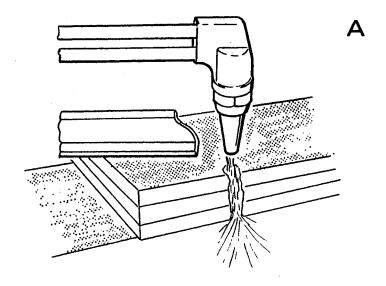


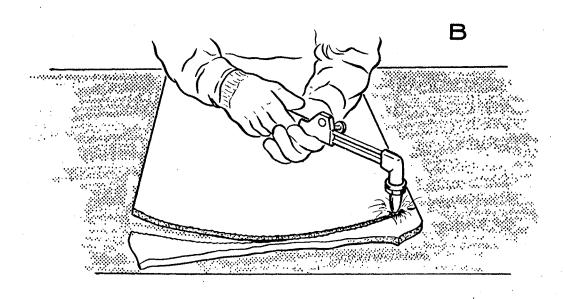
A - TORCH LIGHTER

B - WELDING GOGGLES

C - LIGHTING PROCEDURE

CUTTING TECHNIQUES

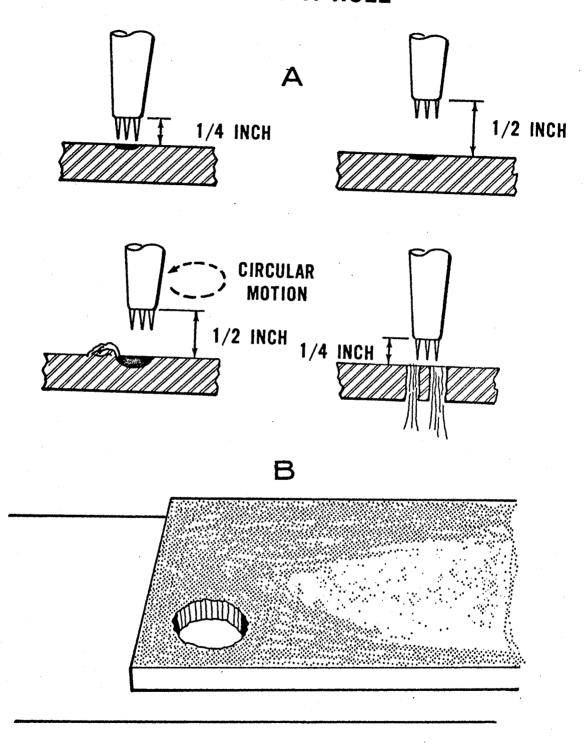




A - STRAIGHT LINE CUT

B - CURVE CUT

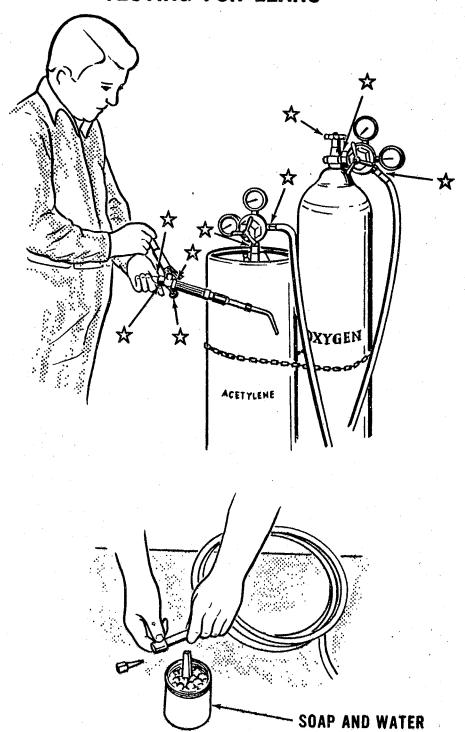
CUTTING A HOLE



A - TORCH POSITIONS

B - FINISHED HOLE

TESTING FOR LEAKS





UNIT TWO

PROBLEM AREA: Grades of Slaughter and Feeder Cattle

(TEACHERS - At any time a short field trip could be arranged, it would be good; if you would have slaughter or feeder cattle available for the students to see, it would help.)

MAJOR OBJECTIVES:

- 1. Student will be able to list in writing the grades of feeder and slaughter cattle.
- 2. Student will be able to list in writing the average yield (percent) of each slaughter grade.
- 3. Students will be able to look at a slaughter animal and determine his grade.

 (TEACHERS We hope we can work with the student until he can get within one grade of the calf's true grade.)
- 4. Students will be able to write a short paragraph discussing each grade of slaughter and feeder explaining the characteristics of an animal in each of the grades.
- 5. Students will be able to calculate the dressing percentage of slaughter cattle.

INTEREST APPROACH:

If you were going to buy a calf to feed out, would it make any difference as to the kind you bought? If you were going to buy a calf to slaughter, would it make any difference as to the kind you bought?

STUDY QUESTIONS:

- 1. What are the grades of slaughter steers?
- 2. What are the average yields (percentage) of dressed weight does each grade of slaughter animal have?
- 3. Once a grade of steers is established and the approximate weight is known, can we calculate his approximate dressing percentage?
- 4. What are the grades of feeder steers?
- 5. What are some of the points which determine the value of feeder steers?

SUMMARY OF INFORMATION:

- 1. What are the grades of slaughter cattle and factors that determine each?
 - a. Prime

e. Commercial f. Utility

b. Choice

g. Cutter

c. Good e. Standard

- h. Canner
- 2. What is the average yield and dressing percent of each grade?

a,	Prime	60	_	67	%
b.	Choice	57	-	63	%
C.	Good	56		60	%
d。	Standard	53	6 000	58	%
e.	Commercial	52	-	60	%
f.	Utility	47	toma	55	X
g.	Cutter	43	-	52	X
h.	Canner	38	_	46	%

3. What would a 942 pound steer (grade good) dress out? What would the carcass weight be?

942 lbs.
$$\frac{x}{60}$$
 % 565.20 lbs.

(TEACHERS - Have the students work several problems such as the example above.)

4. What are the grades of feeder steers? What factors determine each?

a.	Prime	d.	Standard
b.	Choice	e <i>。</i>	Utility
c.	Good	f.	Inferior

- 5. Points which determine the value of feeder steers:
 - a. Age

 Age and Weight: Calves and yearlings require a
 longer feeding period, as a rule, than twoyear-old steers. This is due to the fact that
 young animals grow while they fatten, and hence
 fatten more slowly than older animals. Some
 cattle feeders prefer an older steer for feeding purposes, and this is especially true when
 a "short feed" of from 60 to 90 days is given.
 For the "long feed" of 120 to 180 days or more,
 calves and yearlings are satisfactory if
 carefully selected and properly handled.
 - c. Form: Should be as nearly identical as possible with the description given for the fat steer. Allowances must, of course, be made for the absence of fat in the thin animal, for we cannot expect a thin steer to appear extremely blocky and low set. Yet, even in thin condition, the steer should be low set, deep broad, compact, and balanced; such conformation incures feeding capacity and early maturity. High grade feeders have a straight top line and a straight underline, the two being nearly parallel.

- d. Quality Quality and good breeding are usually found in company and good breeding surely "tells" in the feedlot. Quality also insures smoothness and a higher dressing percentage, points of much importance in the eyes of the buyer of fat cattle. Goarse, staggy heads and necks indicate late castration. Stags will sell at a discount on the fat steer market.
- e. Constitution
- f. Thrift Constitution and Thrift: A wide, deep chest, full heartgirth, and deep, broad body are evidence of a strong constitution. Avoid that steer which has quality carried to the point of delicacy, as only vigorous, rugged cattle make big gains on feed. When choosing between two steers, one of which is too refined in head, hide, and bone, and the other a trifle too rugged, or what might be termed slightly on the coarse order, it will be wisest to select the more rugged steer; he will usually consume more feed, gain more consistently, and make his gains at less cost than will the over-refined animal. A thrifty, healthy steer makes known the fact in a bright, clear eye, sleek coat of hair, and a loose, snappy hide, He is wide awake and gives evidence that he "feels good."
- g. Natural Fleshing
- h. Condition
- i. Breeding: The beef-bred animal is more rectangular in build, more compact and blocky, than
 the dairy-bred steer. The steer of beef
 breeding is plumper and thicker in his muscles
 throughout. The dairy-bred steer stands high
 off the ground, has a long, narrow head, cuts
 up in the flank, and is split up in the twist,
 "cut hammed," and rough in conformation over
 the hips and rump.
- j. Disposition Nervous, restless cattle are profit-losses on feed. The eye and the carriage of the head, ears, and tail are indications of the disposition. A high-headed, wild-eyed steer, with ears in motion to catch the slightest sound, stampedes on the least provocation.
- k. Style

 A low-backed, awkward, slouching kind of a steer may feed as well and yield as good a carcass as a wide-awake, straight-lined steer that stands squarely on his legs, but the latter steer looks much better and attracts more favorable attention on the market than the former.

1. Uniformity

In size, condition, color, and other points adds much to the attractiveness of a load of cattle and in buying feeders, this point is worthy of attention. They look better in the feed lot, finish for market at about the same time, and an even load of steers attract more attention on the market than does a mixture of all sizes, colors and sorts.

APPENDIX C

UNIT THREE

(TEACHERS - You should during the process of this unit, be familiar or keep in touch with the current market on all the grades of feeders and slaughter steers.)

ASSUMPTIONS: Students are familiar with the grades of slaughter and feeder cattle.

PROBLEM AREA: Buying Feeder Cattle and an Introduction to Banking and Financial Management

MAJOR OBJECTIVES:

- 1. Students will be able to calculate interest on borrowed money.
- 2. Students will be able to write the market prices of all grades of feeder cattle.
- 3. Students will be able to identify in writing the different grades of feeder cattle.
- 4. Students must be able to write a short paragraph discussing the different grades of feeder cattle and factors that contribute to each grade.
- 5. Given a specific grade, weight, price per pound, students will be able to calculate the cost of a feeder calf.
- 6. Given the necessary information, students will be able to determine by means of calculation, how many pounds of feed a calf will eat in a specific period of time.
- 7. Take a field trip to the local auction to watch the selling process of feeder cattle with the idea in mind of buying a group of feeders of a specific grade, weight and price per pound for the feed lot.

(TEACHERS - IF THE OPPORTUNITY AFFORDS ITSELF FOR YOUR PARTICULAR SCHOOL, a field trip at any time would be good to look at the different grades of feeder cattle.)

INTEREST APPROACH: Have you ever thought about feeding out a bunch (or group) of steers or heifers? You know someone feeds out the beef that we eat, so why don't we feed out a group of steers or heifers? If we were going to feed out a group of cattle, what would be some questions we would need to think about?

STUDY QUESTIONS:

- 1. What to feed out steers or heifers?
- 2. What grade to start with.
- 3. How many calves to feed.
- 4. Where would we buy the cattle?
- 5. What weight steers would we buy?
- 6. How much are the calves going to cost?
- 7. Where are we going to get the money?
- 8. How much will the interest rate be for the borrowed money?
- 9. How long will I need the money borrowed for buying the calves?
- 10. Where will I get the feed?
- 11. How much feed will it take to feed out all the calves?

- 12. How much feed will a calf eat?
- 13. How much feed does it take to put on a pound of gain?
- 14. Can I borrow money from the bank to buy feed?
- 15. How much will the interest rate be for the money borrowed to buy feed?
- 16. How much weight will a calf put on per day?
- 17. How long will I feed the calves?
- 18. Will a feeder calf improve in grading when finished to a slaughter grade?
- 19. What does the future market look like?
- 20. How far is it to the nearest market?

SUMMARY OF INFORMATION:

- 1. What to feed out steers or heifers?
 - a. Advantages and disadvantages to both.
 - b. Feeder steers will bring more when finished out, but will cost more in the beginning.
 - c. Heifers will bring less than steers when finished, but also cost less in the beginning.
 - d. Heifers might gain at slightly a higher rate than steers.
 - e. Bulls will gain faster than steers or heifers either one.
- 2. What grade to start with:
 - a. Individual preference.
 - b. Depends on the current market (if prices are high, some start with lower grades.)
 - c. Depends where you plan on selling. (Some markets like to have certain grades of cattle.)
 - d. How long you plan on feeding the calves and the grade wanted at the end of the feeding period.
- 3. How many calves will I feed out?
 - a. Depends on the facilities you have.
 - b. Depends on the amount of money you have to invest or the amount of money you can borrow.
 - c. Stability of the market.
 - d. Availability of feed.
 - e. Distance to the market (would cattle have to be shipped a long way to market?)
- 4. Where will you buy the cattle to begin with?
 - a. Is the type of cattle available locally that you want to feed out?
 - b. Can you buy them through the local auction?
 - c. Can cattle be contracted from ranchers in your immediate area? (TEACHERS Might need to explain contracted,)
 - d. Would cattle have to be shipped in from another area or perhaps another state?

- 5. What weight steers or heifers would we buy to begin with?
 - a. Availability of money and present market.
 - Desired product at end of feeding period.
 - (1) 120 days feeding period.
 - (2) 350-400 pound calf start = 600-650 pound calf finish.
 (3) 200-250 pound calf start = 450-500 pound calf finish.
 (4) 450-500 pound calf start = 1125-1250 pound calf finish.
 - Anticipated future market.
- 6. How much are the calves going to cost?
 - a. Present market: Steers \$27.00; Heifers \$25.00.

- b. Cost depends on what you buy as far as weight and grade is concerned.
- c. How many you plan on feeding.
- 7. Where are we going to get the money?
 - From savings (if money is in the savings account, it will be making you from 4 to 5 percent interest).
 - Money in the checking account. b.
 - Borrow from the bank.
- 8. How much will the interest rate be for the borrowed money?

(TEACHERS - Figure different examples for the class. Then have class figure several examples.)

- 9. How long will I need the money borrowed for buying the calves?
 - a. Length of feeding period.
 - b. Interest rate would have an influence on this.
- 10. Where will I get the feed?
 - a. Home grown.
 - b. Local feed mill mix ration.
 - c. Commercial sacked feed.
- 11. How much feed will it take to feed out all the calves?
 - Factors to consider in weight of steer (thumb rule).
 - $3 \times wt + 3 \text{ lbs} = 11 \text{ lbs per day}$ 300 lb steer
 - 300 lb steer

 3 x wt + 2 lbs = 14 lbs per day

 500 lb steer

 3 x wt + 1 lb = 16 lbs per day

 3 x wt + 0 lb = 18 lbs per day

 3 x wt + 0 lb = 20 lbs per day (2)
 - (3)
 - (4)

 - (5) (6) $3 \times \text{wt} - 2 \text{ lb} = 22 \text{ lbs per day}$ 800 lb steer
 - 900 lb steer $3 \times \text{wt} 3 \text{ lb} = 24 \text{ lbs per day}$

(TEACHERS - Using this chart a student can answer questions 11 and 12).

- 12. How much feed will a calf eat?
 - a. Refer to above chart.
 - b. 120 days in the feed lot.
- How much feed does it take to put on a pound of gain?
 - For our exercise, we plan on using 7 pounds of feed for one pound of gain. (This is not an exact figure, but a good rule of thumb).
- Can I borrow money from the bank to buy feed?
 - a. Yes if credit rating is good.
 - b. Calves can act as security or collateral. (TEACHERS You might need to explain these terms.)
- How much will the interest rate be for the money borrowed to buy the feed?
 - a. Local interest rates 8 to $9\frac{1}{2}$ percent.
 - b. Check other sources of borrowing money.
 - c. Make arrangements with feed company and perhaps you could get a better interest rate.
- 16. How much weight will a calf put on per day?
 - a. Normally a calf will average 1 3/4 pounds to 2 1/2 pounds.
 - b. Size will have an influence on the daily gain.

(TEACHERS - Lets do our figuring on 2 1/2 pounds per day.)

- 17. How long will I feed the calves?
 - a. Normally 120 days make up a feeding period.
 - b. Some cattle are carried in the feed lot for 150 days if being fed to a high grade or heavy weight.
- 18. Will a feeder calf improve in grading when finished to a slaughter grade.
 - a. Yes
 - b. Normally or most of the time, you can increase one grade from feeder to slaughter (a feeder hopes to accomplish this).

(TEACHERS - In our project we are going to consider that each calf increases one grade,)

19. What does the future market look like?

Discussed in the class.

(TEACHERS - Check on the current market as to the prices of different grades.)

20. How far is it to the nearest market?

Question to be discussed in class in relation to the expenses of shipping and the time involved in getting the cattle from the lot to the pen.



UNIT THREE-A

PROBLEM AREA: Fundamentals of Banking with Emphasis on Banking Terms

MAJOR OBJECTIVES: Students to be able to explain in writing an accepable explanation to all terms listed.

INTEREST APPROACH: Knowing the meaning of banking terms is very important in order for you to be able to talk intelligently about banking. In today's society one often has to depend on the bank for financial assistance so an understanding of the terms is very important.

TERMS TO DEFINE:

- 1. Deposit
- 2. Withdrawal
- 3. Teller
- 4. Depositor
- 5. Interest
- 6. Cashier
- 7. Endorse
- 8. Exactly
- 9. Currency
- 10. Account
- 11. Collateral
- 12. Security
- 13. Note
- 14. Principal
- 15. Mortgage
- 16, Loan
- 17. Bank Draft

APPENDIX E

UNIT THREE-B

PROBLEM AREA: Discussion of Topics Related in Banking

MAJOR OBJECTIVES: All students participate in class discussion.

INTEREST APPROACH: In a few days we are going to set up a simulated (explain simulated) bank in our classroom. Each member of the class is going to make a make-believe loan. It is very important that you have the understanding of banking terms and know how to make a loan.

STUDY QUESTIONS OR TOPICS FOR CLASS DISCUSSION:

- 1. Checking accounts
- 2. Savings accounts
- 3. Business loans
- 4. Home improvement loans
- 5. Personal loans
- 6. Automobile loans
- 7. Cashier's checks
- 8. Traveler's checks

APPENDIX F

UNIT THREE-C

PROBLEM AREA: Fundamentals of Banking with Emphasis on the Bank Signature Card

MAJOR OBJECTIVES:

- 1. Encourage favorable attitude toward banking.
- 2. Students will be able to fill out a bank signature card.
- 3. Students will be able to list in writing the importance of a bank signature card.

INTEREST APPROACH: Have you ever thought how a bank identifies the signatures of the many checks that they receive each day? How can a bank employee tell if a signature has been forged (might need to explain forged), on the check? Could someone learn to sign your name just exactly like you do? Correct signature on a check is very important.

STUDY QUESTIONS:

- 1. Why should you fill out a bank signature card?
- 2. Do all banks require a bank signature card?
- 3. Should you fill out the bank signature card out in ink or would pencil be o.k.?

SUMMARY OF INFORMATION:

- 1. Why should you fill out a bank signature card?
 - a. Bank will have a record of your signature.
 - b. Prevent someone from forging your name,
 - c. Enables the employees at the bank to correctly identify your signature.
 - d. Checks written by you can properly be deducted from your account (might need to explain account).
- 2. Do all banks require a bank signature card?
 - a. Yes, in order to correctly identify each depositor if he has a checking account (might need to explain depositor and checking account). When an account is opened for checking purposes, a signature card must be signed by the person who will be drawing on the account.
- 3. Should you fill out the bank signature card in ink or pencil?
 - a. Card should be filled out in ink.
 - b. All checks should be written in ink,
 - c. Prevents someone from changing the signature or tampering with the checks.
 - d. Most banks will reject or refuse to accept a check if the signature has been erased or changed in any way.
 - e. Signature cards and checks should never be written in pencil.

4. Working Example: Each student will fill out a bank signature card in ink.

(TEACHERS - Emphasize neatness in all work completed.)

Exercise Number 1

BANK SIGNATURE CARD

When a person opens an account with the bank, he is required to fill out a signature card. This card remains in the bank for future reference.

Fill in this card:

FIRST NATIONAL BANK OF RICHLAND CITY
Name
Address
City and State
Telephone
Business
Address
Reference
Date
I hereby agree to the regulations and rules of the First National Bank of Richland City.
Signature as will appear on all checks

Supplementary Study: Secure information on the rules and regulations of different banks in your town or city.

APPENDIX G

UNIT THREE-D

PROBLEM AREA: Fundamentals of Banking with Emphasis on the Deposit Slip

MAJOR OBJECTIVES:

- 1. Encourage favorable attitudes toward banking.
- 2. Students will be able to make a correct bank deposit slip.
- 3. Students will be able to list in writing the importance or use of a deposit slip and an account number.

INTEREST APPROACH: When deposits are made, how are they kept separate? What keeps an employee of the bank (teller) from getting your money mixed up with someone else's? Your deposit slips and account number are two important parts of the banking system.

STUDY QUESTIONS:

- 1. What is a deposit slip?
- 2. What information is found on a deposit slip?
- 3. What is an account number?
- 4. Should this be filled out in ink or pencil?
- 5. Where do you get your account number?
- 6. How can you remember your account number?

SUMMARY OF INFORMATION:

- 1. What is a deposit slip? A slip or ticket filled out each time you make a deposit showing how much money you deposited to your account.
- 2. What information is found on a deposit slip?
 - a. Your name and address.
 - b. Name and address of the bank.
 - c. Your account number.
 - d. Amount of money deposited in currency (might need to explain currency), coins, and checks.
 - e. Total amount deposited.
- 3. Should deposit slip be filled out in ink or pencil?
 - a. Ink Should be filled out in ink for the same reasons as the signature card; to prevent anyone from making a change.
- 4. What is an account number? It is a number that identifies your account with your name as you filled out on the signature card.
- 5. Where do you get your account number?
 - a. Assigned to you by the bank.
 - b. Never changed unless requested by you or account is closed.

- c. Never changed unless the bank for some reason issues a new number to you.
- 6. How can you remember your account number? The bank issues a card to each depositor that has the account number printed on it.
- 7. Example: Each student will fill out a deposit slip correctly.

 (TEACHERS Emphasize neatness and accuracy in all work.)

Exercise Number 2

DEPOSIT TICKET IN CHECKING ACCOUNT

Your pay check is \$63.48, but you want to deposit only \$20.00 in a checking account. Complete the deposit slip below to show this transaction.

Deposited by		Dollars			
	Currency	:			
Name	Coin				
Address	Checks		·		
First National Bank					
of Richland City					
Your own personal number					
	Total				
	10001				

APPENDIX H

UNIT THREE-E

PROBLEM AREA: Fundamentals of Banking with Emphasis on Writing the Check

MAJOR OBJECTIVES:

- 1. Encourage a favorable attitude toward banking.
- 2. Students will be able to fill out a check and check stub.
- 3. Students will be able to list in writing the importance of filling out a check correctly.

INTEREST APPROACH: Have you ever thought of how many checks are written each day? What are the advantages of being able to write a check? Is carrying a check book safer than carrying money? What are some of your responsibilities as an individual toward your checking account?

STUDY QUESTIONS:

- 1. What happens if you have cash in your pocket and you lose it?
- 2. What happens if you lose your check book?
- 3. Do you remember what we studied in regard to your signature on the checks? What factors need to be considered in writing a check?
- 4. What responsibilities do you as an individual have in regard to your checking account?
- 5. What is the value of having a cancelled check?
- 6. In writing a check, do you need to use a check from your own bank or will a check from any bank be o.k.?
- 7. What happens to a check after it is written?

SUMMARY OF INFORMATION:

- 1. What happens if you have cash in your pocket and you lose it? It's gone! At least 99 percent of the time it is gone.
- 2. What happens if you lose your check book? Nothing!
- 3. What factors need to be considered in writing a check?
 - a. Write plainly.
 - b. Make figures distinctly easy to read.
 - c. Write in ink.
 - d. Sign check the same way as you signed your signature card.
- 4. What responsibilities do you as an individual have in regard to your checking account?
 - a. Keep up with your balance (might need to explain balance) and never overdraw on your account.
 - b. Writing checks without enough funds to cover the check leads to a bad reputation if done very often,

- 5. Value of having a cancelled check:
 - a. If you should lose your purchase or sale payment receipt, then the check can serve as a receipt for you.
 - b. Represents payments.
- 6. In writing a check, do you need to use a check from your own bank or will a check from any bank be o.k.?
 - a. Banks will not accept checks that do not have their bank account number on them, sometimes referred to as magnetic account number.
 - b. Individual depositors may have personal checks with their individual account number on it, or use checks furnished by their bank with only the bank's magnetic account number on it.
- 7. What happens to a check after it is written?
 - a. It becomes the same as cash.
 - b. The check is sent to the bank to be deposited into the account of the individual or company to whom the check was written.
 - c. The check then is forwarded through channels to your bank and the amount of the check is deducted from your account.
- 8. Working Example: Each student will fill out a check and a check stub completely and correctly.

(TEACHERS - Emphasize neatness in all work completed.)

Exercise Number 3

CHECK AND CHECK STUB

Steve Baker wrote a check to the Down Younder Feed Store for \$21.67. The check stub shows that Steve has \$68.00 in his checking account. Complete this check and fill in the stub:

	First National Bank of Richland City		
		Date _	
Pay to the Order of _			\$
		·-····································	Dollars
Account Number			

Check	No,	
Date		Amount
То		
For _		
	Previous Balance	
	Deposits	
	Total	
	Amount of Check	
	New Balance	

APPENDIX I

UNIT THREE-F

PROBLEM AREA: Fundamentals of Banking with Emphasis on Drawing from a Savings Account

MAJOR OBJECTIVES:

- 1. Students will be able to define in writing savings account.
- 2. Students will be able to make a withdrawal from a savings account.

INTEREST APPROACH: Have you ever thought of the benefits in having a savings account? Is a savings account better than a checking account? What are the advantages or disadvantages of a savings account as compared to a checking account?

STUDY QUESTIONS:

- 1. What are the benefits of a savings account?
- 2. What are the disadvantages of a savings account?
- 3. Is your money safe in a savings account?

SUMMARY OF INFORMATION:

- 1. What are the benefits of a savings account?
 - a. Will not spend your money as easily can't write a check on money in a savings account.
 - b. Money is making you money. Draws interest.
- (TEACHERS Check and see if a savings and loan association is located in your town and if so, have a resource person talk to the class in regard to the general aspects of a savings association. If this is not possible, have someone from the local bank talk to the class about establishing a savings account.)
 - 2. Is your money safe in a savings association?
 - a. Yes. Each deposit is insured by the Federal government.
- (TEACHERS This statement might need to be checked out with the local bank or savings association.)
 - 3. What are the disadvantages of a savings account?
 - a, Can't write a check on your account.
 - b. Takes time and effort to withdraw money from the savings account and having it deposited into the checking account.
 - 4. Working Example: Each student will fill out a withdrawal from his savings account.

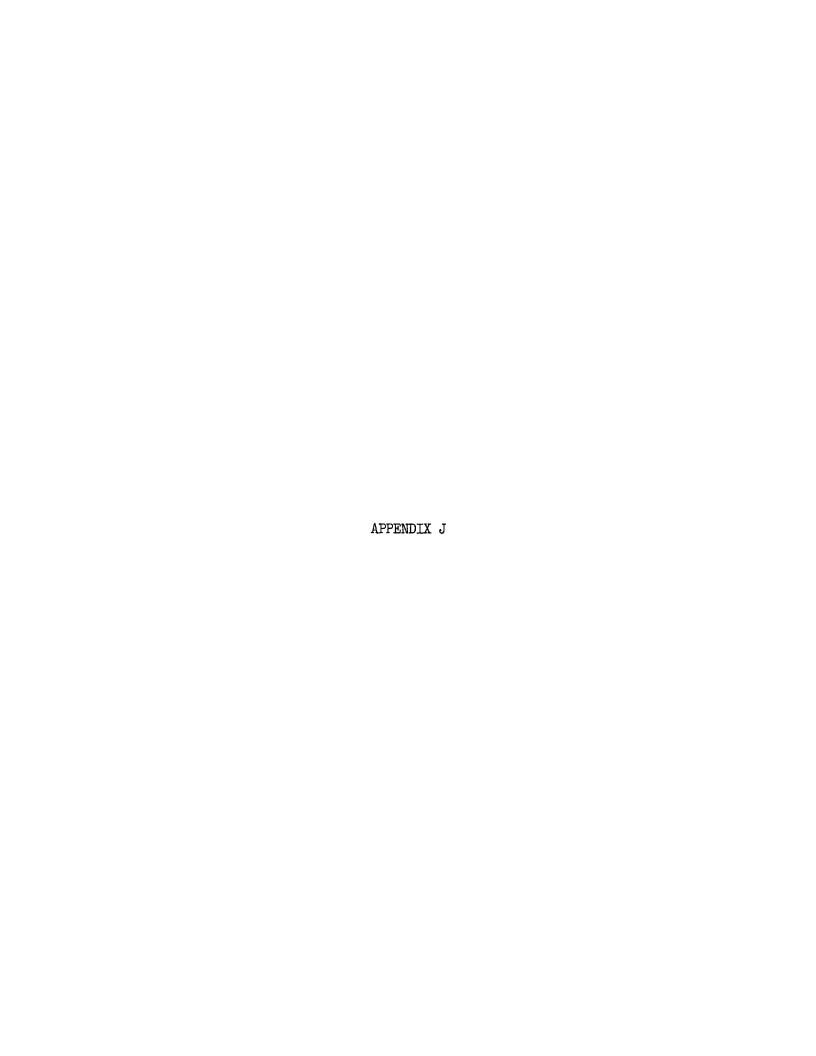
(TEACHERS - Emphasize neatness in all work completed.)

Exercise Number 4

WITHDRAWAL FROM SAVINGS ACCOUNT

You need \$10.00 from your savings account to make payment on a bill. Fill out this form as though you were withdrawing \$10.00. Make up your own account number.

SAVINGS WITHDRAWAL First National Bank of Richland City	Account Number
	Dollars
	Signature



UNIT THREE-G

PROBLEM AREA: Fundamentals of Banking with Emphasis on Figuring Interest and Types of Accounts

MAJOR OBJECTIVES:

- 1. Students will be able to calculate interest.
- 2. Students will be able to participate in a class discussion in regard to banking.

INTEREST APPROACH: In today's modern society a person many times has to depend on the bank for financial assistance. It is very important that a person have a good understanding of how a bank operates and be able to discuss business in regard to banking.

STUDY QUESTIONS:

- 1. What is the difference between a checking account and a savings account?
- 2. Why are check stubs important?
- 3. What is a bank statement?
- 4. What is the correct procedure if a check is lost or stolen?
- 5. Why is it important never to erase or change figures on a check?
- 6. Why should a person never write a check for an amount greater than the balance in the checking account?
- 7. How do we determine the interest on a given amount of money borrowed?

SUMMARY OF INFORMATION:

- 1. What is the difference between a checking account and a savings account?
 - a. Savings account draws interest.
 - b. Checking account draws no interest.
 - c. Can write checks on the checking account as long as you have a balance big enough to cover the amount of the check.
- 2. Why are check stubs important?
 - a. Able to keep up with the number of checks written.
 - b. Serves as a double to keep up with checks written and the balance of account.
 - c. Shows when (date) and to whom you wrote the check.
 - d. Shows the balance in your account.
- 3. What is a bank statement?
 - a. A listing of all checks written and an account balance,
- 4. What is the correct procedure if a check is lost or stolen?
 - a. Notify the person who signed the check and he can stop

payment on the check.

b. If you sign one yourself and lose it, then notify your bank and stop payment on it.

(TEACHERS - You might need to explain the above more.)

- 5. Why is it important never to erase or change figures on a check?
 - a. Check might be rejected when it returns to the bank.
 - b. It is unlawful to make changes on checks.
- 6. Why should a person never write a check for an amount greater than the balance in the checking account?
 - a. Check will not be good (referred to as a "hot check").
 - b. Builds up a bad reputation for the individual who writes the check.
 - c. Ruins your credit rating with the bank.
 - d. Against the law.
- 7. Problem: Since the First National Bank of Richland City pays $4\frac{1}{2}$ percent interest yearly on money deposited, how much interest would Steve Baker have earned in one year if he had \$815.00 in his savings account?
- 8. At this point it might be good to explain the difference or make a comparison of bank interest on borrowed money and interest paid on money in a savings account.

(TEACHERS - Emphasize neatness and correctness at all times.)



UNIT THREE-H

PROBLEM AREA: Banking (Borrowing Money to Feed and Buy Cattle)

ASSUMPTIONS:

- 1. Each student is ready to buy a group of feeders to put in the feed lot.
- 2. Time and all other factors are conducive to feeding cattle.
- 3. Students know how many steers they are going to feed; how much feed it will require; what the present market is; and what the future market looks like.
- 4. He has selected the grade of feeders he wants to buy.
- 5. He knows the length of time he plans on feeding the cattle.
- 6. He can figure interest rate.
- 7. He can discuss the banking terms covered in a previous unit.
- 8. Students have figured the total expected cost of feeding the steers and can discuss this with the banker.

MAJOR OBJECTIVES:

- 1. To establish a simulated bank in the local classroom.
- 2. Each student to serve as a bank employee making a loan.
- 3. Each student will make a loan.
- 4. Each student will decide how many feeders he will buy and figure out how much money he will need to complete his project, and then he will make the loan from the bank.

(TEACHERS - We should make this simulated situation as real as possible. Students who are serving as the bank employees should be as sincere in their roles as the one buying the cattle.)

INTEREST APPROACH: If you were employed in a bank and a person came in to borrow some money, what would you expect from this person? Many times in one's life financial assistance from a lending agency is needed. At times you borrow money to make money. Banks are in the business to loan money and want to loan money if the borrower has good credit and can justify his request for a loan.

Tape should be played if the teacher thinks it would be useful in teaching the students how to make a loan.

STUDY QUESTIONS:

- 1. Who is the first person you see in regard to your business at the bank when you enter the bank building?
- 2. How should this person be greeted?
- 3. How should you dress?
- 4. What should your over-all appearance be?
- 5. What should your attitude be toward the people in the bank (or anywhere as far as that goes)?
- 6. How should you introduce yourself?
- 7. At the end of a conversation or if you had a question answered by a person, how should you react?

(TEACHERS - Play the tape that has been prepared on borrowing money. Point out the answers to the questions listed above that can be answered and go over the other questions.)

SUMMARY OF INFORMATION:

1. Who is the first person you see in regard to your business at the bank when you enter the bank building?

The receptionist.

- 2. How should this person be greeted?
 - a. In a courteous tone of voice. EXAMPLE: "Good Morning" or "Good Afternoon" depending on A.M. or P.M.
 - b. Introduce yourself and ask to see the person whom you need to see.
 - c. Then reply: "Thank you" at the end of the conversation.
- 3. Dress: Appropriate for the occasion and community not necessary to wear a suit, but should be clean and neat.
- 4. What should your overall appearance be?
 - a. Clean
 - b. Neat
 - c, Well groomed
- 5. What should your attitude be toward the people in the bank?
 - a. Appreciation
 - b. Grateful
 - c. Complimentary
 - d. Kind
 - e. Friendly
- 6, How should you introduce yourself?
 - a. State your name.
 - b. Give a firm hand shake with a statement such as "Nice to meet you, Mr. Smith," or if you already know the person, you might say, "Nice to see you again, Mr. Smith."
- 7. At the end of the conversation, or if you had a question answered by a person, how should you react?
 - a. "Thank you very much."
 - b. "I appreciate this very much."
 - c. Any way to show your appreciation and kindness.

MAKING THE LOAN: Points to cover

1. Introduction of self (response to introduction).

- 2. Statement of reason for visit.
- 3. Discussion of subject stressing.
 - a. Number of steers plan to buy.
 - b. Cost of calves and feed.
 - c. Length of time wanted money.
 - d. Interest rate.
 - e. Expected rate of gain.
 - f. What you plan to offer as security.
 - g. How you plan to market the calves.
 - (1) On hoof.
 - (2) On the rail (carcass).
- 4. Signing the note.
- 5. Showing your appreciation to the banker for making the loan.

(TEACHERS - In regard to Question 3 in making the loan - students should work this out in class in detail. These figures will be needed when determining the profit and loss in the next lesson.)



UNIT FOUR

PROBLEM AREA: Selling Slaughter Cattle

(TEACHERS - Before this unit is started a field trip should be made to the local auction and have students observe the selling of slaughter cattle with the idea in mind that this might be their own cattle. If at all possible, a trip should be made to a slaughter house to see cattle hanging on the rail (with the idea in mind that this might be their cattle). Emphasis should be made in regard to keeping up with the market report.

You should find out the expense involved in selling cattle in your local situation.

ASSUMPTIONS:

- 1. One hundred and twenty days have passed since we purchased our feeder cattle.
- 2. During the feeding of our feeder cattle, the grade of our steers have increased one grade.
- 3. We can either market our cattle through the local auction on the hoof or we can sell by dressed weight (on the rail) to our local butcher. (TEACHERS let each student market some of his cattle if he wants to through the local butcher, but he has to market some through the local auction also. It would be ideal if the students would market in both places.)
- 4. Market has stayed steady no increase or decrease in prices.

MAJOR OBJECTIVES: (Complete in order of listing)

- 1. Students will be able to figure commission for selling his cattle and other expenses involved.
- 2. Students will be able to figure the value of a steer (on hoof) when given the gross weight and price per pound.
- 3. Students will be able to figure the dressing percent of slaughter steers and value of the carcass when given the price per dressed pound.
- 4. Students will be able to make a comparison as to which way is the best way to market the animals through the local auction or through the local butcher.
- 5. Students will be able to write a business letter to the local auction in regard to selling the cattle.
- 6. Students will be able to write a business letter to the local butcher in regard to marketing the cattle.
- 7. Students will sell their calves (some to the local auction and some to the local butcher).
- 8. Students will be able to determine profit and loss in selling cattle.
- 9. Simulated bank to be established again to pay off the bank loan.
- 10. Students will be able to write a letter to the banker expressing their appreciation for his help in financing the cattle.
- 11. Students will be able to write a paper discussing banking, buying feeder cattle, feeding out cattle, selling slaughter

cattle on the rail and on the hoof.

INTEREST APPROACH: You (students) have done a tremendous job of feeding out your pens of cattle, and now you are ready to sell. You are interested in making as much profit as possible. The question comes to your mind, "How can I receive the greatest profit?" After much thought you decide to contact your local butcher and your local auction to see about selling your cattle.

STUDY QUESTIONS:

- 1. What will be the expense involved in selling the cattle at the local auction?
- 2. What is the value of my steers on foot?
- 3. What is the dressing percent of each grade of slaughter steers and what percent will my (student) cattle dress out and what will they bring?
- 4. How can you make a comparison between selling on the hoof and dressed percent,
- 5. A letter written to a local auction inquiring about selling your cattle should include what?
- 6. A business letter written to the local butcher in regard to selling your cattle should include what?
- 7. How do you sell cattle (students sell their cattle)?
- 8. How do you determine profit and loss in feeding and selling cattle?
- 9. In paying off a note at the bank, what are some of the procedures involved?
- 10. In writing a letter to the banker expressing your appreciation, what should be included?
- 11. What would be some of the factors to consider in buying feeder cattle, borrowing money from the bank to buy your cattle, buying feed, selling slaughter cattle on the rail and on the hoof?

SUMMARY OF INFORMATION:

- 1. Student will be able to figure commission for selling cattle and other expense involved. (TEACHER check with local situation.)
 - a. Trucking

d, Vet Inspection

b. Yardage

e. Commission

- c. Brand Inspection
- 2. What is the value of a steer on foot? How is this value determined?

Steer weight 983 pounds (grade good)

x .2775 price per pound

\$.272.78

(TEACHERS - Have students figure several problems like this. For the students feeding situation he would then multiply the number of steers finished out, or if there were difference grades, he would

figure each steer then add the totals together.)

- 3. Dressing percents of slaughter cattle, and how to figure selling value.
 - a. Students will recall the approximate dressing percent of the different grades of cattle.
 - (1) Prime 60 67 % (2) Choice 57 - 63 % (3) Good 56 - 60 % (4) Standard 53 - 58 % (5) Commercial 52 - 60 % (6) Utility 47 - 55 % (7) Cutter 43 - 52 % (8) Canner 34 - 46 %
 - b. 967 pound good steer What will be his carcass weight?

(TEACHERS - Figure a problem with each grade showing the comparisons of dressed percentages.)

- 4. Comparison of selling on the hoof and dressed percentages.
 - a. 967 pound good steer hanging on the rail would sell for \$314.08.
 - b. What would a 967 pound good steer sell for on the hoof?

967 lbs.
$$\frac{\text{x.2775}}{\text{278.34}}$$
 local market price (TEACHERS - check on the local market)

- c. If the local butcher could handle all your cattle which one would you sell to - the butcher or the local auction? Why?
- d. In this example, what would the difference be between the local auctions price and the butcher's price?

5. A letter written to the local auction in regard to selling your cattle should include:

- a. Date expected to sell.
- b. Number of steers to sell.
- c. Grade and approximate weight.
- d. Breed of steers.
- e. Type of accommodations wanted for cattle.
 - (1) Water
 - (2) Feed
 - (3) Bedding
- (TEACHERS Encourage neatness, correct form for business letter, correct spelling and sentence structure. Letter should be written in own hand writing. Letter is not to be actually mailed.)
 - 6. Business letter to local butcher should include: (TEACHERS use business form on sample.)
 - a. Number of cattle he wants to sell.
 - b. Approximate weight and the grade of each calf.
 - c. Time of delivery.
 - d. Express his appreciation for doing business with him.
- (TEACHERS Use business form in writing the letter encourage neatness, correct spelling, sentence structure, and write in own hand writing.)
 - 7. Selling of Calves: (TEACHERS All this time help students to decide which way they plan to market their cattle. It would be better if each student would market some each way, on hoof and on rail; this would give the student more experience in figuring their profit and loss.)
 - 8. Determining profit and loss in feeding and selling cattle:
 - a. Expense in feeding cattle:
 - (1) Total expense in buying cattle total cost of cattle at time of purchase and interest on money.
 - (2) Cost of feed and other expenses involved in feeding. Include interest on money (if borrowed).
 - b. Cost of selling:
 - (1) Commission

(5) Vet Inspection(6) Trucking

(2) Yardage

(0) 110

- (3) Feed
- (4) Brand Inspection
- (7) All other expenses that would be involved in selling
- c. Determine amount of gross sales check:
 - (1) If sold by the pound on hoof: Weight x price x number of head.

- (2) If sold on the rail: Pounds of dressed weight x price x number of head.
- d. Total amount of expenses:
 - Cost of Cattle
 - (2) Cost of Selling
 - Cost of Feed
 - Cost of Interest
- e. Substract the amount of expense (d) from the amount of gross sales (c) = Net Profit.
- f. Net profit made on feeding cattle,
- Simulated bank situation to be set up again and students will pay off their bank loans.
- Students will write a letter to the banker expressing his appreciation for help in financing the cattle.
 - a. Letter should include:
 - (1) Appreciation for financial assistance.
 - (2) A feeling of sincerity.(3) Neatness.

 - (4) Good writing, sentence structure.
- 11. Students will write a paper discussing banking, buying feeder cattle, feeding cattle, selling slaughter cattle on the rail and on the hoof.
- (TEACHERS Let the students construct this paper in the way they want. This is to see what they can do in terms of writing a paper by themselves. Encourage neatness, correct spelling and sentence structure. Written in the form of a theme paper.)

LETTERHEAD

Date

Ac	ldı	es	SS																											
Sa	ılı	ıta	at:	ior	1:																									
		I	300	ly	of	•]	Let	te	er	٥	•	٥	o	۰	D	o	٥	o	o	٥	•	o	۰	D	0	0	0	۵	o	o
o	o	٥	•	o	o	o	o	a	ø	۰	٥	o	o	•	0	o	o	٥	o	o	o	٥	۰	٥	٥	٥	o	o	o	o
o	o	o	o	o	•	o	۰	o	o	۰	۰	o	٥	o	o	٥	٥	٥	o	o	٥	۰	o	o	o	o	۰	۰	o	o
		F	300	ly	sh	01	ıld	1 }	эе	si	ne	ţle)-6	spa	ace	ed	٥	•	o	٥	o	0	۰	o	o	٥	o	•	o	o
o	•	o	,	0	o	o	٠	o	0	o	o	۰	٥	•	•	۰	o	0	o	۰	o	٥	•	۰	o	<i>o</i> .	۰	o	o	o
																Co	mŗ	ilc	me	nt	ar	У	C]	Los	ir	ıg,	,			
																(N	lri	Lte	r	s	Si	gr	nat	ur	·e))				
																							lo				ıtε	ed	Na	ame

APPENDIX M

UNIT FIVE

PROBLEM AREAS: Securing Employment

TEACHING UNITS: Writing a letter of appreciation inquiring about a job; filling out a job application; interviewing for a job; playing the role of an employer and a prospective employee.

SITUATION I: Students enrolled in Vocational Agriculture I.

SITUATION II: Students who need to be taught the importance of securing employment, factors involved in job interviews, and filling out the job application. (Realizing that a majority of the students will be 14 to 15 years of age, too young for some jobs, this might be the only opportunity for some of these students to be introduced to the factors involved in applying for a job.)

MOTIVATION: Summer vacation is just about here and everyone will be interested in summer employment. There is a feeling of self-satisfaction when you get a job and perform some useful service (whatever it might be as long as it is honest). Important in securing this job is your ability to communicate with the employer. It is of most importance to be able to write a proper letter to ask for a job, be able to accurately fill out a job application and be able to talk with the employer. There is a direct relation between employment and school. Employers are looking for capable young men who want to work and have the right attitude about working and who have prepared themselves with an education.

(TEACHERS - This lesson is to cover the total picture of applying for and securing employment. It should always be kept in mind that it is not the amount of material we cover that is important but the way we cover the material. You are expected to use your own initiative, to make the subject matter as real and meaningful to the students as possible.)

METHOD OF INSTRUCTION: Simulated experience in securing employment (Playing the roles of employer and employee). Unit Five will be divided into the following sub-units.

SUB-UNIT I: Method of Instruction

- 1. Discussion
- 2. Supervised Study
- 3. Individual Instruction
- 4. Handout

SUB-UNIT II: Method of Instruction

- 1. Discussion
- 2. Transparencies
- 3. Individual Instruction
- 4. Handout

SUB-UNIT III: Method of Instruction

- 1. Simulated Post Office
- 2. Students paired3. Discussion
- 4. Transparencies
- 5. Individual Instruction
- 6. Handout

SUB-UNIT IV: Method of Instruction

- 1. Simulated Post Office
- Students paired
 Discussion
- 4. Transparencies
- 5. Individual Instruction6. Handout

SUB-UNIT V: Method of Instruction

- 1. Simulated Office
- 2. Students paired
- 3. Discussion
- 4. Individual Instruction

SUB-UNIT VI: Method of Instruction

1. Discussion

SUB-UNIT VII:

1. Handout

(TEACHERS - Define all words that students might not know or that you don't think they know.)

SUB-UNIT I: Selecting a Job

Instructional Objectives: Students will be able to:

- 1. List 5 areas of primary interest.
- 2. List 6 sources in which he may look for employment.
- 3. Select one job opportunity for further investigation (should fall in one of the 5 areas listed above.)

Study Questions:

- 1. What are the five primary areas in which you would like to seek summer employment?
- 2. What are six sources that you could refer to when seeking summer employment?
- 3. What job do you want to further investigate?

Summery of Information:

- 1. Areas where job opportunities may exist:
 - a. Welder's helper
 - b. Stock clerk (grocery stores, etc.)
 - c. Service station attendant
 - d. Lumber company
 - e. Livestock producers
 - f. Plumber's helper
 - g. Wildlife Conservation
 - h. Carpenter's helper
 - i. Mason's helper
- 2. Six Sources of Information:
 - a. Employment Agencies State and Independent
 - b. Newspaper (classified and news)
 - c. Radio
 - d. Friends
 - e. Bulletin Boards (Feed stores, grocery stores, etc.)
 - f. Placement Service offered by training centers
- 3. What job did you select to investigate?
- 4. Why did you select this job?
- (TEACHERS Use handout, "Suggested Form for Studying an Occupation", to assist student in studying selected job.)

SUGGESTED FORM FOR STUDYING AN OCCUPATION

		Name:									
		Date:									
Complete	e the	e blanks or underline either <u>yes</u> or <u>no</u> .									
I.	Classification of the Job A. General										
	ь.	Specific Dianon									
	C.	Name of the particular job									
II.		cription of the work on the job (List a minimum of five ies)									
	В.										
	C.										
	D.										
	Ε.										
	F.										
	G.										
	Η.										
III.		cation or Training Needed for the Job What skills do you need? 1									
	В.	What courses in high school would help to prepare you for this job?									
	_										
	C.	Where can you get the training needed for this job? 1. 2.									
		3									
IV.	Pers Job A.	sonality Traits, Interests, Aptitudes, etc., Needed for the									
	В.										
	C.										
	D.										
	E.										
	F.										
	G.										
	Η.										
	I.										

V.	Demand for Workers in This Job	
	A. Are additional workers needed now in thi	s occupation?
	Yes or No	-01 -0 TZ - NZ
	B. Will still more workers be needed in the C. Is it considered a bright future, status	
	C. Is it considered a bright future, status job? (Underline which)	quo or dead end
VI.	Promotion	
	A. Are there opportunities for promotion?	
	B. What appear to be the steps of promotion	.?
	1.	
	2	
	3	
	C. Must one get additional training to qual	ify for promotion?
	Yes or No	in the promotion.
	1. Formal Yes or No	
	2. Informal Yes or No	
	3. Apprentice Training Yes or No	
	D. Are there related occupations to which t either with or without more training?	
	erther with or without more training:	ies of No
	What are some of these?	
777T	Remain no	
VII.	Earnings A. Beginning wage (Underline per hour, per	dorr on non mode)
	\$	day, or per week)
	B. Wage earned by most of the workers	\$
	C. Highest wage	\$
	D. Is there usually a vacation with pay?	\$
	E. (Other benefits)	Yes or No
		••••
WTTT	Harris of Maril	
A TTT.	Hours of Work A. How many hours on the average would one	work in this ich?
	1. Daily	"OTE THE OHER JOB.
	2. Weekly	
	B. Is there additional pay for overtime wor	k? Yes or No
	C. Are there seasonal lay offs?	Yes or No
T 37		
IX.	Health and Safety	Vog. om No
	A. Are there health dangers involved? If so, what kinds?	Yes or No
	II 50, WIIdo KIIIdo.	
	B. Is there a high accident rate on this jo	b? Yes or No
	C. What safety precautions must be taken?	
	1. Wear protective clothing?	Yes or No
	2. Check guards on the machines and	Voc. a. Na
	<pre>equipment? 3. Obey safety rules of the firm?</pre>	Yes or No Yes or No
	A COCA DOTO A TOTOD OF DITO TITIE	TOD OT 110

х.	Employee Organizations of a Full-Time Worker A. Would you be expected to join a union? Yes or No B. Would you be expected to join an employee organization other than a union? Yes or No
XI.	Service to the Community (How do workers in this job serve the community?) A. B. C. D. E.
XII.	Firms in our Town or County where this Type of Job would be Available (List a minimum of three) A. B. C. D. E.
XIII.	Sources of Information Used to Make This Study (List a minimum of three) A. Title Publisher Date Published B. Title Publisher Date Published C. Title Publisher Date Published D. Additional Means 1. 2.
XIV.	How does this job interest you? Appealing Disappointing No Interest Why?

SUB-UNIT II: Writing Letters

Assumptions: Each student has selected a job in which he is going to apply for work this summer. Now he is going to write a letter to the company.

(TEACHERS - By the time the students complete the letters you should be acquainted with the students well enough to use some of your own initiative to create interest in securing a job that has future opportunities, stressing the relationship between school and employment. School offers each of us the opportunity to develop our capabilities and then we can carry these capabilities into our employment opportunities. Thus providing each of us a greater opportunity to get a better job.)

Instructional Objectives: Students will be able to -

- 1. Follow an acceptable form in writing a business type letter, inquiring about possible employment.
 - a. Write clearly in ink on white stationary.
 - b. State the job he wants to apply for.
 - c. Give age and experience.
 - d. Describe training.
 - e. Ask for an interview.
 - f. Spell the names, addresses and all other words correctly.
- 2. Evaluate the good and bad points of letter writing in class discussion. (Students to constructively evaluate one another.)

Study Questions:

- 1. What type (kind) of paper should the letter be written on?
- 2. What are the acceptable writing tools used to write a business letter?
- 3. What are the parts of a business type letter?
- 4. What should be included in the content of a business letter?
- 5. What are the characteristics of a good business letter?
- 6. What are the characteristics of a bad business letter?

Summary of Information:

- 1. Type of paper used good grade of white stationary.
- 2. Acceptable writing tools Typewriter or Ink Pen (Black Ink preferred)
- 3. Parts of business letter:
 - a. Heading
 - b. Inside address
 - c. Salutation-greeting

- d. Body
- e. Closing
- f. Signature
- 4. Content of Body:
 - a. Job you want to apply for
 - b. Age
 - c. Experience
 - d. Training
 - e. Ask for interview (state specific time)
- 5. Characteristics of a good business letter:
 - a. Neat
 - b. Correct spelling of all words
 - c. Correct English and sentence structure
 - d. Clear and to the point
- 6. Characteristics of a bad business letter: Negative to good characteristics.

SUB-UNIT III: Writing a Letter of Reply to Inquire About a Job

(TEACHERS - Students at this time should be paired in order to play the role of employer and employee. Establish simulated post-office for mailing and receiving letters.)

Assumption: Students have written letter in an acceptable form including all necessary information pertaining to job interview and qualifications.

- 1. Student mails letter, addressing the envelope in the correct manner.
- 2. Student picks up his mail.
- Writes a reply letter.

Instructional Objectives: Students will be able to -

- 1. Include the following items in his reply letter:
 - a. Acknowledgement of letter.
 - b. Confirming job opening.
 - c. Enclose an application.
 - d. State length of employment.
 - e. Encouragement for employment.
 - f. Stress importance of education.
 - g. Stress requirements.
 - h. Confirm date of interview.
 - i. Stress importance of positive mental attitude.

Study Question: What items should be included in a letter of reply?

(TEACHERS - Be sure to check each letter for content as well as spelling, sentence structure, format, etc.)

Summary of Information:

- 1. Items to include in a reply:
 - a. Acknowledgement of letter.
 - b. Confirming job opening.
 - c. Enclose an application.
 - d. State length of employment.
 - e. Encouragement for employment.
 - f. Stress importance of education.
 - g. Stress requirements.
 - h. Confirm date of interview.
 - i. Stress importance of positive mental attitude.

SUB-UNIT IV: Filling Out Job Application

Assumption: Each student received a reply letter with a job application enclosed to be completed and returned the day of the interview.

Instructional Objectives: The students will be able to -

- 1. List the questions asked on an application form.
- 2. Fill out a job application in an acceptable form.
 - a. Be neat
 - b. Be accurate and complete (fill out all questions)
 - c. Spell correctly
 - d. Use black ink

Study Questions:

- 1. What are the questions asked on an application form?
- 2. What are the steps in filling out an application?

Summary of Information:

- 1. Questions on an application form:
 - a. Personal information
 - b. Education
 - c. Qualifications
 - d. Previous work experience
 - e. Reference
- 2. Steps in filling out application:
 - a. Read each question carefully before answering.
 - b. Follow all instructions.
 - c. If there is a blank for salary and you are not certain or definite, put in the word "open."
 - d. Print or write neatly in black ink.
 - e. Be accurate.
 - f. Be prepared to furnish references (should get prior permission to use people as references.)

EMPLOYMENT APPLICATION

Please answer each question on both sides of this application fully and accurately.

•				Date)			· · · · · · · · · · · · · · · · · · ·		
NAME	1	cost	· · · · · · · · · · · · · · · · · · ·		First	 		Middle		
ADDRESS	No.	Stree			City			State		
	No.	20.00		.	City		W-4			
Paono No Male or	Female		Social Security		ight		Veteron	-Yes N	<u> </u>	
				Ft.	-	n.				
	Date of Birth				Ple	ce of Birth				
Month	Dary	Year	Ci	ty			State			
Married	(Yes er Mo)	No. of	Children Under 18 1	fears of Age	No. of	Other Dep	pendents	Citizen of	V.S.A ?	
	Father's	Home		City	Path	er's Birthpl	State ,	· · · · · · · · · · · · · · · · · · ·	is He Living?	
.,	Mother's	Name		City	Moth	er's Birthpl	lace State		is She Living?	
	ried Men Shoul 's Pull Name	d Give the l	Following Informatio Birthplace			arried Wor fusband's I		ive the Following Info	rmation hplace	
	₩¥o's	Place of Est	ployment				Husband's Pla	ce of Employment	_	
				EDUC	ATION					
		Name of Sc	:beol	How Lone	Attended	Year (3raduated	Course or	Degree	
Grade School	İ			1			1			
Senior High School										
College									·· · · · · · · · · · · · · · · · · · ·	
Business or Corres. School							· · · · · · · · · · · · · · · · · · ·			
Other Training		 	·			***************************************				
Have You E	ver Had Hear	Trouble_				Hav		a Doctor Lately:		
Have You H	ad An Operati	ion	What	······································	· · · · · · · · · · · · · · · · · · ·	Whe	n	Dr	······································	
Describe Any	Physical Defect	<u> </u>				Righ	nt Or Left H	anded		
Kind of Work I Have You Be			li So	L		Have	You Filed A	in Application		
Here Before (Y	(es er Mo)			Dept		WM	Us Before (1	es or No)		
What is Your	Highest Skill			See Otl	ner Side	Can	you work	second shift?		
			Do N		Below This					
Interviewed By	/i			Date	•:			Hour:		
References Ch	ecked By:			Starting	Rate:		Starting Date:			
Occupation:				Dept	ı	·*·.		Clock No.:	· · · · · · · · · · · · · · · · · · ·	
				lor	rael					

P1 •	ase answer	r all que	etions.		APP	LICATION FO)R FA	ACTORY E	MPLOYMEN	T				
Ple	ase LA	ST NAME			FIRST MIDDLE					15	OCIAL S	ECURITY	NO.	
Pri		REET AND N	١٥.	CITY			ZONE	STATE			TELEPHONE			
	CASE OF EME	· P. ·	N AME			-	DORES	s .			RELAT	IONSHIP	TELE	PHONE
GENC	Y NOTIFY:		·										<u> </u>	
DATE	E OF BIRTH		AGE	SEX	☐ MAL	.E FEMAL	E	HEIGHT	FT.	ŧn	WE IGH	T		POUNDS
ARE			1 DOWED	□ SEP	ARATED	LENGTH C	F MAR	RIAGE	NUMBER OF	CHILDREN	AGE O	F EACH	CHILD	· · · · · · · · · · · · · · · · · · ·
	: SINGLI BAND OR WIE		IVORCED	:	. [OCCUPATION			EMPLOYER					
FAT	HER'S NAME					OCCUPATION			EMPLOYER					
MOTI	HER'S NAME	,	····			DCCUPATION			EMPLOYER					
	ECTIVE SERV			VETERAN		BRANCH:	<u> </u>		AIR FORCE	DATES OF	SERVIC			
	SSIFICATION CHARGE:	HONORAB		☐ YES	<u> </u>			ARINES C	FAIR	FROM			ro	<u> </u>
		DISHONO		PRESEN	T PHYSI	CAL CONDITION			POOR	ent medic	al date	OR F8	verse	
E	l	,	AME OF	8 C N O O	L		L	CATI	0 #	-	ATTI	ENDE		DID YOU GRADUATE?
C	GRADE SCHOOL			·										
Ť	HIGH SCHOOL							· · · · · · · · · · · · · · · · · · ·				†		
i 0 N	OTHER		·											· · · · · · · ·
	TOTAL	L					× 0 5 1					ــــــــــــــــــــــــــــــــــــــ		L
					Star	t with last		RIENCE and work b	ackwards					
NAVE	OF LAST EN	PLOYER				YER'S ADDRESS			E EMPLOYED	DAT	E LEFT			RATE OF PAY
KIND	OF WORK				SUPERVISOR				REASON FOR LEAVING				- 1	\$
NÁVE	OF PREVIOU	S EMPLOYE	R		EMPLOYER'S ADDRESS				E EMPLOYED	DA	E LEFT	·		PER RATE OF PAY
KIND	OF WORK		· · · · ·		SUPERVISOR				REASON FOR LEAVING				\$	
MANGE	OF EMPLOYE				<u> </u>				DATE EMPLOYED DATE LEFT			··		PER
					EMPLOYER'S ADDRESS								RATE OF PAY	
KIND	OF WORK				SUPERVISOR				REASON FOR LEAVING				- 1	\$ PER
HAVE	YOU EVER L	OST TIME	DUE TO A	PLANT II	JURY?	·	H	AVE YOU EV	ER BEEN COM	VICTED OF	A MAJOR	CRIME	7	
NI	O ES {EXPLAIN	1)				Ś		□ NO □ Y	ES (LIST VIOLA)		TIONS EX	CEPT M	INOR T	RAFFIC
DO Y	OU OWN YOUR	HOME?	YES	DO	YOU RE	NT1 YES		DAT	E AVAILABLE	FOR WORK	s	HIFT P	REFERE	NCE
	I agre depend true t	e to su s on my o the b	succes est of	aphy sfully my kno	sical pass	l examinati sing it. The ge and I und dismissal.	he in	iformatic	on furnis	hed on	this a	pplic	atio	n is
DATI	Ε			·		APPL I CAI	T'S	SIGNATURE						
INTE	ot write RVIEWER'S MENTS:	below thi	a line.											
DATE	RVIEWED		INTERVIEWED BY											

SUB-UNIT V: Interview

Assumption: Students have completely filled out their application form in an acceptable manner and are now ready for the job interview. Simulated office has been established for the interview.

Instructional Objectives: Students will be able to -

- 1. List the two objectives of an interview.
- 2. Demonstrate the proper approach to an interview.
- 3. Write the things to look for in a job.
- 4. Outline the things the employer looks for in a prospective employee.
- 5. Demonstrate the proper behavior during an interview.
- 6. List questions to ask the employer during the interview.
- 7. Write questions the employer would ask the employee.
- 8. Identify the "don't" of a job interview in writing.
- 9. Demonstrate correct procedures for closing an interview.
- 10. Evaluate his own performances during the interview.

Study Questions:

- 1. What are the two objectives of an interview?
- 2. What is the proper approach to an interview?
- 3. What should you look for in a job?
- 4. What are the things an employer looks for in a prospective employee?
- 5. How do you behave during an interview?
- 6. What questions should you ask the prospective employer?
- 7. What questions might the interviewer ask you?
- 8. What are some "don't" of a job interview?
- 9. How should you close an interview?
- 10. What were your strong and weak points in your interview?

Summary of Information:

- 1. Two objectives of an interview:
 - a. Get information
 - b. Give information
- 2. Approaching an interview:
 - a. Physical appearance: The interviewee should be well groomed (hair, clothes, shoes, all neat and clean).
 - b. Self-confidence.
 - c. Meeting receptionist: Introduce yourself and state your business.
 - d. Meeting employer:
 - (1) Introduce yourself, shake hands and have eye to eye contact with the other individual.

3. Behavior during an interview:

- a. Politeness
- b. Enthusiasm (interest)
- c. Honesty
- d. Answer questions completely.
- e. Ask all questions that you need to know.
- f. Be calm relaxed
- g. Be alert
- h. Demonstrate understanding of job.
- i. Ask for the job if you want it.
- j. Show a willingness to work.
- k. Be appreciative of the time and trouble the employer is spending.

4. Questions to ask the employer:

- a. Number of hours worked each day.
- b. Number of hours worked each week.
- c. Do you pay for overtime?
- d. Do you have company benefits?
- e. Is there a chance for a job with the company next summer?
- f. Advancement
- g. Working conditions
- h. Salary
- i. Job security
- j. Work location

5. Questions asked by employer:

- a. Would you work at night?
- b. What salary do you expect?
- c. Why do you want to work for our firm?
- d. Have you ever worked on a job similar to this before?
- e. How did you get along with your last employer?
- f. Would you be able to work on Sundays?
- g. Do you have any physical limitations that would keep you from working at this job?
- h. Do you smoke?
- i. What church do you attend?
- j. What are your hobbies?
- k. What kind of grades do you make in school?
- 1. How many days have you missed from school because of illness or other reasons this past year?
- m. What are your future plans?

6. Don'ts of a job interview:

- a. Don't smoke.
- b. Don't use profanity.
- c. Don't lie about qualifications.
- d. Don't wait until noon to start looking for a job.

- e. Don't keep the interviewer waiting.
- f. Don't criticize a previous employer.

7. Closing an interview:

- a. Be courteous and prompt.
- b. Thank him for time and shake his hand.
- c. Leave

SUB-UNIT VI: Simulated office should be established at this time and job interviews performed. Each student should act as the employer and the prospective employee both. As the students work in pairs, one student will be the employer while the other is the prospective employee.

NOTE: Applicant should not become discouraged if he doesn't get a job the first try.

SUB-UNIT VII: Self-Evaluation of Job Interview

Instructional Objective: Student will be able to objectively rate his performance on the "rating sheet" as: Excellent, Good, Fair or Poor.

		Excellent	Good	Fair	Poor
1.	Appearance of Hair				
2.	Appearance of Clothes				
3.	Appearance of Shoes				
4.	Self-confidence be- fore Interview				
5.	Self-confidence dur- ing Interview				
6.	Politeness				
7.	Ability to Intro- duce Yourself				
8.	Introduction of Your- self to Receptionist				
9.	Introduction of Your- self to Employer				
10.	Handshake				
11.	Eye to Eye Contact During Interview				,
12.	How well did I answer the questions asked by the employer?				
13.	How well did I ask questions about the job?				
14.	My approach to ask- ing for the job was:				
15.	How well did I express my appreciation to the employer?				
16.	I would rank my total performance in the interview as:				

APPENDIX N

READ EACH ITEM CAREFULLY AND CHECK QUICKLY THE CHOICE WHICH BEST EXPRESSES YOUR FEELINGS ABOUT THE STATEMENT. Whenever possible, let your own personal experience determine your answer. Do not spend much time on any item. If in doubt, check the choice which seems most nearly to express your present feeling about the statement. WORK RAPIDLY. Be sure to answer every item.

SA = Strongly ree

D = Disagree

A = Agree

SD = Strongly Disagree

U = Undecided

SA	A	U	D	SD		Statement
					1.	A man can learn more by working four years
					·	than by going to high school.
					2.	The more education a person has the better
	i					he is able to enjoy life.
					3.	Education helps a person to use his leisure
	ļ					time to better advantage.
					4.	
		 -			5.	man out of work. Only subjects like reading, writing, and
					٥.	arithmetic should be taught at public
						expense.
					6.	Education is no help in getting a job today.
					7.	
					8.	A high school education is worth all the time and effort it requires.
					9.	Our schools encourage an individual to think for himself.
					10.	There are too many fads and frills in modern education.
					11.	Education only makes a person discontented.
					12.	School training is of little help in meet- ing the problems of real life.
					13.	Education tends to make an individual less conceited.
					14.	Solution of the world's problems will come through education.
					15.	High School courses are too
	<u> </u>	 	 		1/	impractical.
					16.	A man is foolish to keep going to school if he can get a job.
					17.	Savings spent on education are wisely spent.
,		 			18.	An educated man can advance more rapidly
						in business and industry.
					19.	Parents should not be compelled to send their children to school.
					20.	Education is more valuable than most
<u> </u>		<u> </u>	<u></u>			people think.

SA	A	U	D	SD	Statement
	,				21. A high school education makes a man a better citizen.
					22. Public money spent on education during the past few years could have been used more wisely for other purposes.

Edward A. Rundquist and Raymond F. Sletto, PERSONALITY IN THE DEPRESSION, Institute of Child Welfare Monograph No. 12, University of Minnesota Press, Minneapolis. © Copyright 1936 University of Minnesota.

university of Minnesota

UNIVERSITY PRESS

2037 UNIVERSITY AVENUE S.E. • MINNEAPOLIS, MINNESOTA 85488

Office of the Director

October 20, 1969

Mr. Bobby R. Wright Graduate Assistant Department of Agricultural Education Oklahoma State University Stillwater, Oklahoma 74074

Dear Mr. Wright:

I have your letter of October 7 and the enclosed copy of the test you wanted to use. The test appears to be made up of sample items from the test I called the Minnesota Scale for the Survey of Opinions. You can find this test in Rundquist and Sletto's book which I'm sure is in your library. You may have our permission to use the test for your doctoral research testing provided a full citation is given on each copy of the test reproduced. It should include the following information:

Edward A. Rundquist and Raymond F. Sletto, PERSONALITY IN THE DEPRESSION, Institute of Child Welfare Monograph No. 12, University of Minnesota Press, Minneapolis. © Copyright 1936 University of Minnesota.

Sincerely.

(Mrs.) Carol Kromminga Assistant to the Director

CK/tw

APPENDIX O

READ EACH ITEM CAREFULLY AND CHECK QUICKLY THE CHOICE WHICH BEST EXPRESSES YOUR FEELINGS ABOUT THE STATEMENT. Whenever possible, let your own personal experience determine your answer. Do not spend much time on any item. If in doubt, check the choice which seems most nearly to express your present feeling about the statement. WORK RAPIDLY. Be sure to answer every item.

SA = Strongly Agree

D = Disagree

A = Agree

SD = Strongly Disagree

U = Undecided

SA	A	Ŭ	D	SD	Statement
					1. When providing for a family, the highest responsibility a man has is toward his job his earning a living.
					2. The right thing to do is to work hard, earn your own living and expect to have only wha you can pay for.
					3. A man should do all in his power to earn his own living.
			·		4. The first and most important duty of every man is to earn a living.
					5. Work is something to be avoided if possible.
					 Every man should train and develop himself for gainful employment.
					7. Working can be a pleasant experience.
					8. Work is drudgery.
			*.		 Today most jobs require very little education.
					10. Preparing for a productive place in the world of work seems to be the satisfactory thing to do.
					11. I would be satisfied working on a job that has no future to it.
				,	12. I take pride in any work that I do.
					13. I want a job with a good future to it, and I don't mind working to get it.
		,			14. I see no need for special preparation for any occupation.
					15. I get a real satisfaction out of working.
					16. It is a man's responsibility to work and make a living for his family.
					17. Honest work never hurt anyone,
			,		18. I can get along without a job.
					19. The advantages usually outweigh the dis- advantages in a good, steady job.
					20. Who needs to work? After all, there are other ways of being clothed and fed.

SA	A	U	D	SD		Statement
					21.	I admire a man who works on a steady job.
 -					22.	Practical experience is the best teacher.
				 		
				 	23.	I had rather work than go to high school.
	,					A man usually gets out of a job what he put into it.
					25.	Courses taken in high school have no signif- icant influence in preparing for a job.
					26.	Self-respect, social approval, reasonable pay and hours, and steady employment are the things a person should always look for in a job.
					27.	Going to school will never help me make any money.
					28.	In the United States, education is a must for securing a good paying job.
					29.	School has no real meaning to me and will
		.,				never help me get a good job.
					30.	Most good jobs require training and an education.
					31.	I look forward to the time when I have a good steady job.
		\Box			32.	I know that I should train myself for
					Ĺ.,	employment in something I am interested in.
					33.	Several years ago a good education was not a must for a good job - this is no longer true - the better jobs now require training and education.
					34.	There are many different types of employment I think I would be happy working in.
					35.	When I graduate from school, I want a job that will challenge my capabilities.
			_		36.	It is hard for me to see how some of the courses taken in high school could possibly help me prepare for a job.
					37.	I would rather have the responsibilities of a job than the responsibilities of school.
					38.	Most good jobs require some type of special training.
					39.	My main purpose for staying in school is to better prepare myself for gainful employment whereby I will be able to furnish a better living for myself and those I support.
					40.	I am willing to work hard in my school courses because I know this is part of the
					41.	training to qualify me for a good job. I believe there is a strong relationship between skills and salary.
					42.	I think studying and working hard in school will help me get a good job when I graduate.

SA	A	Ū	D	SD	Statement
					43. I will work only as long as I am doing things I like to do.
			•		44. It gives me a good feeling to know I am capable of earning money.



For the entire group of students in the specialized program, please indicate for the variables listed your estimate of their status at the beginning of the program and the relative degree of improvement observed at the conclusion of the program. Please indicate your choice with a circle.

	e ee	Estimate of Relative Degree of Improvement Observed at Conclusion of Program							
	Student Variables	Great Improvement	Slight Improvement	No Change	Slight Decline	Great Decline			
1.	Self-confidence	1	2	3	4	5			
2.	Participation in Class	1	2	3	4	5			
3.	Overall Interest in Class	1	2	3	4	5			
4.	Attitude Toward School	1	2	3	4	5			
5.	School Attendance	1	2	3	4	5			
6.	Attitude Toward the World of Work	1	2	3	4	5			

Bobby R. Wright

Candidate for the Degree of

Doctor of Education

Thesis: A COMPARISON OF EFFECTS OF A SPECIALLY DESIGNED PROGRAM IN VOCATIONAL AGRICULTURE UPON SELECTED CHARACTERISTICS OF AD-

VANTAGED AND DISADVANTAGED RURAL STUDENTS

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Mineral Wells, Texas, May 7, 1936, the son of Mr. and Mrs. L. L. Wright of Santo, Texas.

Education: Graduated from Santo High School, Santo, Texas, May, 1954; attended Tarleton State College, Stephenville, Texas, 1955-57 with a major in Agricultural Education; entered Sam Houston State College, Huntsville, Texas, January, 1960, received the Bachelor of Science degree, August 1962, and the Master of Education degree, August 1963, with majors in Agricultural Education; and entered Oklahoma State University in June, 1968, completed requirements for the Doctor of Education degree in Agricultural Education, July, 1970, with degree to be awarded May, 1971.

Professional Experience: Texas Highway Department, 1958-59; supervisor, Student Union, Sam Houston State College, June 1960-July 1963; undergraduate and graduate teaching assistant, Department of Agriculture, Sam Houston State College, 1962-1963; taught vocational agriculture two years at Northside Vernon, Texas, and three years at Olney, Texas; graduate teaching assistant, Department of Agricultural Engineering and Department of Agricultural Education, Oklahoma State University, September 1968-June 1970; part-time research assistant, Department of Agricultural Education, Oklahoma State University, October 1969-July 1970. Committee member, State Advisory Board, Texas Association Future Farmers of America and Texas Agriculture Teachers Association Convention; President, Oil Belt District, Texas Vocational Agriculture Teachers; Vice-President, Young County, Texas State Teachers Association; member TSTA, TVATA, NVATA, OVA, AVA and Phi Delta Kappa.