AN INVESTIGATION OF ATTITUDES AND OPINIONS HELD BY TEACHERS OF VOCATIONAL AGRICULTURE AND THEIR ADMINISTRATORS REGARDING SELECTED AREAS OF THE VOCATIONAL AGRICULTURE PROGRAM

By

HERMAN D. BROWN

Bachelor of Science
Texas A & M University
College Station, Texas
1953

Master of Education
Texas A & M University
College Station, Texas
1962

Submitted to the faculty of the Graduate School
of Oklahoma State University in partial
fulfillment of the requirements
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Thesis Approved:

Robert R. Price
Thesis Adviser

J. Wm E. Lusby

J. Herschel Feigman

Robert Totusek

J. J. Berger
Dean of the Graduate School

PREFACE

This investigation was inspired by a personal interest in the vocational agriculture program. There was a noticeable lack of communication between teachers of vocational agriculture and their administrators concerning concepts relative to the implementation of the vocational agriculture program. The role of the teacher of vocational agriculture has been the basis for extensive research; however, little attempt has been made to determine the degree of agreement or disagreement between the two groups investigated. It is hoped that this study through a clarification of some of the issues will effect a better understanding of the vocational agriculture program.

The writer expresses appreciation for the excellent opportunities afforded for resident graduate study experiences provided by the University. Sincere appreciation is expressed to Dr. Robert Price, Head of the Department of Agricultural Education and my major advisor, for his able counsel and encouragement.

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CHAPTER I

INTRODUCTION

During the past decade many changes have occurred in the field of education. One of the most significant catalysts that produced these changes was the firing of Sputnik by the Russians. The success of this surprise venture into space immediately created widespread concern and alarm in the educational circles. It directed the attention of administrators and teachers alike to a reappraisal of the educational program. Then too, the public, aroused from its apathy and inertia, instantly demanded a re-evaluation of the emphasis in the existing curriculum.

Initially the educational program in America had been determined not so much by the needs of society but by the cultural standards of the English system of education. However, subsequent periods of international tension and duress necessitated hasty revisions of the program to satisfy the demands of a dissatisfied and fearful society which saw in the cultural emphasis a danger in the face of competition of a scientifically-educated enemy. The resulting transfer of emphasis to highly technical and specialized scientific fields, while providing the public with a feeling of national security and individual safety, led to overspecialization, a situation equally as detrimental to society as the former had been. Technological schools such as

Massachusetts Institute of Technology soon found it necessary to introduce the humanities into their programs to compensate for this cultural loss.

In the process of these changes the academically capable student was given every opportunity to develop a scientific background necessary to compete in the space struggle. However, the less gifted students and those with vocational interests were temporarily forgotten. Because advanced technology eliminated much of the need for unskilled labor, many high school students, unprepared to compete in the labor market, were in effect denied opportunities for employment.

Significant changes, occuring simultaneously within the vocational field of agriculture, suggest the need of corresponding changes in educational concepts, if agriculture is to maintain its program in the total development of the Nation. Such changing concepts can be recognized as but reflections of the many changes which have occurred at an accelerated pace during the past decade. Some of the more dramatic changes include the following:

A. Science, technology and the use of mechanized equipment have transformed production agriculture.

B. Management skills and business ability have become prime requisites for farming success.

C. With the urbanization of the United States much of agriculture has moved off the farm, and new occupations in marketing, processing and servicing have continued to emerge.

D. The rate of change in technology involved in agricultural occupations has become so great that we can no longer depend upon pre-employment training alone, but must provide

continuing education throughout the worker's occupational career.

E. The nation has become a part of the international community. Agriculture, its problems and its future are increasingly dependent upon the influence by what may happen, even momentarily, throughout the world.

The magnitude of these changes gives added emphasis to the importance of providing the workers in agriculture with the very best possible educational opportunities not only to acquire the new technical skills, abilities and knowledge so essential to adequately supply the food and fiber needed by this nation, but also to acquire those skills and abilities needed by all persons as related to fundamental activities of life. Vocational and technical education is an integral part of the total educational program for secondary schools. It supplements, supports, and enhances the general academic program. Programs of both academic and vocational education are administered jointly by legally constituted State and local authorities who recognize and accept the responsibility to provide educational opportunities to youth and adults. Vocational agriculture is an essential part of the total school program when taught in the secondary schools. It can be recognized as an integral part of a well-rounded program of studies aimed at developing competent citizens who realize that the American citizen should be competent economically, socially, emotionally, intellectually, physically and, most important of all, civically. In accepting the premise that vocational agriculture is but one segment of the total comprehensive school program, school administrators and teachers of vocational agriculture must accept responsibility for the

implementation of a program as determined by community needs, desires, and interests. Community needs often become overshadowed with personal desires, misunderstandings, and/or a lack of knowledge about vocational education. When valid community needs are given priority, certain desires, interests and needs as may be felt by school personnel must be subordinate to the welfare of the community and its individual citizenry. Problems arising from such misunderstandings often result in conflicts which may deprive the school from receiving administrative leadership necessary to fulfill the educational needs of the community.

Education and its concepts have changed through the years with the advancement of knowledge surrounding life and society. President Johnson has referred to our era as 'The Great Society' but in the final analysis, individuals within our society determine and implement modifications leading to such restructuring of traditional programs and development of new programs which may be necessary to reach desired goals and objectives.

Statement of the Problem

Public schools are charged with the primary responsibility for providing learning experiences for youth and adults in their respective communities. The success of these educational endeavors is dependent upon the foresight of the educational leaders and their ability to organize, implement and maintain comprehensive learning experiences. To implement such a program requires the orientation of all faculty members toward common accepted goals and objectives. In order to maintain a vital vocational agriculture program school administrators and teachers of vocational agriculture must have a knowledge

of the problems facing agriculture, be cognizant of trends in agricultural development, and be widely acquainted with policies regulating vocational education at both the state and national level. At the local level both parties must recognize the existing problems and conditions and initiate programs that will tend to alleviate undesirable conditions which may presently exist. Unfortunately, administrators and teachers do not always view changes or modifications in the same perspective. Such apperceptive differences may cause conflict in the establishment of goals and objectives for the community, its people and its agriculture.

The problem for investigation in this study was, "Do two hundred fifty vocational agriculture teachers and their administrators in secondary public schools in Texas differ in their attitude and opinion regarding the nature and extent of desirable future programs of vocational agriculture?" Specifically, the central problem of the investigation was to determine if significant differences exist between attitudes and opinions held by teachers of vocational agriculture and their respective school administrators.

Importance of the Study

Additional research in the area of opinions toward the vocational agriculture program is needed for at least four reasons. First, previous studies have not attempted to describe vocational agriculture within the school system from opinions of both administrators and teachers of vocational agriculture. Previous studies have been limited in scope and centered around the opinions of superintendents and principals in relationship to individual areas, such as shows and

contests, teaching competencies, guidance, policy formulation, adult education in agriculture, and other individual areas. The researcher has been unable to find studies that attempted to identify some of the major opinions toward the total vocational agriculture program as expressed by both teachers and administrators. The information gained from this study could be useful to school administrators, teacher trainers, area supervisors, and teachers of vocational agriculture who have the responsibility of influencing public opinions and attitudes toward the vocational agriculture program. It is reasonable to assume that any valid and reliable information associated with school and community support will be beneficial. Further, the information derived from this study may be of significant value for future agricultural education studies in public relations, pre-service education and in-service education.

Finally, this study should provide a basis for insight into pre-service training for agricultural education curriculum changes. The basis for change is the knowledge that when a difficulty is overcome there will be improved results. This study was also attempted in order to determine, by use of appropriate statistical methods, the significant differences of opinions by administrators and teachers of vocational agriculture toward selected statements concerning modified expansion of the existing program.

Scope of the Study

The scope of this study was limited to a random sampling of responses from teachers of vocational agriculture in the state of Texas approximating twenty-five per cent of the total population of vocational

agriculture teachers. The scope was also limited to those administrators of the randomly-selected teachers in order that a degree of homogeneity could be maintained throughout the research project. While the state varies greatly from north to south and east to west in socio-economic conditions, population density, and types of farming, as well as in many other areas, it is believed a random sampling with nominal returns will present conclusive data relative to the attitudes and opinions about the vocational agriculture program.

Limitations of the Study

While this study was undertaken for the purpose of collecting and analyzing data in an effort to determine whether or not teachers of vocational agriculture and public school administrators viewed selected statements in the same perspective, it was not proposed that his research attempt would establish any complete and final answer to the causative factors.

It is assumed that the statements selected for this investigation are representative questions concerning the vocational agriculture program but may not be the only ones pertinent to the evaluation of the present vocational agriculture program.

Definition of Terms

The term "attitude" refers to a state of mental and emotional readiness on the part of professionals to react to any educational significant situation in a manner that gives first place to the interests of society and the profession and indicates ability and desire to cooperate with others toward the solution of the problem.

The term "opinion", for the purpose of this study, is defined as a belief that has not been conclusively proved and lacks the weight of carefully reasoned judgment or certainty of conviction.

The terms "agriculture" and "farming" are not synonymous. Farming, in its modern context, may be classified as "production agriculture". Agriculture and agricultural occupations may be categorized as production, marketing, processing and service occupations.

The term "Agri-Business" or "agricultural businesses" refers to those operating units that support production agriculture in such ways as marketing, processing, and servicing.

The phrase "part-time training in Agri-Business", for the purpose of this study, shall denote students who seek skills in farm-related occupations off-the-farm through a series of organized work-study experiences.

The term "school", for the purpose of this study, is defined as a public institution offering courses in secondary education and specifically maintaining a reimbursed program of instruction in vocational agriculture.

The term "significant factor" refers to those factors which, after an appropriate statistical treatment of data, were found to discriminate significantly at the five per cent level, the level of significance chosen for this study.

CHAPTER II

REVIEW OF LITERATURE

Roles of public school administrators and teachers of vocational agriculture have changed considerably during the past decade. Particularly is this true with regard to recognized responsibilities for assisting youth and adults in meeting the work challenge caused by scientific and technological advances in society. The value and necessity of placing increased emphasis upon the education of youth and adults is recognized generally in today's society. A great many educational needs of youth and adults can best by met through accelerated programs in vocational education provided by secondary public schools.

A recent editorial in The Temple Daily Telegram stated, "The U. S. Office of Education found a serious fault with vocational high schools in the country. Instead of a step to the future, they are a bridge to a past no longer useful. They are teaching jobs no longer in demand and not teaching those that are wanted."[1] This statement is indicative of the need for school personnel to evaluate their present vocational programs for possible changes and to solidify differences of opinion towards common goals and objectives.

The current image of vocational agriculture appears to be one of

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[1]The Temple Daily Telegram, April 19, 1965. p. 4.

a program which leads only one direction--the farm. Krebs believes it is this image which has caused some students who were interested in the program to seek other programs as a more flexible preparation for life.[2]

Kublesky and Buck[3] studied the role of the teacher-student relationships in sixty-six Pennsylvania school communities. A total of 202 teacher educators in eighteen state-supported colleges were asked to give their conceptions of the role of the teacher. The study revealed that there was a lack of consensus as to the role of the teachers by teacher educators, teachers and school communities. A greater consensus prevailed as to the extra-class definition of the teacher's role than was true for his in-class role. Additionally, it was found that the teacher's definition of his role was a compromise lying somewhere between definitions given by teacher educators and school communities. The authors concluded that role can only be defined within several specifications. Those given were as follows: with whom the teacher is interacting, who is defining the role, and in what situational context the action is taking place.

Three professors, Gross, Mason, and McEachern,[4] conducted a comprehensive study in educational sociology in which they analyzed the role of the superintendency position in Massachusetts. The sample for

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[2]A. H. Krebs, "New Image of Vocational Agriculture Needed", Agricultural Education Magazine, XXXIII (April, 1961) pp. 119-20.

[3]William P. Kublesky and Roy C. Buck, "The Teacher-Student Relationship", Department of Agricultural Economics and Rural Sociology, Pennsylvania State University, 1960 (Mimeograph).

[4]Neal Gross, Ward Mason and Alexander McEachern, Explorations in Role Analysis, New York, 1958, p. 17.

the study comprised 105 superintendents and 508 school board members, each of whom was interviewed. A series of role defining items was employed in recording the expectations and behavior for the superintendency role in terms of the perceptions of superintendents and members of boards of education. Responses were in terms of degrees of agreement or disagreement with role defining items presented during the interview.

Items for superintendents were developed and presented in a language normally expected to by understood by those performing this role. However, realizing the diversity likely to exist in the level of education, background and experience of board members, the researchers designed items which could be understood by most laymen. Both sets of role defining items were so constructed as to be parallel in content to enable data for the two groups to be compared.

Elements studied concerning the superintendent's role included attributes, performance, expectations, division of labor, aspirations, job satisfaction, and initiative. Ideal and actual relationships between boards of education and superintendents were analyzed. It was found that there was a singificant degree of difference (lack of consensus) between the responses of the two groups to most of the role defining items used in the interview.

A program in role research methods for the teacher of vocational agriculture designed for students in agricultural education at North Carolina State College has been in operation for several years.[5] This

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[5]Selz C. Mayo, "Teaching Methods of Community Research to Non-Sociology Majors," Rural Sociology, XXIII, No. 1, March, 1958, pp. 68-71.

program is sponsored jointly by the departments of agricultural education and rural sociology. The purpose of this special program is to teach students in agricultural education community research methods in relation to a specific status, so as to enhance the role performance when filling that position.

Six roles peculiar to the position of the teacher of vocational agriculture have been used in this program offering. These roles were developed through personal observation and were constructed largely upon the basis of what the teacher of vocational agriculture actually does. Roles isolated for this purpose were as follows:

1. The role of the teacher of all-day high school boys.
2. The role of the teacher of adults who are established in farming.
3. The role of the group organizer and group sustainer.
4. The role of the interpreter of community change.
5. The role of the technician.
6. The role of a member of agricultural workers' council and other county planning groups.

This particular program was designed to provide prospective teachers with an understanding of the roles occupied by the teacher of vocational agriculture.

In a later report by Mayo[6] concerning the teacher's role in directing programs of vocational agriculture, specifically Future

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[6]Selz C. Mayo, "An Analysis of the Organizational Role of the Teacher of Vocational Agriculture", Rural Sociology, XXV, No. 3, September, 1960, p. 337.

Farmers of America activities, the author submitted that there was a lack of consensus among teachers as to the central purpose and function of the Future Farmers of America organization in the program of vocational agriculture.

This discrepancy was discovered in a study which included some twenty-six Future Farmers of America chapters in North Carolina. However, Mayo stated:

> Lack of consensus is not, however, confined to teachers themselves. This conclusion is substantiated by the data in the Southern Regional Study. In that study, six groups were asked to respond to a question relating to the place of FFA in a program of vo-ag. Three lay groups and three professional groups were included...It is of considerable interest that there was a high degree of consensus among the professional groups, but there was a highly significant (statistically) difference between the responses of the two groups. A smaller percentage of the lay group than of the professional group considered FFA an integral part of a vo-ag program.[7]

A greater degree of consensus was realized in another area of the same study, that of adult farmer education. While there was not complete agreement, both lay and professional groups felt that vocational agriculture should provide classes for adult farmers.

Mayo made a plea for teachers of vocational agriculture to give more consideration to relationships with organized groups within the local community by stating:

> It is contended here that such organizations are increasingly being perceived by teachers as a part of the work system potential in their communities. This perception is still in the embryonic stage and its full potential is grasped by a very small proportion of the teachers.[8]

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[7] Ibid., p. 338.

[8] Ibid., p. 343.

A fundamental conflict in the role of the teacher of vocational agriculture was cited to be that existing between the use of teachers' class time and his out-of-school time. Philosophically it was purported that a teacher should spend as much time on the farm with individual students as possible; however, in reality, programs of vocational agriculture were so organized that the majority of the available time was of necessity spent in organized classroom instruction.

A study by Brutner[9] appeared to be very comprehensive concerning the role of the teacher of vocational agriculture. Research methodology employed in the study was primarily descriptive. All data were collected by personal interview. Interviews were designed to secure open-end responses to reveal background information and teacher perceptions as to specific roles played by the teacher of vocational agriculture.

This study was conducted through the use of a special panel of five teachers of vocational agriculture in South Carolina. These teachers were between the ages of thirty-five and forty-five years, thus meeting a predetermined criterion established by Brutner in organizing the study. Initially, the state supervisor in agricultural education was asked to designate fifteen teachers within this age group. The author arbitrarily selected the first five of the teachers named to serve as a panel in defining roles.

All interviews were tape-recorded. The interview schedule was

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[9]Franklin Alan Brutner, "The 'Vo-Ag' Teacher: An Inquiry Into the Status and Role of an Emergent Profession," (Unpublished Ph.D. Dissertation, University of North Carolina, 1958).

characterized by questions in the following named categories: vital statistics, career decisions, first experiences, establishment and present situation, tensions involved in role, and changes in nature of work and retirement.

Responses by the panel of five teachers to questions in the seven categories were used by Brutner to formulate the role of the teacher of vocational agriculture. Roles were indicated in a very generalized manner, for as the title of the study indicates, this was an inquiry into the role of the teacher of vocational agriculture. The absence of absolute measures in summarizing responses given the by five panel members makes it apparent that the accuracy in the interpretation of the data by the researcher would be imperative.

Nix[10] conducted a detailed analytical and descriptive study of the roles and value orientation of the teaching profession for teachers of vocational agriculture. His descriptions and analyses included the general value orientations and structural stresses found in roles performed by the teacher of vocational agriculture.

Twenty-seven Louisiana teachers of vocational agriculture from three selected parishes constituted the sample interviewed by Nix. He found that the value orientation of teachers included in the study was somewhat unique. He concluded that strain and stresses within the roles of this profession are best described as role superfluity. Role frustration was cited to be experienced by teachers studied. Nix felt

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[10]Harold Lyle Nix, "A Sociological Analysis of the Roles and Value Orientation of an Occupation: Vocational Agriculture Teaching", (Unpublished Ph.D. Dissertation, Louisiana State University, 1960).

that the greatest single cause of this frustration could be equated with the decline in farm population.

Eleven roles common the teacher of vocational agriculture were listed by Nix. These included:

1. Role as a member of the high school faculty.
2. Role with high school students of vocational agriculture.
3. Role in young and adult farmer education.
4. Role as an agricultural technician.
5. Role as F.F.A. advisor.
6. Role as an organizer and sustainer of farm organizations.
7. Role as a rural and agricultural leader.
8. Role as a school maintenance man.
9. Role as an administrator and supervisor of the local program of vocational agriculture.
10. Role as a public relations man.
11. Role as a member of vocational agriculture organization.

The teacher's membership in a profession embracing two bureaucratic organizations, and the resulting dual functions of his position were cited as factors giving rise to role conflict. Nix found that the lack of certain technical skills was the greatest source of role inadequacy indicated by teachers studied. Despite these considerations it was found that teachers enjoyed an above average satisfaction in the fulfillment of their role as a teacher of vocational agriculture. Teachers were found to be changing toward an increasing educational orientation, perceiving broadened program objectives, developing localistic orientations, rejecting the service role, and integrating their composite role into the public school system.

In a study conducted by Twyman[11] it was determined that a number of significant disparities existed among teachers, parents, school officials, and pupils over teacher role cognitions. Among the four positions examined, pupils were found to be the most dissident, with teachers and school officials standing closest together in terms of role elements held. In general, most of the disagreement among positions centered on behaviors having to do with teacher self-indulgence, maintenance of order, and community participation.

Many of the findings reported in this study suggest that parents are uninformed as to much that goes on in the classroom or that they pick up misinformation from their children. It was concluded in this study that the incidence of wide-spread disagreement on the role of the teacher suggests that the school is undergoing rapid change or that persistent incongruencies may exist in the school as a stable social institution. Whichever interpretation is favored, it is implied that teachers, parents, pupils, and school officials alike must suffer in considerable part from lack of agreement over such issues as maintenance of order, deviancy of control, and community participation by teachers.

A study conducted by Schaal[12] concerning the attitudes of school board members toward the vocational agriculture program revealed that

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[11] J. Paschal Twyman and Bruce J. Biddle, "Role Conflict of Public School Teachers", (Published as a separate and in The Journal of Psychology, 1963, 55, 183-198) pp. 196-98.

[12] Gerhardt A. Schall, "A Survey of School Board Members' Attitudes Toward Vocational Agriculture and Their General Knowledge Concerning Vocational Agriculture Problems in Their Schools", (Unpublished Master's Thesis, South Dakota State College, Brookings, South Dakota, 1958).

eighty per cent of the respondents favored the separation of shop and classroom facilities from other vocational departments in the school. His findings also indicated a large per cent of the board members have not been properly informed of the needs for farm mechanics shops of adequate size for most effective training programs. Two-thirds of the members had never received an invitation to visit supervised farming projects. The latter statement would imply the need for a public relations program initiated by the teacher of vocational agriculture in order to keep the community informed of its agricultural program.

Wingen[13] conducted a further survey of parents concerning the value of the program of instruction in vocational agriculture as related to the needs of their boys. It was determined that parents are vitally interested in vocational agriculture and believe the instructors are doing a highly acceptable job in training the farmers of tomorrow. Nearly 100% of the respondents desired to have their boys active in the FFA. Summer trips were favored by eighty-five per cent of the respondents. Forty-one per cent desired more instructor help for their sons in supervised farm training programs.

Bail[14] conducted a study concerning the role of the FFA in vocational agriculture. Both teachers and students were interviewed in this study. Attitudes of teachers and students were significantly

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[13] Ernest N. Wingen, "A Survey of the Attitudes of Parents Toward Vocational Agriculture in South Dakota", Agricultural Education Department, South Dakota State College (Brookings, South Dakota, 1957).

[14] Joe Paul Bail, "Attitude of Teachers and Students to the Role of the Future Farmers of America Organization in Vocational Agriculture", Unpublished Doctoral Dissertation, Michigan State University, East Lansing, Michigan, 1959.

different on twenty-seven of the fifty-four concepts tested. Student attitude, in general, was more favorable than teacher attitude toward concepts which would liberalize membership requirements, permit more local autonomy, limit adviser control, and provide for more student participation and student responsibility in the organization on the local, state, and national level. Teacher and student attitudes were not significantly different on those concepts relating to activities, time and frequency of meetings, and methods of conducting meetings.

A study was conducted by Webb[15] to ascertain if sufficient agreement among the Missouri school administrators warranted reconsideration of the organization structure of the program and teacher preparation in vocational agriculture. Some of the findings of his study are as follows: (1) While it is apparent that training in vocational agriculture is believed to be vocational education, disagreement existed concerning the current administrative interpretation of the Smith-Hughes Act, which provides only for farm training. Responses indicated that agricultural education should have the responsibility for training students who enter occupations related to farming. (2) Administrators consider high school students to be the first responsibility of teachers in vocational agriculture. (3) The development of rural leadership is regarded as a major function of Future Farmers of America. However, some of FFA activities are believed to duplicate certain aspects of the general education program. (4) Some teachers of

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[15]Earl S. Webb, "Opinions of School Administrators Concerning Selected Aspects of the Program of Vocational Agriculture in Missouri", (Unpublished doctoral dissertation, University of Missouri, 1959).

vocational agriculture have not utilized their time during summer months to best advantage of the program, but summer programs of vocational agriculture seem a necessary part of the instruction. (5) The work load of teachers is determined by administrators in light of the number of classes taught daily and the number of students enrolled in each class.

A. W. Tenny[16] of the Department of Health, Education and Welfare in his article to the American Vocational Journal stated that if he were to select one work that would best describe what is happening in rural America today, it would be the word "change". Tenny elaborated further by saying that small school districts should reorganize into larger units which would provide for specialized multiple teacher departments and the development of area programs. It appears that an increase in farm size is having a direct influence on all vocational programs.

Summary of Reviewed Literature

A review of research literature did not reveal studies conducted in the general area of teacher-administrator attitude and opinion towards selected areas of the vocational agriculture program. A few studies in role concepts, which appear to be applicable to this study, did reveal a significant degree of difference between the responses of groups studied.

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[16]A. W. Tenny, "Agricultural Education for a Changing Rural America", American Vocational Journal, (Reprint) March, 1962, pp. 4-5f.

To the extent that the samplings were representative and the facts and opinions were accurate in the studies reviewed, the following conclusions seem justified: (1) sociologists have endeavored to clarify the role of the teacher of vocational agriculture more so than researchers in the area of agricultural education; (2) agricultural education students need training in community research methods so as to enhance the role performance when filling a community position; (3) teachers have a lower degree of consensus than lay groups as to their role in selected areas of the vocational agriculture program; (4) teachers of vocational agriculture are frustrated as to their role in the community, a fact which is attributable to the decline in farm population; and (5) teachers enjoy an above average satisfaction in the fulfillment of their role as a teacher of vocational agriculture. The review of literature also revealed that vocational education must change or modify its objectives to cope with current and future problems.

CHAPTER III

DESIGN OF THE STUDY

The purpose of this study is to present the general conditions under which the present research was done and the procedures employed. A complete listing of hypotheses tested has been made, the subject groups described, and the methods used in obtaining data presented.

Hypotheses Tested

The hypotheses tested in this study were formulated as null hypotheses.

A. Hypotheses regarding adult and young farmer education were formulated as follows:

Significant differences do not exist between the attitudes and opinions of school administrators and teachers of vocational agriculture regarding the following items:

1. Need for an increase in adult agricultural education program.
2. Method of serving adult groups most effectively.
3. Teaching effectiveness of high school students through an active program of instruction for out-of-school farmers.
4. Meeting adult educational needs by agencies other than the public school.

5. Degree of influence over out-of-school farmers.
6. Maintaining an active adult program through personal services.

B. Hypotheses regarding the Future Farmers of America organization were formulated as follows:

Significant differences do not exist between the attitudes and opinions of school administrators and teachers of vocational agriculture regarding the following items:

1. Changing the organization name of the Future Farmers of America.
2. Mandatory membership requirements in the Future Farmers of America.
3. Development of unacceptable self-centered attitudes through active particpation in the Future Farmers of America.
4. Activities of the FFA too juvenile for maturing young men at the upper high school level.
5. Expanding the FFA program to include girls.
6. Dual membership in the FFA and 4-H Club.

C. Hypotheses regarding the administration of the vocational agriculture program were formulated as follows:

Significant differences do not exist between the attitudes and opinions of school administrators and teachers of vocational agriculture regarding the following items:

1. Teaching courses in addition to vocational agriculture in schools with low enrollments in vocational agriculture.

2. Employing teacher of vocational agriculture for twelve months to maintain active community program.
3. Enrolling students with high academic ability in vocational agriculture.
4. Beginning vocational agriculture at the eighth grade level.
5. Expanding the vocational agriculture program into areas normally taught by other vocational teachers.
6. Establishing area vocational schools to satisfy needs of all students.

D. Hypotheses regarding the curriculum and instructional program were formulated as follows:

Significant differences do not exist between the attitudes and opinions of school administrators and teachers of vocational agriculture regarding the following:

1. Teaching basic principles and theories rather than developing specific occupational skills.
2. Adopting a common core of subject matter required by the state.
3. Teaching general science and/or biology in addition to agriculture.
4. Influencing career choices through involvement in fairs, shows, and contests.
5. Expanding the curriculum to include occupational training in related fields and non-farm agriculture.
6. Increasing agricultural mechanics to include a minimum of 50% of the instructional program.

E. Hypotheses regarding facilities and equipment were formulated as follows:

Significant differences do not exist between the attitudes and opinions of school administrators and teachers of vocational agriculture regarding the following:

1. Standardizing teaching facilities and equipment by the state.
2. Sharing shop equipment with other vocational teachers to secure maximum utilization.
3. Relationship between adequate facilities and equipment, and the quality of the instructional program.
4. Teaching effectiveness in agriculture with less equipment than other vocational subjects.
5. Teacher failure to maintain shop equipment contributed to inadequate pre-service training.
6. Maintaining shop facilities and equipment separately from other vocational programs to insure effective instructional programs.

F. Hypotheses regarding the supervised farm training program were formulated as follows:

Significant differences do not exist between the attitudes and opinions of school administrators and teachers of vocational agriculture regarding the following:

1. Recognizing practical principles of economics and values through producing champion show animals.

2. Gaining valuable work experiences through part-time training and employment in agricultural businesses.
3. Requiring all students to have a supervised farm training program.
4. Participating work experiences in agricultural businesses and supervised farm training programs as options to students in agriculture.
5. Supervising on-the-job training in agricultural businesses in addition to supervision of the supervised farm training program.
6. Encouraging students with home shop facilities to develop agricultural shop projects in lieu of production projects.

Procedure

The investigator accomplished the following steps in the process of developing the dissertation problem, collecting and analyzing the data, and writing the dissertation:

A. Reviewed literature pertaining to this study in vocational agricultural education and related areas.
B. Consulted authorities concerning trends in future program planning in vocational education.
C. Selected six general areas in vocational agriculture as a basis for determining verbally expressed reactions to selected statements. Areas were selected on the basis of recommendations from George Hurt, Director of Agricultural Education, Austin, Texas, members of the Agricultural

Education staff at Oklahoma State University, and review of related literature. These areas were:

1. Future Farmers of America Organization
2. Young and Adult Farm Programs
3. Supervised Farm Training Programs
4. Facilities and Equipment
5. Curriculum and Program of Instruction
6. Administration of the Vocational Agriculture Program

D. Prepared a list of fifty-seven statements as a pre-test and submitted it to a jury of educators in the field of agriculture.

D. Selected jury of fifteen educators from Texas and Oklahoma approved by his major advisor. Members of the Agricultural Education Departments at Oklahoma State University and Texas A & M University provided a list of educators in the field of agriculture from which the researcher selected fifteen jury members.

F. Mailed pre-test statements to jury members seeking their opinions as to the pertinence of the statements, clarity and brevity, and general understanding of the statements.

G. Selected a list of thirty-six statements from the pre-test comments of the jury members. Six statements were selected for each of the six general areas surveyed based upon the comments of jury members.

H. The Membership Directory of Vocational Agriculture Teachers in Texas for 1965 was used for the random selection of teachers and their administrators. From each of the ten

supervisory areas, twenty-five teachers of vocational agriculture were selected from a drawing of numbers corresponding to the alphabetical listing of teachers. A questionnaire was mailed to each teacher selected and to his administrator with a self-addressed, stamped envelope for return to the researcher. A cover letter from Mr. George Hurt, Director of Agricultural Education, Austin, Texas, accompanied each questionnaire stating the significance of the study.

I. Questionnaires were mailed to teachers and administrators from Cameron, Texas, on April 10, 1965.

J. Tabulation of results began on May 20, 1965, with returns from 182 administrators and 180 teachers of vocational agriculture or 72% of the mailed questionnaires. Because of the larger-than-expected number of returns, it was decided that the number 180 would be used for computation purposes to keep the ends the same. Responses received after May 20, 1965, are not included in this study.

K. Data were classified, and an analysis of the data made using the Mann-Whitney U Test.[17] Facilities of the Oklahoma State University Statistical Laboratory were used in the computation analysis of data.

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[17]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences, (New York, 1956), p. 116. "When at least ordinal measurement has been achieved, the Mann-Whitney U test may be used to test whether two independent groups have been drawn from the same population. This is one of the most powerful of the nonparametric tests, and it is a most useful alternative to the parametric t test when the researcher wishes to avoid the t test's assumption when the measurement in the research is weaker than interval scaling."

L. The null hypothesis was tested by the investigator's using the data pertaining to each of the selected statements to identify significant differences between responses of vocational agriculture teachers and administrators. The level of significance required for the rejection of the null hypotheses was set at the five per cent level.[18]

For each statement in the questionnaire, teachers and administrators responded to a rank-order scale. Each scale ran from "strongly agree," through "agree," to "undecided," then to "disagree," through "strongly disagree." For computational purposes a five-point scale was used and graduated downward from the "strongly agree" to "strongly disagree." Respondents were instructed to circle the letter corresponding to the statement that most nearly represented their opinion.

Organization of the Dissertation

This dissertation is composed of five chapters and an appendix. Chapter I is the introductory chapter stating the problem and its purpose, importance of the study, scope and limitations of the study, and definition of terms. Chapter II is entitled "Review of

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[18]Henry E. Garrett, Statistics in Psychology and Education. (New York, 1958) p. 213: "Experimenters have found the null hypothesis a useful tool in testing the reliability of differences. In its simplest form, this asserts that there is not true difference between two population means, and that the difference found between sample means is, therefore, accidental and unimportant. The null hypothesis is akin to the legal principle that a man is innocent until he is proved guilty. It constitutes a challenge; and the function of an experiment is to give the facts a chance to refute (or fail to refute) this challenge. . . . If our null hypothesis is untenable it must be rejected. And in discarding (refuting) the null hypothesis, what we are saying is that differences. . . cannot be fully explained as temporary or occasional."

Literature". In this chapter the researcher attempted to determine whether or not similar or identical studies had been conducted. Also, reviewed literature provided a basis, in some instances, for devising a suitable questionnaire to be used in the study. Chapter III concerns the design of the study and includes the hypotheses tested and the procedure for collecting and analyzing the data. Chapter IV follows the general procedure of presenting data pertaining to each selected statement in a table and analyzing the findings concerning the statement. Thirty-six tables are used to present the findings of this study. Chapter V is the concluding and summarizing chapter.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Data presented in this chapter were obtained from 250 randomly selected teachers of vocational agriculture and their administrators throughout the state of Texas.

After data were secured through the previously outlined procedures and techniques, data were tabulated and analyzed by an appropriate statistical technique (Mann-Whitney U test) in order to determine the nature and extent of findings. The z-scores were obtained from the U statistics through the conversion process of substitution in formula (6.8).[19]

In the tabular presentation of data, two asterisks (**) immediately after statistical values indicate a statistical difference which is significant at one per cent level. One asterisk (*) appearing after statistical values is indicative of a significant difference at the five per cent level. The omission of an asterisk indicates that the difference, if any, was possibly due to chance and will be designated by the words, "not significant".

As previously stated, the five percent level of significance was selected for the study. When statistical treatment confirmed that

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[19] Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences, (New York, 1956), p. 123.

differences did not exist at the five per cent level of significance, the null hypothesis relative to the selected statements was not rejected.

This chapter represents the investigator's endeavor to examine critically each statement selected for this study. The findings concerning each statement are presented in a table with an accompanying analysis.

Young and Adult Farmer Educational Programs

It is a generally accepted premise that teachers have a responsibility to out-of-school farmers by providing educational learning experiences while recognizing primordial responsibility to the all-day students. To provide greater assistance to the adult program, teachers in Texas are being strongly encouraged to organize young farmer chapters since the needs and interests of young men between the ages of eighteen and thirty-two differ from the needs and interests of older farmers. The major question of concern is "How can teachers most effectively serve both young and adult farmers?"

Increase in adult agricultural education programs. The data presented in Table I reveals that teachers of vocational agriculture generally disagree with the statement as to whether or not an increase in adult agricultural education is justifiable despite a decreasing proportion of the population engaged in production agriculture, while administrators agreed with the statement. Responses from the administrators are not in accordance with the views of the teachers. It will be noted that thirty-nine of the teachers indicated agreement with the statement as compared to ninety-two administrators. The

difference in responses produce a z-score of 6.60 which is significant at the five per cent level. Therefore, the null hypothesis is rejected.

Role assumption in coordinating educational classes. The data presented in Table II show that teachers and administrators view the role of the vocational agriculture teacher as a program coordinator for adult meetings instead of as an organizer of educational classes for young and adult farmers. It is a generally accepted fact that agriculture has become highly specialized; therefore, teachers often do not feel competent to teach in all areas of production agriculture. Private enterprise and educational institutions have specialists in each of the many phases of agriculture such as irrigation, beef management, agricultural mechanics, record keeping, and other areas. Many teachers feel inadequate in teaching highly specialized and technical subject matter and, consequently, they are expressing more dependence upon specialists.

The distribution of responses from the two groups reveals a wide variation of opinion. It will be noted that forty-two administrators were undecided as to the role that should be assumed by the teacher in adult programs. While there is a fluctuation in responses, a z-score of 1.36 is not significant at the five per cent level. Therefore, the null hypothesis may be considered tenable.

Increased teaching effectiveness with high school students through an active adult program. It has been assumed through the years by teacher trainers and supervisors that active adult programs reflected an improvement in teacher effectiveness with high school students. The basis for this assumption concerned a relationship between the

TABLE I

RESPONSES CONCERNING JUSTIFICATION FOR AN INCREASE IN ADULT AGRICULTURAL EDUCATION PROGRAMS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	4	35	12	82	47	180
Administrators	17	75	20	50	18	180

z-score 6.60**

TABLE II

RESPONSES CONCERNING THE VALUE OF TEACHER ROLE ASSUMPTION IN COORDINATING EDUCATIONAL CLASSES FOR YOUNG AND ADULT FARMERS AS CONTRASTED WITH FORMALLY ORGANIZED CLASSES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	21	84	16	43	16	180
Administrators	16	64	42	49	9	180

z-score 1.36 (not significant)

practical application of farm practices and the theoretical approach provided in the classroom.

The responses in Table III do not fully substantiate the above assumption. Although a majority of the teachers expressed agreement with the statement, a total of forty-four teachers either disagreed or strongly disagreed with the statement. That administrators indicated a lesser degree of concurrence than teachers resulted in a z-score of 2.90 which is significant at the five per cent level. Therefore, the null hypothesis is rejected.

The investigator feels that this significant difference should not be taken to mean that teachers and administrators do not favor an adult educational program. A more plausible explanation of this finding might be that a decrease in farm population could imply a corresponding decrease in the need for adult education programs. It further seems plausible that administrators who have had little or no formal training in the total agricultural program do not fully recognize many facets of the relationship between in-school and out-of-school programs in agriculture.

Meeting educational needs of adults through agencies other than public schools. The responses from teachers and administrators as exhibited in Table IV reveal an approximately even distribution between agreement and disagreement. A possible explanation for the difference in reaction to the statement is the proximity of some schools to large cities. This situation may provide resource personnel from governmental agencies such as USDA, SCS, ASC, and private enterprise such as implement dealers, distributors, and other agencies. A greater number of administrators believe that agencies other than the school

TABLE III

RESPONSES CONCERNING INCREASED TEACHER EFFECTIVENESS WITH HIGH SCHOOL STUDENTS AS ASCRIBED TO MAINTENANCE OF AN ACTIVE PROGRAM OF INSTRUCTION FOR OUT-OF-SCHOOL FARMERS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	24	92	20	37	7	180
Administrators	18	71	35	45	11	180
z-score 2.90**						

TABLE IV

RESPONSES CONCERNING THE SUGGESTION THAT EDUCATIONAL NEEDS OF ADULTS ARE BEING ADEQUATELY MET BY AGENCIES OTHER THAN THE PUBLIC SCHOOL

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	12	52	24	67	25	180
Administrators	10	80	32	45	13	180
z-score 3.20**						

are more nearly meeting the educational needs of adults than do the teachers in this study. Although a significant difference between the responses was observed at the five per cent level, teachers and administrators are not in agreement among themselves as to the desirability of agencies, other than the public school, providing educational experiences to adult farmers.

Teacher influence upon young men after leaving high school. It has been observed that teachers exert a tremendous influence over students enrolled in vocational agriculture through a close work-study association. It has also been observed that young men trained in agriculture become more independent in their thinking after leaving high school and do not rely upon the teacher as greatly in decision making relative to farm problems. Table V shows that a majority of the teachers are of the opinion that their influence is maintained after the students leave high school.

A total of seventy-six teachers were in agreement to the statement while 103 teachers expressed disagreement. A total of ninety-two administrators were in agreement with the statement as compared with sixty-nine in disagreement. The difference in responses expressed by the two groups may be attributed to the belief held by teachers that intimate work-study relationships carry over into adult life. The fluctuation of responses between the two groups produced a z-score of 3.76 which is significant at the five per cent level. Therefore, the null hypothesis is rejected.

Adult programs through personal services provided by the teacher. The data presented in Table VI show that teachers and administrators disagree significantly as to the role of the teacher in providing

TABLE V

RESPONSES CONCERNING THE VALIDITY OF THE ASSUMPTION THAT TEACHERS OF VOCATIONAL AGRICULTURE HAVE MUCH LESS INFLUENCE WITH YOUNG MEN AFTER LEAVING HIGH THAN WITH ALL DAY STUDENTS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	7	60	10	70	33	180
Administrators	6	86	19	59	10	180
z-score 3.76**						

TABLE VI

RESPONSES CONCERNING VALIDITY OF THE ASSUMPTION THAT A MORE EFFECTIVE ADULT PROGRAM WILL BE MAINTAINED THROUGH PERSONAL SERVICE THAN THROUGH AN ORGANIZED PROGRAM INVOLVING GROUP ACTIVITIES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	6	31	21	76	46	180
Administrators	11	61	18	60	30	180
z-score 3.73**						

specialized services to adult farmers. It is an accepted fact that many teachers make available their services for pruning trees, vaccinating livestock, hauling livestock to market, spraying lawns, and performing other menial tasks which services distract from the primary objective of the teacher; that is, providing educational learning experiences. A total of 122 teachers disagreed with the assumption that teachers should provide personal services as compared to ninety administrators. It is worthy of note that twenty-one teachers and eighteen administrators were undecided as to the service role of the teacher. The differences in responses produce a z-score of 3.73 which is significant at the five per cent level; therefore, the null hypothesis is rejected.

Future Farmers of America

The Future Farmers of America were organized to supplement the vocational agriculture program through fairs, shows, contests, leadership activities, group socials, and other extra-curricular activities. Through the years, the FFA program has become highly respected as an organization of young men with common interests who are engaged in the advancement of agriculture and rural farm life. Membership is available only to boys who are between the ages of fourteen and twenty-one and to those who are enrolled in vocational agriculture. Within recent years the organization has been attacked on the basis that its objectives and purposes were outdated in a vastly changing agriculture. Tables VII through XII will attempt to analyze the responses of teachers and administrators toward some of the more prevalent ideas toward changes.

Name change for the Future Farmers of America organization. Amendments have been submitted repeatedly to voting delegates at the National Convention of Future Farmers of America held each October at Kansas City, Kansas, in an unsuccessful attempt to secure approval for a name change. It is the opinion of many the words "Future Farmers" present an image not in keeping with the trends in agriculture. It has been estimated that only nine per cent of our national population will be actively engaged in production agriculture within a few years; therefore, many students currently enrolled in vocational agriculture and the Future Farmers of America will not be actively engaged in production agriculture as a career.

Table VII shows that a much larger number of administrators favors a name change than do teachers. A total of eighty-six teachers favored a name change while eighty-one teachers did not as compared to 119 administrators favoring a change while only forty-two were in disagreement. A z-score of 3.62 reveals a significant difference in responses at the five per cent level. Therefore, the null hypothesis is rejected.

It is a valid assumption to state that farmers and agricultural workers are less receptive to change than are some members of the other occupations. This assumption may indicate a reason for the significant difference in responses.

Mandatory membership in the Future Farmers of America for all vocational agriculture students. Data in Table VIII show that teachers and administrators are not in agreement with responses relative to mandatory membership in the Future Farmers of America organization. A total of 109 teachers expressed agreement to the proposition

TABLE VII

RESPONSES CONCERNING A NAME CHANGE FOR THE FUTURE FARMERS OF AMERICA ORGANIZATION

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	22	29	12	44	73	180
Administrators	17	39	31	69	24	180
			z-score 3.67**			

TABLE VIII

RESPONSES CONCERNING THE PRACTICE OF MANDATORY MEMBERSHIP IN THE FUTURE FARMERS OF AMERICA FOR ALL VOCATIONAL AGRICULTURE STUDENTS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	52	57	4	52	15	180
Administrators	20	64	17	58	21	180
			z-score 3.21**			

while only eighty-four administrators expressed agreement. Since the z-score value of 3.21 is considerably higher than required for significance at the five per cent level, the null hypothesis is rejected.

A possible explanation for the difference in responses may be the belief held by many teachers that the FFA is an integral part of the total vocational agriculture program. Even though membership is voluntary, teachers often exert internal pressures to secure 100% membership. It is believed that administrators are more lenient in their outlook on membership in school sponsored organizations.

Development of unacceptable self-centered attitudes by participation in the Future Farmers of America. Table IX shows that both teachers and administrators disagree with the statement that participation in the FFA often leads to the development of unacceptable self-centered attitudes although a significant difference in responses was determined at the five per cent level. A z-score of 6.53 is significant.

A possible explanation for the difference in responses is the intensity of disagreement instead of disagreement at opposite ends of the continuum.

Activities of the Future Farmers of America as being too juvenile for maturing young men. The data in Table X show that 159 teachers and 113 administrators disagree with the statement concerning the FFA as being too juvenile for maturing young men. Almost as many administrators were undecided as there were in agreement. The z-score of 7.03 is significant at the five per cent level. Therefore, the null hypothesis is rejected.

Traditionally, teachers of vocational agriculture were former

TABLE IX

RESPONSES CONCERNING THE DANGER OF THE DEVELOPMENT OF UNACCEPTABLE SELF-CENTERED ATTITUDES ON THE PART OF HIGH SCHOOL STUDENTS THROUGH PARTICIPATION IN THE FUTURE FARMERS OF AMERICA

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	3	5	11	58	107	180
Administrators	3	12	20	108	37	180

z-score 6.53**

TABLE X

RESPONSES CONCERNING AN APPRAISAL THAT FUTURE FARMER OF AMERICA ACTIVITIES ARE TOO JUVENILE TO APPEAL TO MATURING YOUNG MEN AT THE UPPER HIGH HIGH SCHOOL LEVEL

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	2	10	9	84	75	180
Administrators	6	31	30	89	24	180

z-score 7.03**

members of the FFA and have been instilled with the spirit of "carrying the torch" throughout their adult life. This explanation is presented as a reason for the large number of responses from teachers stating disagreement.

Expansion of the Future Farmer of America program to include girls. The data in Table XI show that both teachers and administrators expressed disagreement with the hypothesis that the FFA program should be expanded to include girls. The table indicates that 102 teachers and 118 administrators expressed disagreement while forty-seven teachers and twenty-six administrators expressed agreement. The z-score value of 1.22 is below that required for significance at the five per cent level. Thus, the null hypothesis cannot be rejected.

Teachers and administrators realize that the activities of the FFA, as they are now organized appeal to the interests of young men instead of young ladies. As previously stated in this study, the FFA was organized exclusively for young men over fourteen years of age and it appears that teachers and administrators are not receptive to the suggestion that membership should be made available to young ladies.

Enrollment of active 4-H club members into vocational agriculture and the Future Farmers of America organization. Dual membership in the FFA and 4-H organizations has caused considerable conflict through the years. This conflict has been caused partially through a struggle for community dominance; therefore, much of the conflict can be attributed to personal differences between the leaders of the two groups.

The data presented in Table XII show that ninety-six teachers and 119 administrators favor dual membership in the FFA and 4-H club

TABLE XI

RESPONSES CONCERNING THE DESIRABILITY OF EXPANSION OF THE FUTURE FARMERS OF AMERICA PROGRAM TO ADMIT GIRLS WHO ENROLL IN VOCATIONAL AGRICULTURE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	8	39	31	58	44	180
Administrators	3	23	36	80	38	180

z-score 1.22 (not significant)

TABLE XII

RESPONSES CONCERNING THE DESIRABILITY OF ENROLLMENT OF ACTIVE 4-H CLUB MEMBERS INTO VOCATIONAL AGRICULTURE AND THE FUTURE FARMERS OF AMERICA ORGANIZATION

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	17	69	13	50	31	180
Administrators	17	102	19	30	12	180

z-score 3.62**

while eighty-one teachers and forty-two administrators expressed disagreement in respect to dual membership. The difference in responses between the two groups results in a z-score value of 3.62 which is significant at the five per cent level. Therefore, the null hypothesis is rejected.

Administration

Programs in vocational agriculture show a degree of uniqueness when compared with other programs in the school curriculum. Although the teacher of vocational agriculture is directly responsible to the principal and superintendent for his program, the administration is limited in the degree of control over the teacher and his program. The following tables will be used in an endeavor to analyze some of the problems often encountered by administrators in providing administrative leadership to the community agricultural program.

Teaching other subjects in schools having a low enrollment in vocational agriculture. School administrators have as one of their many responsibilities the task of equalizing the teaching load of teachers. It is not uncommon for teachers in the academic field to provide instruction to 100-150 students each day while the vocational agriculture teacher may provide instruction for twenty to thirty students. Since teachers of vocational agriculture are not permitted to teach other subjects in the school curriculum, conflicts often arise with other faculty members. Some administrators feel this policy to be not only unfair but also detrimental to the morale of all faculty members.

Table XIII shows a very high degree of difference in responses.

A total of sixty-nine teachers "strongly disagree" with the statement while ninety-four administrators "strongly agree". Also, 110 teachers were in disagreement while a total of 162 administrators were in agreement. A very high significant difference at the five per cent level was found. On the basis of a z-score value of 13.19 the null hypothesis is rejected.

Most vocational agriculture teachers are of the opinion that a smaller teacher-student ratio is necessary than may be expected for teachers in other subject areas in order that a comprehensive program in community agriculture can be planned and supervised. Teachers spend considerable time in the community working with both young and adult farmers and supervising the farm training program of students enrolled in all-day classes. This explanation is provided as a possible reason for the significant difference found in the responses from the two groups.

Necessity for twelve month employment to adequately maintain a program in agricultural improvement. Vocational agriculture teachers in Texas have traditionally been employed for twelve months on the assumption that their services were needed by farmers during the summer months or during the peak season of harvest. Also, the farm training program of all-day students requires supervision during the summer months.

Table XIV indicates that teachers and administrators disagree significantly in their responses to the statement of this need. A total of 173 teachers agreed with the need for twelve month employment as contrasted to 104 administrators. Only four teachers were in

TABLE XIII

RESPONSES CONCERNING THE TEACHING OF OTHER SUBJECTS IN SCHOOLS HAVING LOW ENROLLMENT IN VOCATIONAL AGRICULTURE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	6	36	28	41	69	180
Administrators	94	68	6	8	4	180

z-score 13.19**

TABLE XIV

RESPONSES CONCERNING THE NECESSITY FOR TWELVE MONTH EMPLOYMENT OF TEACHERS TO ADEQUATELY MAINTAIN A PROGRAM IN AGRICULTURAL IMPROVEMENT

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	134	39	3	3	1	180
Administrators	32	72	19	40	17	180

z-score 11.36**

disagreement as to the need for twelve month employment as compared to fifty-seven administrators. The z-score value of 11.36 between the responses of the two groups is significant at the five per cent level. Therefore, the null hypothesis is rejected.

The investigator feels that many administrators are of the opinion that teachers abuse the summer program by allowing personal interests such as farming to supersede those of the agriculture program. Although teachers must submit an organized plan of summer activities to the area supervisor and state director, many teachers have developed a general attitude of "take it easy during the summer months". The investigator offers the above explanations as possible reasons for the difference in responses between the two groups.

Encouraging students with high academic ability to enroll in vocational agriculture when accompanied by high interest and desire. Table XV shows that both teachers and administrators agree with the desirability of encouraging students with high academic ability to enroll in vocational agriculture. However, a significant difference in responses was observed. The difference appears to be in the degree of intensity of belief and not disagreement towards the statement. A total of 180 teachers and 170 administrators expressed agreement. It should be noted that no responses were received from teachers as being "undecided", "disagree", or "strongly disagree". Only ten responses from administrators were received in which a response other than agreement was evidenced. Even though a large majority of responses indicated agreement to the statement, a z-score of 9.16 between responses is significant at the five per cent level.

Teachers believe that vocational agriculture is often used as a

"dumping ground" for low ability students, a situation which deprives agriculture of potential leaders for the future. However, the investigator feels that administrators, aware of this general feeling expressed by teachers, have made advancements in curriculum planning to alleviate this problem. It has also been observed throughout this study that administrators are reluctant to respond greatly in the "strongly agree" and the "strongly disagree" columns. This observation may partially explain the significant difference that was reported. It appears that teachers have a stronger feeling toward statements concerning their status in the community and with other faculty members than administrators do.

Suitability of offering vocational agriculture at the eighth grade level. Data in Table XVI show that teachers and administrators differ in their opinion as to the beginning of vocational agriculture at the eighth grade level. A close analysis of the table reveals that the significant difference exists at the opposite ends of the continuum since the other responses show equal distribution. A z-score of 2.95 reveals a significant difference in responses at the five per cent level. Although a significant difference was observed, teachers and administrators are not in agreement among themselves. Such a status quo indicates a break-through in traditional thinking that vocational agriculture should be taught only to high school students.

Expansion of the vocational agriculture program into other vocational areas without distracting from the objectives of vocational agriculture. A decrease in the number of farmers required to supply the food and fiber for this nation has caused an increase in the number of workers in non-farm agricultural occupations required to

TABLE XV

RESPONSES CONCERNING THE DESIRABILITY OF ENCOURAGING STUDENTS WITH HIGH ACADEMIC ABILITY TO ENROLL IN VOCATIONAL AGRICULTURE WHEN ACCOMPANIED BY HIGH INTEREST AND DESIRE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	125	55	0	0	0	180
Administrators	40	130	2	4	4	180
z-score	9.16**					

TABLE XVI

RESPONSES CONCERNING THE SUITABILITY OF OFFERING VOCATIONAL AGRICULTURE AT THE EIGHTH GRADE LEVEL

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	14	56	41	56	13	180
Administrators	5	47	39	57	32	180
z-score	2.95**					

support production agriculture. Traditionally, teachers have trained students for operation of the farm, but it now appears the intensity of this type of training is no longer required. Instead, students with a knowledge about the operating procedure of the farm are required in non-farm agricultural occupations such as marketing and processing. Since other vocational courses are charged with the responsibility of providing training in these areas, the central question is "Can vocational agriculture infringe upon these areas as a part of their training program without distracting from their primary objectives?"

Table XVII shows that both teachers and administrators generally agree as to the role of agricultural training in the related fields, but a z-score of 2.14 is significant at the five per cent level and the null hypothesis is rejected. A total of 101 teachers and 121 administrators responded in agreement to the statement. It will be noted that thirty-eight teachers and twenty-five administrators responded as "undecided", a fact which indicates they may be unsure as to the desirability of deviating from traditional objectives.

Need of area vocational schools to provide adequate training in agriculture to meet the needs of all students. Data in Table XVIII show that eighty teachers and ninety-eight administrators believe that area vocational schools are necessary to provide adequate training in agriculture. It will be noted that fifty-six teachers and fifty administrators responded as "undecided" to the statement, a result which indicates the highest total groups of undecided responses reported in this study. A z-score of 1.99 between the responses of the two groups indicates a significant difference at the five per cent level; therefore, the null hypothesis is rejected.

TABLE XVII

RESPONSES CONCERNING DESIRABILITY OF AN EXPANSION OF THE PROGRAM INTO OTHER VOCATIONAL AREAS WITHOUT DISTRACTING FROM THE OBJECTIVES OF VOCATIONAL AGRICULTURE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	9	92	38	31	10	180
Administrators	14	107	25	31	3	180

z-score 2.14*

TABLE XVIII

RESPONSES CONCERNING VALIDITY OF THE ASSUMPTION THAT AREA VOCATIONAL SCHOOLS ARE NEEDED TO PROVIDE ADEQUATE TRAINING IN AGRICULTURE TO MEET THE NEEDS OF ALL STUDENTS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	9	71	56	38	6	180
Administrators	15	83	50	22	10	180

z-score 1.99*

A plausible explanation of this finding of difference in responses might be that the administrators are better informed as to the needs of all students through communications with the state department of education and seminar type meetings with other administrators. School administrators have noticeably a greater responsibility for projected planning to meet the future needs of students than other faculty members do.

Curriculum and Instruction

The primary responsibility of teachers of vocational agriculture is the teaching of all-day students. Teachers must plan courses of study that will most adequately serve the needs of students who desire to seek a career in production agriculture or non-farm agricultural occupations. Technological advances in agriculture have caused many teachers to become confused and frustrated in planning their yearly program of instruction. These advances have required flexibility in the local program and to some extent have modified the objectives of vocational agriculture. The following six tables were arranged to show the opinion of teachers and administrators toward a modification of the now existing program.

Teaching basic principles and theories rather than specific occupational skills. Data in Table XIX show that teachers and administrators are almost evenly divided in their responses although a wide dispersion is evidenced along the continuum within each group. Administrators slightly outnumber the teachers in their agreement with the teaching of principles and theories as contrasted with the development of specific occupational skills.

There appears to be a trend toward the development of principles and theories in agriculture in recent years. It is believed those teachers and administrators who expressed disagreement with the statement are individuals who believe in the theory that agriculture never changes. Since the data show no significance between the responses of the two groups, the null hypothesis cannot be repudiated.

Adoption of a common core of subject matter. Table XX indicates that 124 teachers and eighty-seven administrators agree with the statement concerning the desirability for the adoption of a core curriculum of subject matter for the entire state. The z-score of 4.43 is significant at the five per cent level and the null hypothesis is rejected. Although a significant difference was determined between the two groups, responses from both groups clustered around the agreement end of the continuum. This apparent expression of approval for a core curriculum is rather difficult to understand. Texas varies geographically from the wheat fields of the north to the citrus orchards of the south and from the cotton fields of the west to the pine trees of the east. Since the teaching of vocational agriculture is primarily based upon the needs of the community, it is not anticipated that teachers in the wheat area would devote instructional time to the growing of citrus trees.

A more plausible explanation of this finding may center around the teaching of basic principles and theories discussed previously in this study. It is within the realm of expectation that all students interested in agriculture should have some knowledge about soil conservation, farm management, agricultural mechanics, nutritional requirements for livestock and poultry, and other areas which do not

TABLE XIX

RESPONSES CONCERNING THE TEACHING OF BASIC PRINCIPLES AND THEORIES AS CONTRASTED WITH DEVELOPING SPECIFIC OCCUPATIONAL SKILLS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	18	71	12	59	20	180
Administrators	24	75	18	46	17	180

z-score 1.46 (not significant)

TABLE XX

RESPONSES CONCERNING THE DESIRABILITY FOR THE ADOPTION OF A CORE CURRICULUM OF SUBJECT MATTER FOR THE ENTIRE STATE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	37	87	10	30	16	180
Administrators	7	80	26	49	18	180

z-score 4.43**

change with a variation in geographical areas.

A possible explanation for the high number of positive responses from teachers may be attributed to the fact that less time would be required in teacher preparation for classroom instruction. Also, less planning for the yearly classroom activities would be required.

Teaching general science and/or biology in addition to agriculture. Teachers are not permitted by state policy to teach subjects other than agriculture in the school system. This policy affords teachers a greater opportunity to develop the community agriculture program and to provide sufficient time for the supervised farm training program. This policy has met disfavor with some school administrators who maintain that teacher assignments should be determined by the administrators.

The pre-service curriculum for teachers of vocational agriculture requires a minimum of eleven semester hours in the biological areas since the teaching of agriculture involves teaching about animals and plants. The feeling exists among some educators in agriculture that teachers would be more effective in their teaching of agriculture if biological courses were taught in addition to their regular teaching assignment. This notion is based upon the premise that intimate contact would be maintained in science, a situation which would provide up-to-date teaching material for agriculture.

Table XXI indicates that 157 teachers expressed disagreement with the statement. Administrators were more unresolved in their responses. An almost equal number were in agreement and disagreement while forty-nine responded as being undecided. A z-score of 11.31 reveals a

highly significant difference at the five per cent level; therefore, the null hypothesis is rejected.

Career influence through participation in fairs, shows, and contests. The data presented in Table XXII show that 104 teachers agree with the statement concerning involvement in fairs, shows, and contests as influencing career choices of students while only forty-nine administrators have the same agreement. A larger number of administrators expressed disagreement with the statement. It should be noted that seventy teachers and administrators were undecided as to the degree of influence upon career choices.

The variation of responses from the two groups provided a z-score of 5.85 which is significant at the five per cent level; therefore, rejection of the null hypothesis is mandatory.

Expansion of the curriculum to meet the needs of all students in agriculture. Within the past decade, advanced technology and mechanization in agriculture have significantly reduced the number of farmers required to produce the food and fiber necessary to sustain the nation. Although fewer farmers are required in production agriculture, a greater number of people in non-farm agricultural occupations are required in supporting roles such as marketing and processing.

Table XXIII shows that 118 teachers and 126 administrators agree with the premise concerning curriculum expansion which is extended to include training in non-farm agricultural occupations. A study of Table XXIII will reveal that both teachers and administrators gave identical responses, for all practical purposes, along the continuum with sixty-seven responses from both groups indicating disagreement. A z-score of .03 is not significant at the five per cent level;

TABLE XXI

RESPONSES CONCERNING INCREASED EFFECTIVENESS ATTAINED THROUGH THE TEACHING OF GENERAL SCIENCE AND/OR BIOLOGY

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	3	7	13	71	86	180
Administrators	17	52	49	54	8	180

z-score 11.31**

TABLE XXII

RESPONSES CONCERNING THE EFFECTIVENESS OF EXTENSIVE STUDENT INVOLVEMENT IN FAIRS, SHOWS, AND CONTESTS AS SUCH ACTIVITIES MAY INFLUENCE CAREER CHOICES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	16	88	28	41	7	180
Administrators	2	47	42	75	14	180

z-score 5.85**

therefore, the null hypothesis is not rejected. Though the data show no difference between the two groups, they are revealing in that attitudes about the traditional farm training program are changing toward training in non-farm agricultural occupations.

Increasing the emphasis on agricultural mechanics. The mechanization of agriculture has increased the need for the development of shop and mechanical skills in order that equipment may be properly adjusted and repaired. The responses in Table XXIV indicate a greater degree of disagreement among teachers than administrators. The z-score value of 2.96 is significant at the five per cent level and the null hypothesis is rejected. However, the investigator feels that this significant difference in responses should not be taken to mean that teachers and administrators are not necessarily in disagreement as to the need for an agricultural mechanics program, but rather it expresses disagreement in the amount of time that should be devoted to this particular program. A more credible explanation of this finding might constitute a justification attempt on the part of teachers and possibly administrators who have not been particularly sensitive to a consideration of the needs of students.

Facilities and Equipment

It is assumed that interaction between teacher and students brings about new learning experiences for the student. Basically, this assumption is valid provided reinforcements can be provided through the use of instructional equipment such as laboratories, visual aids, and facilities conducive to learning. Some school districts are unable financially to provide the necessary facilities and equipment necessary

TABLE XXII

RESPONSES CONCERNING THE DESIRABILITY OF CURRICULUM EXPANSION IN VOCATIONAL AGRICULTURE TO INCLUDE TRAINING IN NON-FARM AGRICULTURAL OCCUPATIONS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	23	95	29	28	5	180
Administrators	17	109	20	29	5	180

z-score .03 (not significant)

TABLE XXIV

RESPONSES CONCERNING THE DESIRABILITY OF DEVOTING AT LEAST 50% OF THE TOTAL INSTRUCTIONAL PROGRAM TO AGRICULTURAL MECHANICS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	16	51	21	78	14	180
Administrators	11	73	43	50	3	180

z-score 2.96**

to organize and maintain adequate programs. This part of the study will be devoted to the reaction of teachers and administrators toward a series of selected statements concerning facilities and equipment.

Desirability of standardizing teaching facilities and equipment by the state in order to maintain minimum standards. Table XXV indicates that teachers greatly outnumbered administrators concerning the desirability of standardization of teaching facilities and equipment by the state. A total of 116 teachers expressed agreement as compared with eighty-seven administrators, but a close analysis of the table reveals that administrators are equally distributed on each side of the agree and disagree continuum. The z-score value of 3.65 is significant at the five per cent level; therefore, the null hypothesis is rejected.

Desirability of sharing agricultural mechanics equipment with other vocational teachers to secure maximum utilization of equipment. The data in Table XXVI show that 148 teachers disagree with the statement as compared with forty administrators. Also, 124 administrators expressed agreement to the statement as compared with eighteen teachers. The responses from teachers indicate a very strong feeling toward the separation of equipment from other vocational teachers. A z-score value of 12.09 is significant at the five per cent level; therefore, the null hypothesis is rejected. Table XXVI expressed the greatest significant difference of the statements surveyed in facilities and equipment.

Responses concerning a relationship between adequate facilities and equipment and the quality of the instructional program. Table XVII reveals a significant difference in the responses between

TABLE XXV

RESPONSES CONCERNING THE DESIRABILITY OF STANDARDIZING TEACHING FACILITIES AND EQUIPMENT BY THE STATE IN ORDER TO MAINTAIN MINIMUM STANDARDS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	39	47	14	37	13	180
Administrators	22	65	11	60	22	180
z-score 3.65**						

TABLE XXVI

RESPONSES CONCERNING THE DESIRABILITY OF SHARING AGRICULTURAL MECHANICS EQUIPMENT WITH OTHER VOCATIONAL TEACHERS IN ORDER TO SECURE MAXIMUM UTILIZATION OF EQUIPMENT

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	4	14	14	47	101	180
Administrators	42	82	16	26	14	180
z-score 12.09**						

the two groups, although a majority of the respondents indicated agreement with the statement. As stated previously in this study, administrators are prone to stay within the limits of the continuum stating "agree" or "disagree". This observation provides a practical reason for the significant difference. A z-score of 3.36 is significant at the five per cent level; therefore, the null hypothesis is rejected.

Less equipment necessary in the teaching of vocational agriculture when contrasted with the teaching of other vocational subjects. Table XXVIII shows that teachers and administrators are not in agreement relative to the teaching of vocational agriculture with less equipment than required for other vocational subjects. The greatest number from each group showed ninety teachers voicing disagreement while ninety-five administrators expressed agreement. A z-score value of 2.43 is significant at the five per cent level; therefore, the null hypothesis is rejected.

It will be noted that responses were distributed along the continuum in almost equal numbers which distribution strongly suggests that both teachers and administrators do not concur among themselves.

Cause for teacher failure to maintain shop equipment is due to inadequate pre-service training. Table XXIX indicates that teacher failure to properly maintain shop equipment is caused by inadequate pre-service training in agricultural mechanics although no significant difference is evidenced between the responses of the two groups. Though the data show no significant difference between the two groups, they are revealing in that they do point up an area in which nearly all teachers are in need of either pre-service or in-service training.

TABLE XXVII

RESPONSES CONCERNING A SUGGESTED DIRECT RELATIONSHIP BETWEEN ADEQUATE FACILITIES AND EQUIPMENT AND THE QUALITY OF THE INSTRUCTIONAL PROGRAM

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	72	84	5	16	3	180
Administrators	40	106	6	28	0	180

z-score 3.36**

TABLE XXVIII

RESPONSES CONCERNING THE RELATIVE EFFECTIVENESS OF SIMPLE MINIMUMS IN EQUIPMENT WHEN CONTRASTING THE TEACHING OF AGRICULTURE WITH THE TEACHING OF OTHER VOCATIONAL SUBJECTS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	9	70	11	60	30	180
Administrators	6	89	16	63	6	180

z-score 2.43*

A total of 135 teachers and 117 administrators expressed agreement with the statement while thirty-five and twenty-eight, respectively, expressed disagreement. Thirty-five administrators were undecided. A z-score of 1.91 is not significant between the responses of the two groups; therefore, the null hypothesis is tenable.

Desirability of maintaining agricultural equipment and facilities separately from other vocational programs. Data presented in Table XXX show that a highly significant difference exists between teachers and administrators concerning the separate maintenance of equipment and facilities from other vocational programs. An analysis of the table shows that 120 teachers agree with the idea of separate maintenance as compared with fifty-five administrators. On the other hand, ninety administrators expressed disagreement with the statement as compared with forty teachers. A relatively high number from both groups were undecided. The difference in responses produced a z-score of 6.57 which is significant at the five per cent level. Therefore, the null hypothesis must be rejected.

Table XXX can be used as a cross check with Table XXVI relative to the sharing of equipment. As stated previously, teachers desire to maintain a program that is relatively free of conflicts with other faculty members. Administrators appear to be more concerned with the maximum utilization of equipment in order to provide as much different equipment in the school system as possible.

Supervised Farm Training Program

Vocational agriculture has always considered supervised farm training as the backbone to its program. In recent years teachers

TABLE XXIX

RESPONSES CONCERNING VALIDITY OF AN ASSUMPTION THAT FAILURE OF TEACHERS TO PROPERLY MAINTAIN SHOP EQUIPMENT IS DUE TO INADEQUATE PRE-SERVICE TRAINING

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	29	106	10	31	4	180
Administrators	17	100	35	25	3	180

z-score 1.91 (not significant)

TABLE XXX

RESPONSES CONCERNING THE DESIRABILITY OF MAINTAINING AGRICULTURAL MECHANICS EQUIPMENT AND FACILITIES SEPARATELY FROM OTHER VOCATIONAL PROGRAMS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	30	39	20	30	10	180
Administrators	7	48	35	81	9	180

z-score 6.57**

have been attempting to justify this program despite a decline in the number of students returning to the farm after graduation. It would appear a valid assumption that students not returning to the farm should endeavor to substitute other training programs such as off-the-farm work experiences in related fields. Tables XXXI through XXXVI will be devoted to responses concerning the supervised farm training program.

Student failure to recognize principles of economics and values through participation in a supervised farm training program. Data in Table XXXI disclose that teachers and administrators do not differ greatly enough in their responses for significance at the five per cent level. A z-score value of 1.68 is not significant; therefore, the null hypothesis is not rejected.

A total of 127 teachers and 142 administrators expressed agreement to the statement while forty-eight teachers and twenty-five administrators expressed disagreement. The large number of responses from teachers expressing agreement is somewhat surprising. Some teachers have been of the opinion that a successful school year was measured by the number of livestock shows attended and the amount of prize money won. Other teachers have been of the opinion that it is impractical to produce show animals because of the excessive cost and time involved. In other words students were not being trained to produce livestock on a competitive market after graduation from high school. Table XXXI reveals that a trend exists among teachers to shy away from the show program.

Value of work experiences in agricultural businesses as contrasted with experiences obtained through the traditional supervised farm

training program. Data in Table XXXII show that teachers and administrators are in concurrence relative to the value of work experiences in agricultural businesses. A total of 128 teachers and 130 administrators expressed agreement. Although no significant difference is revealed in Table XXXII, it should be noted that both teachers and administrators are concerned about the occupational training of students interested in agriculture. There appears to be some doubt as to the real value of the supervised farm training program as it is now constituted, but this statement is not to be construed to mean that the supervised farm training program has no place in the vocational agriculture program.

Desirability of requiring each student to participate in a traditional supervised farm training program. Data presented in Table XXXIII reveal that a significant difference exists in responses from the two groups. This difference becomes somewhat difficult to reconcile when also considering responses shown in Table XXXII. In this table teachers generally concur that every student should have a supervised farm training program, while administrators show a greater latitude in responses along the continuum. A z-score of 4.77 is highly significant at the five per cent level; therefore, the null hypothesis is rejected.

As a possible explanation for the difference in responses in Table XXXII and Table XXXIII which were also arranged to serve as check questions, it can be suggested that possibly the words "some students" when applied to Table XXXII were interpreted by the teachers and administrators in a different manner than that originally intended by the investigator.

TABLE XXXI

RESPONSES CONCERNING THE VALIDITY OF ASSIGNING STUDENT FAILURE TO RECOGNIZE PRACTICAL PRINCIPLES OF ECONOMICS AND VALUES AS CAUSED BY SUPERVISED FARM TRAINING PROGRAM EMPHASIS UPON SHOW PROGRAMS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	45	82	5	33	15	180
Administrators	47	95	13	20	5	180

z-score 1.68 (not significant)

TABLE XXXII

RESPONSES CONCERNING RELATIVE VALUE OF WORK EXPERIENCES IN AGRICULTURAL BUSINESSES AS CONTRASTED WITH EXPERIENCES OBTAINED THROUGH THE TRADITIONAL SUPERVISED FARM TRAINING PROGRAM

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	38	90	22	25	5	180
Administrators	29	101	21	25	4	180

z-score .92 (not significant)

Desirability of allowing student option in choice of supervised farm training program or work experiences in non-farm agricultural occupations. Data in Table XXXIV show that both teachers and administrators favor student option in his choice of a supervised farm training program or work experiences in non-farm agricultural occupations. A total of 122 teachers and 135 administrators expressed favor to the supposition. A z-score of .71 is not significant at the five per cent level; therefore, the null hypothesis must not be rejected. It is apparent that both groups are reconciled to a possible implementation of a more flexible program in pre-occupational training at the secondary school level.

Validity of the assumption that teachers would have adequate time to supervise work experiences in agricultural businesses in addition to effectively supervising farm training. The advent of work experiences in non-farm agricultural occupations into the vocational agriculture curriculum has imposed a question as to the adequacy of time for the supervision of such training experiences. Table XXXV shows that teachers and administrators are not in concurrence about the availability of time. A total of eighty-one teachers and ninety-seven administrators expressed general agreement while seventy teachers and fifty-six administrators expressed disagreement. The distribution of responses did not produce a significant difference at the five per cent level, therefore, the null hypothesis is not rejected. It is the belief of the investigator that teachers and administrators are of the opinion that adequate time should be made available, but the difference in extent of agreement arises from the problem of adding a new activity to an already full program and schedule.

TABLE XXXIII

RESPONSES CONCERNING THE DESIRABILITY OF MAINTAINING A MANDATORY REQUIREMENT THAT EACH STUDENT HAVE A SUPERVISED FARM TRAINING PROGRAM

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	35	81	19	41	4	180
Administrators	17	60	22	60	21	180

z-score 4.77**

TABLE XXXIV

RESPONSES CONCERNING THE DESIRABILITY OF ALLOWING STUDENT OPTION IN CHOICE OF SUPERVISED FARM TRAINING PROGRAMS OR WORK EXPERIENCES IN NON-FARM AGRICULTURAL OCCUPATIONS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	22	100	32	24	2	180
Administrators	15	120	29	14	2	180

z-score .71 (not significant)

Acceptance of agricultural shop projects from home shop facilities in lieu of production projects. The supervised farm training program has generally consisted of enterprises in livestock and crops under the supervision of the teacher. Shop projects have been considered as a supplement to the various production enterprises. With the mechanization of agriculture, the trend has been to move away from traditional procedures and to allow students to participate in shop projects in lieu of production enterprises. Data in Table XXXVI generally support this trend. A total of ninety teachers and 119 administrators expressed agreement to the supposition while seventy teachers and twenty-eight administrators indicated disagreement. A z-score of 2.46 is significant at the five per cent level; therefore, the null hypothesis is rejected.

The difference in responses which produced a significant difference is attributed to the fact that administrators are more receptive to changes than are teachers. The many changes in public schools in recent years may be a contributive factor. It is believed that teachers have altered their instructional program in recent years to include more training in mechanical skills and that they will continue to devote more time to the invention and improvement of agricultural equipment.

Summary. Thirty-six statements related to the vocational agriculture program were tested to determine whether or not significant differences were exhibited between the responses of teachers of vocational agriculture and public school administrators. Tables were used to present the findings to each of the statements. An analysis accompanies each table. Those statements which revealed significant

TABLE XXXV

RESPONSES CONCERNING VALIDITY OF ASSUMPTION THAT TEACHERS WOULD HAVE ADEQUATE TIME TO SUPERVISE ON THE JOB TRAINING IN AGRICULTURAL BUSINESSES IN ADDITION TO EFFECTIVELY SUPERVISING FARM TRAINING PROGRAMS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	13	68	29	50	20	180
Administrators	7	90	27	44	12	180

z-score .50 (not significant)

TABLE XXXVI

RESPONSES CONCERNING DESIRABILITY OF ACCEPTANCE OF AGRICULTURAL SHOP PROJECTS FROM HOME SHOP FACILITIES IN LIEU OF PRODUCTION PROJECTS OF CROPS AND ANIMALS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Vocational Agriculture Teachers	30	60	20	59	11	180
Administrators	11	108	33	26	2	180

z-score 2.46*

differences at the one per cent level were identified with a double asterisk (**); those that revealed significant differences at the five per cent level with an asterisk (*); and those that showed no significant differences with "not significant".

A list of the statements manifesting significant differences are as follows:

Adult and Young Farmer Education

In view of the decreasing proportion of the population engaged in production agriculture and the surplus commodity program, it seems questionable as to whether an increase in adult agricultural education is justified.

The teacher of Vo-Ag actually will be a more effective instructor of high school pupils if he is maintaining an active educational program of activities for out-of-school farmers.

Especially in the field of agriculture, the educational needs of adults are largely being met by competent agencies other than the public school.

Generally speaking, the teacher of Vo-Ag has much less influence with young men after they have left high school than he did while the young men were enrolled in school.

Most adult programs should be carried to the farmer through an effective program in personal service, such as vaccination, castration, and running terrace lines rather than through group activities.

Future Farmers of America

The organizational name "Future Farmers of America" should be changed to a more appropriate title.

Membership in the FFA should be a requirement for all students enrolled in vocational agriculture.

Participation in the FFA often leads to the development of unacceptable self-centered attitudes on the part of a number of students.

Many of the activities of the FFA are far too juvenile in nature to appeal to maturing young men at the upper high school level.

Students desiring to maintain a close affiliation with the 4-H club organization should be permitted to enroll in both Vo-Ag and the FFA.

Administration of the Vocational Agriculture Program

Under present policy, a teacher of Vo-Ag is not permitted to teach other subjects in the school system, but it is believed they should be permitted to do so in schools with a low enrollment in Vo-Ag.

The present system of employing a teacher of Vo-Ag for twelve months is necessary to adequately maintain a well-rounded community program in agricultural improvement.

Students exhibiting high academic ability should be encouraged to enroll in the Vo-Ag program if it is their interest and desire.

Vo-Ag should begin at the eighth-grade level.

An expansion of the Vo-Ag program into some areas normally taught in Industrial Co-op training, Distributive Education and Trades and Industry is possible without distracting from the objectives of vocational agriculture.

Many schools are presently limited in providing the vocational training desired and/or needed by all students; therefore, area vocational schools have become a necessity to alleviate this problem.

Curriculum and Instruction

The Vo-Ag curriculum allows diversification in subject matter areas as determined by community needs; however, the curriculum should be modified to adopt a common core of subject matter required for the entire state.

A Vo-Ag teacher would be more effective if he also taught general science and/or biology in addition to teaching agriculture.

Extensive involvement in fairs, shows, and contests sponsored by the FFA significantly influences career choices by participating students.

Since agriculture has become highly mechanized, at least 50% of the instructional program in Vo-Ag should be devoted to agricultural mechanics.

Facilities and Equipment

Teaching facilities and equipment for the Vo-Ag department should be standardized by the state in order to maintain minimum acceptable standards.

Shop equipment should be shared by the Vo-Ag teacher, Industrial Arts teacher, and other vocational teachers in order to secure maximum utilization of equipment.

There is a direct relationship between adequate facilities and equipment and the quality of the instructional program.

Although a limited amount of new equipment may be justified, for the most part, agriculture can be taught effectively with considerably less equipment than may be true for other vocational courses.

Shop facilities and equipment should be maintained and operated separately from the various vocational programs in order to insure maximum effective instructional programs.

Supervised Farm Training Program

There is an inherent value to the individual student in an association with growing plants and animals; therefore, every Vo-Ag student should be required to have a supervised farm training program.

Students with home shop facilities should be encouraged to develop agricultural shop projects in lieu of production projects of crops and animals.

A list of the statements not manifesting significant differences are as follows:

Adult and Young Farmer Education

A teacher can serve adult groups effectively by serving as program coordinator for a series of meetings promoted by commercial businesses and various agricultural agencies as well as by organizing educational classes for young and adult farmers.

Future Farmers of America

The present FFA program should be expanded to include girls who enroll in Vo-Ag.

Curriculum and Instruction

Numerous studies show that few vocational choices are made prior to graduation from high school; therefore, the Vo-Ag program should be largely devoted to basic principles and theories rather than to the development of specific occupational skills.

The Vo-Ag curriculum should be expanded to meet the needs of all students. This would include occupational training in related fields and non-farm agriculture as contrasted with many curricula presently directed to the operation of the farm.

Facilities and Equipment

One of the reasons for teachers failing to properly maintain shop equipment is inadequate pre-service training in maintenance of equipment.

Supervised Farm Training Program

A criticism of some supervised farm training programs is that much effort is given to producing champion show animals. As a result, students may often fail to recognize practical principles of economics and values.

It would appear that some Vo-Ag students might gain more valuable work experiences in part-time training and employment in agricultural businesses rather than in conducting the traditional supervised farming program.

The supervised farm training program or participating work experience in agri-business should be offered as options available to students enrolled in Vo-Ag.

The Vo-Ag teacher would have adequate time to supervise on-the-job training in agricultural businesses during school hours as well as supervising the traditional supervised farm training program.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Purpose of the Study

The central purpose of the study was to determine whether or not significant differences existed between the responses of teachers of vocational agriculture and their administrators toward selected statements concerning the vocational agriculture program. Also, it was anticipated that the study would provide a basis for analyzing the responses within each of the two groups in order to identify the extent of concurrence relative to selected statements.

Method and Procedure of the Study

This study was designed to test a number of null hypotheses with regard to possible occurrence of significant differences between teachers of vocational agriculture and their administrators concerning the vocational agriculture program. Hypotheses so formulated were tested for tenability.

After a thorough review of related literature, the researcher proposed a list of fifty-seven statements concerning selected areas or activities of the vocational agriculture program. The statements were then presented to a jury of fifteen educators not only to determine the pertinence and validity of the statements but also to obtain judgments as to their clarity and brevity. From the returned pre-tests,

thirty-six statements were selected and prepared for mailing to 250 teachers of vocational agriculture and their administrators in Texas. The thirty-six statements were sub-divided into six areas of the vocational program with six statements assigned to each area. Areas of the vocational agriculture program selected for investigation were as follows: (1) Young and Adult Farmer Education, (2) Future Farmers of America Organization, (3) Administration, (4) Curriculum and Instruction, (5) Facilities and Equipment, and (6) Supervised Farm Training Program. Each statement was selected on the basis of recommendation received from jury members.

A total of 500 questionnaires were mailed to teachers and administrators. From this number 360 usable questionnaires or 72% were returned. Data from the returns were collated and analyzed. Data pertaining to each of the thirty-six statements were used to test the null hypotheses in order to identify those factors which revealed significant differences in responses between teachers and administrators.

The statistical technique used in the testing of the null hypotheses was the Mann-Whitney U test. The level of significance required for the rejection of a null hypotheses was set at the five per cent level.

Summary of Findings

Adult and Young Farmer Education Programs. Five of the six statements concerning adult and young farmer education indicated a significant difference between responses of the two groups. Data presented in Table I indicated the greatest significant difference relative to the justification of the adult agricultural education program due to a decline in farm population and the surplus of agricultural commodities.

An analysis of each table, detailing responses with regard to the adult program, reveals that teachers are more positive in their belief as to a continued need for adult and young farmer education than was indicated from the responses of the administrators. It is a general observation from the responses of the administrators that agencies other than the public schools are adequately meeting the educational needs of adults in agriculture. Also, it would appear that administrators are uncertain as to the role of the teacher in the adult farm program.

Although significant differences appeared in five of the six statements, it was recognized that differences were expressed largely in degree of intensity to responses rather than in diametric opposition of the two groups' views concerning adult and young farmer education programs.

Future Farmers of America Organization. As stated previously, the primary purpose of the Future Farmers of America organization has been traditionally recognized as functioning as an effective supplement to the vocational agriculture program. In addition to this purpose it is generally agreed that it provides a basis for improved citizenship and rural leadership. However, in recent years many educators have apparently arrived at the conclusion that the significance of the FFA, in its present status, has been decreased as a result of a decline in farm population. Responses from teachers and administrators indicate the need for an evaluation of the FFA program in order to provide a basis for such revisions that will make it function more compatibly with current trends in vocational education.

Responses to five of the six statements surveyed in this area

proved to establish a significant difference. However, it was found that significant difference did not exist between responses concerning the admittance of girls to the vocational agriculture program and the FFA, although within both groups there was expressed a disagreement in regard to the policy of admittance. The greatest significant difference was revealed in Table X which elicited judgments regarding an assumption that FFA activities were too juvenile to appeal to maturing young men at the high school level. Also, it should be noted that within both teacher and administrator groups, considerable difference of opinion was evidenced.

Administration. Responses from teachers and administrators indicated a greater degree of variance in the administration of the vocational agriculture program than was observed in the other five areas used in the study. Responses as recorded in six tables revealed significant differences in responses with three of the tables revealing an exceptionally high degree of significant difference. Data presented in Table XIII indicate the greatest number of responses at the opposite end of the continuum, these data concerning the teaching of other subjects in schools having low enrollment in vocational agriculture. It appears that teachers expressed great concern in those areas which affect them individually, whereas administrators were less prone to give responses at the extreme ends of the continuum than were the teachers. Both teachers and administrators expressed responses as being "undecided" concerning the suitability of offering vocational agriculture at the eighth grade level and the need for area vocational schools to provide adequate training in agriculture.

Curriculum and Instruction. Four of the six statements concerning

curriculum and instruction of the vocational program revealed a significant difference in responses. An analysis of findings presented in Table XXI revealed a significant difference at the five per cent level with a z-score of 11.31. This item was concerned with possible increased teaching effectiveness attained through the teaching of general science and/or biology. Teachers responded strongly against this premise while administrators indicated an even greater disagreement in responses.

The responses as presented in Table XXIII indicated a less significant difference than any of the hypotheses tested. A z-score low of .03 was revealed. Teachers and administrators were in harmonious agreement as to the desirability of curriculum expansion in vocational agriculture to include training in non-farm agricultural occupations. It is apparent that teachers and administrators are concerned about the vocational agriculture curriculum and its instructional program.

Facilities and Equipment. Five of the six selected activities relative to this hypothesis revealed a significant difference in responses. An analysis of data reveals that teachers do not desire to share equipment with other vocational teachers. In fact, there was evidenced a highly significant difference between the responses of the two groups. Significant difference did not exist concerning the assumption that teacher failure to properly maintain shop equipment was due to inadequate pre-service training, although responses from both groups were in agreement regarding this assumption.

Supervised Farm Training Program. Responses to four of the six selected activities relative to hypotheses formulated in this program area were not significant. However, it was found that a significant

difference did exist in responses concerning the desirability of maintaining a mandatory requirement that each student have a supervised farm training program. In a like manner differences also were found to exist with regard to the acceptance of agricultural shop projects in lieu of production projects of crops and animals. Teachers and administrators expressed agreement concerning (1) student failure to recognize practical principles of economics and values through programs emphasizing show activities, (2) value of work experiences in agricultural businesses as contrasted with work experiences obtained through the supervised farm training program, (3) student option in choice of training program, and (4) the assumption that teachers would have adequate time to supervise on-the-job training in agricultural businesses in addition to present work load.

In was interesting to discover that the responses of teachers and administrators are more nearly in agreement with regard to statements concerning supervised work experiences than they are in any other area of the entire vocational program included in this study. There appears to be general acceptance of the assumption that the traditional supervised farming program must be modified or changed to meet current demands in occupational training, even though a lack of agreement as to how to modify the program may be evident.

TABLE XXXVII

DISPOSITION OF NULL HYPOTHESES REGARDING OPINIONS HELD BY TEACHERS AND ADMINISTRATORS CONCERNING THE VOCATIONAL AGRICULTURE PROGRAM

Factor		Disposition
A.	Young and Adult Farmer Education	
	1. Increase justifiable	Rejected
	2. Role assumption in coordinating educational classes	Not rejected
	3. Increased teacher effectiveness with high school students through active adult program	Rejected
	4. Educational needs of adults being met by agencies other than public school	Rejected
	5. Teacher influence less with out-of-school farmers than with all-day students	Rejected
	6. Maintaining active adult program through personalized services	Rejected
B.	Future Farmers of America Organization	
	1. Name change to more appropriate title	Rejected
	2. Mandatory membership in the FFA of all students enrolled in vocational agriculture	Rejected
	3. Development of unacceptable self-centered attitudes through participating in FFA	Rejected
	4. Activities of FFA too juvenile to appeal to maturing young men	Rejected
	5. Admittance of girls to the FFA	Not rejected
	6. Acceptance of 4-H club members into vocational agriculture and the FFA	Rejected

TABLE XXXVII (CONTINUED)

Factor	Disposition
C. Administration	
1. Teaching of other subjects in schools with low enrollment in vocational agriculture	Rejected
2. Teacher employment for twelve months to maintain program in agricultural improvement	Rejected
3. Enrolling high academic ability students into vocational agriculture	Rejected
4. Beginning vocational agriculture at the eighth grade level	Rejected
5. Expansion of program into other vocational education areas	Rejected
6. Area schools needed to provide adequate training in agriculture	Rejected
D. Curriculum and Instruction	
1. Developing basis principles and theories rather than occupational skills	Not rejected
2. Adoption of a core curriculum of subject matter for the entire state	Rejected
3. Increased teacher effectiveness through the teaching of science and/or biology	Rejected
4. Influencing career choices through involvement in fairs, shows, and contests	Rejected
5. Curriculum expansion to include training in non-farm agricultural occupations	Not rejected
6. Desirability of devoting at least 50% of the instructional program to agricultural mechanics	Rejected
E. Facilities and Equipment	
1. Standardizing facilities and equipment to maintain minimum standards	Rejected

TABLE XXXVII (CONTINUED)

Factors	Disposition
E. Facilities and Equipment (Continued)	
2. Sharing of agricultural mechanics equipment with other vocational teachers to secure maximum utilization	Rejected
3. Relationship between adequate facilities and equipment and quality of the instructional program	Rejected
4. Teaching vocational agriculture with less equipment than required for other vocational subjects	Rejected
5. Teacher failure to maintain shop equipment due to inadequate pre-service training	Not rejected
6. Maintenance of agricultural equipment separately from other vocational programs	Rejected
F. Supervised Farm Training Program	
1. Failure of students to recognize principles of economics and values due to emphasis on show programs	Not rejected
2. Value of work experiences in agricultural businesses as contrasted with experiences through supervised farm training program	Not rejected
3. Requiring each student to have a supervised farm training program	Rejected
4. Student option in choice of supervised farm training program or work experiences in non-farm agricultural occupations	Not rejected
5. Adequacy of teacher time to supervise on-the-job training in agricultural businesses	Not rejected
6. Acceptance of agricultural shop projects in lieu of production projects of crops and animals	Rejected

Conclusions

This study was not undertaken to establish a cause and effect relationship between the responses of teachers and administrators relative to selected statements concerning the vocational agriculture program but rather to provide an insight into an identification of areas of major and minor disagreement now existing between teachers and administrators.

To the extent that the samplings were representative and the data collected and opinions expressed were accurate, the following conclusions would seem justifiable:

(1) From the large number of responses indicating significant differences, totaling twenty-seven of the thirty-six so tested, there is strong indication that teachers and administrators have presently failed to achieve a highly coordinated plan for maintaining a uniform program of vocational agriculture.

(2) Teachers are surprisingly sensitive to possible criticism in those areas relative to personal integrity and soundness of the vocational program.

(3) Teachers are apparently much more concerned with the needs and successful functioning of their own individual program than with the successful operation of a total school program.

(4) Both teachers and administrators are fundamentally in agreement with the premise that the vocational agriculture program should be expanded into the areas of non-farm agricultural occupations. Webb also reached this conclusion in his study

concerning the opinions of administrators toward the vocational agriculture program.

(5) There seems little doubt that both teachers and administrators are convinced that the Future Farmers of America organization will continue to be instrumental in motivation and guidance which stimulate participating students to become leaders in agriculture. Other studies pertaining to the FFA reviewed for this study generally accept the above assumption.

(6) Findings of the study pointed conclusively to the fact that teachers will continue to assume an effective role as educational leaders in young and adult farmer education, although this study and studies included in the review of literature did not indicate the future role of the teacher in the adult program.

(7) Particularly, teachers desire more direct assistance and supervision from the state level in curriculum development and as well as in possible standardization of agricultural mechanics equipment.

(8) It was significant that teachers and administrators expressed as great a difference of opinion relative to a major portion of areas studied within their respective groups, as that expressed between the two groups.

(9) Throughout the study, it was quite surprising to find that administrators evinced a greater acceptance of change than was shown by their teachers.

(10) Teachers and administrators are more nearly in agreement with statements concerning the supervised farm training program than with those of any other area included in this study.

(11) Teachers evidenced a more conservative attitude toward innovations in the vocational program.

(12) In certain areas of the program, teachers were so diversified in their responses that a need for in-service education and supervision was strongly indicated.

Implications of the Study

This study was undertaken to determine the nature and extent of agreement between teachers of vocational agriculture and public school administrators relative to selected areas of operation of the vocational agriculture program. Concomitantly, the study constituted an evaluation of the current program and provided somewhat of an insight into some of the more salient problems confronting agriculture, specifically, vocational agriculture. It is felt that this study will provide information that might be useful to other studies of a more detailed nature.

Inferences which may be drawn from the results of this study indicate that teachers of vocational agriculture and public school administrators do not view the role of the vocational agriculture program in the same perspective. A significant difference in the opinions and judgments of teachers and their administrators was definitely identified in twenty-seven of the thirty-six statements tested. The implication is quite strong that teachers and administrators should

develop and maintain stronger lines of communication concerning new concepts and trends relative to the vocational agriculture program and to establish joint planning sessions, wherever possible, to alleviate misunderstanding concerning the objectives of the community agricultural program.

There is also some basis for the deduction that teachers and administrators are not in concurrence among themselves about certain aspects of the program. It appears feasible to assume the need for in-service training workshops designed to provide basic background information concerning expansion of the vocational agriculture program, some of the problems involved in affecting change, and alternatives available in urbanized areas to meet the needs of the clientele served.

There is sufficient evidence to imply justification for curriculum revision in pre-service education to develop better prepared teachers of vocational agriculture, particularly as regards competence in meeting the demands for implementing and supervising student work experiences in non-farm agricultural occupations. Teacher education must provide much of the necessary leadership to effect changes in the now existing program of vocational agriculture. The need for more and closer cooperation between teacher educators, supervisors, and school administrators is strongly implied.

There is also some basis for the deduction that in certain respects the Future Farmers of America program is considered as outdated and needs revision to achieve and maintain pace with current trends and developments. A name change to Future Farmers and Agriculturalists might possibly improve the image of the organization, thereby setting the stage for a revision of objectives and purposes.

Throughout this study, an undertone could be recognized as pointing out the need for a reorganized public relations program, not only within the school system itself, but also for the benefit of lay personnel throughout the state. An informed public is more receptive to program changes; therefore, reducing conflict during the transitional period of change or modification is greatly needed. Such a public relations program must be initiated at the local level by the teacher of vocational agriculture and be approved by local administrators. A strong concern for the solicitation of the FFA and Young Farmer Chapters as well as an appeal to the local news media for the implementation of changes in the program would seem highly desirable. At the state level the Vocational Agriculture Teachers Association should be encouraged to prepare such materials and make them readily available to school administrators and interested lay people.

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APPENDICES

APPENDIX A

To the Vocational Agriculture Teacher Addressed:

SUBJECT: Research Information Form

The enclosed FORM is a part of a study being conducted by Mr. Herman Brown as a partial fulfillment of the requirements for a doctoral degree in Agricultural Education. It is designed to determine the attitude of vocational agriculture teachers and school administrators toward changes in the vocational agriculture program. This information when assembled and evaluated will represent a general attitude toward our present program with implications for possible changes that should be considered in future program planning.

I am sure that you will want to make a contribution to your profession by furnishing the information requested. Only honest and sincere responses will be of value. Neither the names of teachers nor their schools will be identified in the manuscript; therefore, responses will be confidential. Please complete the INFORMATION FORM and return it immediately. A self-addressed, stamped envelope is furnished for your convenience.

Very truly yours,

George Hurt, Director
Agricultural Education

Enclosure

APPENDIX B

To the Superientendent of Schools Addressed:

SUBJECT: Research Information Form

The enclosed FORM is a part of a study being conducted by Mr. Herman Brown as a partial fulfillment of the requirements for a doctoral degree in Agricultural Education. It is designed to determine the attitude of vocational agriculture teachers and school administrators toward changes in the vocational agriculture program. This information when assembled and evaluated will represent a general attitude toward our present program with implications for possible changes that should be considered in future program planning.

I am sure that you will want to make a contribution to your profession by furnishing the information requested. Only honest and sincere responses will be of value. Neither the names of teachers nor their schools will be identified in the manuscript; therefore, responses will be confidential. Please complete the INFORMATION FORM and return it immediately. A self-addressed, stamped envelope is furnished for your convenience.

Very truly yours,

George Hurt, Director
Agricultural Education

Enclosure

APPENDIX C

PRE - TEST

INSTRUCTIONS:

With a pencil, circle the one symbol which best represents your reaction to each statement. The symbols represent the following:

A -- The statement <u>is</u> clear, concise, to the point, and the statement appears to be understandable.
B -- The statement <u>is not</u> clear as to the exact reaction desired and the statement needs revision. (Please write comments at end of statement.)
C -- The statement can be interpreted several ways; therefore, the statement should be deleted.

A B C 1. In view of the constantly shrinking proportion of the population engaged in agricultural production, and the ever present surplus commodity problem, it seems questionalbe as to whether an increase in adult agricultural education is justified.

A B C 2. The organizational name "Future Farmers of America" should be changed to a more appropriate title.

A B C 3. Since studies show that few vocational choices are made prior to graduation from high school, the Vo-Ag program should be largely devoted to a consideration of basic principles and theories rather than develop specific occupational skills.

A B C 4. Facilities and equipment for the Vo-Ag department should be standardized by the state in order to maintain minimum acceptable standards.

A B C 5. A Vo-Ag teacher should have adequate time to supervise on-the-job-training in agricultural businesses as well as supervising the traditional supervised farm training program.

A B C 6. The need for capable leadership in agriculture is eminent. Therefore, the Vo-Ag teacher should provide career guidance and counseling in order that students may realize their fullest potential to enter the industry of agriculture.

A B C 7. It is the responsibility of the public schools to provide educational opportunities for all persons of all ages who need, desire, and can profit from agricultural training.

A B C 8. One apparent criticism of many supervised farm training programs is that much effort is given to producing champion show animals. As a result, students may often fail to recognize practical economic principles and values.

A B C 9. Membership in the FFA should be a voluntary organization available to all students in high school without regard to enrollment in Vo-Ag.

A B C 10. Vo-Ag should not be expanded to include occupational training in distributive education and trades and industry.

A B C 11. Vo-Ag should be supported exclusively by Federal and state funds.

A B C 12. A teacher can serve adult groups more effectively by serving as program coordinator for a series of meetings presented by commercial businesses and various agricultural agencies instead of organizing educational classes for young and adult farmers.

A B C 13. Membership in the FFA should be a requirement for all students enrolled in vocational agriculture.

A B C 14. Shop equipment should be shared by the Vo-Ag teacher, Industrial Arts, and other vocational teachers in order to secure maximum utilization of equipment.

A B C 15. It would appear that a Vo-Ag student might gain far more valuable work experiences in part-time training and employment in agricultural businesses rather than conducting the traditional project program.

A B C 16. An advisory council should be used by the Vo-Ag teacher in formulating objectives and long-range plans based upon needs of the community.

A B C 17. Presently, the Vo-Ag curriculum allows diversification in subject matter areas as determined by community needs; however, the curriculum should be modified to adopt a common core of subject matter required for the entire state.

A B C 18. Participation in the FFA often leads to the development of unacceptable self-centered attitudes on the part of a number of students.

A B C 19. There is an inherent value to the individual student in an association with growing plants and animals; therefore, every Vo-Ag student should be required to have a supervised farm training program.

A B C 19. There is an inherent value to the individual student in an association with growing plants and animals; therefore, every Vo-Ag student should be required to have a supervised farm training program.

A B C 20. Local school funds should be used to purchase equipment utilized in teaching vocational agriculture.

A B C 21. Many of the activities of the FFA are far too juvenile in nature to appeal to maturing young men at the upper high school level. (Ex. FFA ceremonies and wearing the blue jacket.)

A B C 22. A Vo-Ag teacher would be more effective if he also taught general science and/or biology.

A B B 23. Under present policy, a teacher of Vo-Ag is not permitted to teach other subjects in the school system, but it is believed they should be permitted to do so in schools with low enrollment in Vo-Ag.

A B C 24. The teacher of Vo-Ag actually will be a more effective teacher of high school pupils if he is maintaining an active educational program of instruction for out-of-school farmers.

A B C 25. School farms should be made available for students who are unable to provide facilities for their production enterprises.

A B C 26. The present system of employing teachers of Vo-Ag for 12 months is necessary to adequately maintain a well-rounded community program in agriculture.

A B C 27. The supervised farm training program or participating work experiences in Agri-Business should be an option available to students enrolled in Vo-Ag.

A B C 28. The local school board, local school administrators, and Vo-Ag teacher should have the permissive responibility for implementing needed changes in the local Vo-Ag program. State plans and policies should permit such flexibility.

A B C 29. Providing educational programs for people throughout life is a responsibility which should be shared by public schools.

A B C 30. Shop facilities and equipment should be maintained separately from the various vocational programs in order to maintain effective instructional programs.

A B C 31. Students of high academic standing and ability should be encouraged to enroll in the Vo-Ag program if it is their desire and interest.

A B C 32. Rapid technological change greatly increases the need for expanding the training program for young and adult farm groups.

A B C 33. Many schools are unable to provide the vocational training desired and/or needed by all students; therefore, area vocational schools have become a necessity to alleviate this problem.

A B C 34. The present FFA program should not be expanded to include girls who enroll in Vo-Ag.

A B C 35. Vo-Ag should begin at the 8th grade level.

A B C 36. Students with home shop facilities should be encouraged to develop agricultural shop projects in lieu of production projects of crops and animals.

A B C 37. Competitive activities in merchandizing and servicing practices should prove just as valuable to the student as present activities in contests, exhibitions, and public speaking.

A B C 38. Teachers should be permitted to select equipment which they believe to be best suited for instructional needs.

A B C 39. The Vo-Ag curriculum should be expanded to meet the needs of all students. This would include occupations in related fields of agriculture and not directed entirely to the operation of the farm.

A B C 40. Especially in the field of agriculture, the educational needs of adults are largely being met by competent agencies other than the public school.

A B C 41. There is a direct relationship between adequate facilities and equipment and the quality of the instructional program.

A B C 42. The primary purpose of the FFA should be the development of rural leadership.

A B C 43. Students not interested in a subject matter area being presented by the teacher should be permitted to spend this time on research into fields of their interest.

A B C 44. The present "young farmer" type program is superior to the older "part-time" class in that it places emphasis on helping rural young men develop leadership and cooperation.

A B C 45. The reorganization of vocational education at the national level has caused vocational agriculture to lose its identity which could have an adverse affect on the role of agriculture in public schools in the future.

A B C 46. An expansion of the Vo-Ag program into some areas normally taught in distributive education and trades and industry is possible without distracting from the objectives of vocational agriculture.

A B C 47. Although a limited amount of new equipment may be justified, for the most part, agriculture can be taught effectively with considerable less equipment than may be true for other vocational courses.

A B C 48. Since agriculture has become highly mechanized, at least 50% of the instructional program should be devoted to agricultural mechanics.

A B C 49. One of the factors that causes many administrators to refuse request for new equipment is failure of the teacher to maintain adequate working condition of the equipment.

A B C 50. The poultry industry has changed vastly in recent years with large feed companies supervising and financing the operation; therefore, poultry production should not be taught in communities which do not rely upon poultry as a source of major farm income.

A B C 51. The extent of involvement in fairs, shows, and contests sponsored by the FFA is a significant factor in the career choices of participating students.

A B C 52. The FFA has traditionally been involved in areas of public speaking, parliamentary procedure, and newspaper reporting. These areas should be the responsibility of the speech, English, and journalism teachers.

A B C 53. Generally speaking, the teacher of Vo-Ag has much less influence with young men after he has left high school than he did while the young man was enrolled in high school.

A B C 54. Most adult programs should be carried to the farmer through an effective program in personal service, such as vaccination, castration, and running terrace lines rather than so many field days and discussion groups.

A B C 55. One of the reasons for teacher failure to properly maintain shop equipment is inadequate pre-service training in maintenance.

A B C 56. Students desiring to maintain a close affiliation with the 4-H organization should be permitted to enroll in Vo-Ag and the FFA.

A B C 57. The primary objective of Vo-Ag should remain in the area of production agriculture.

APPENDIX D

INSTRUCTIONS:

With a pencil or pen, circle the one symbol which best represents your reaction to each statement. The symbols are scaled in this manner:

SA	A	U	D	SD
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

****

SA A U D SD 1. In view of the decreasing proportion of the population engaged in production agriculture and the surplus commodity program, it seems questionable as to whether an increase in adult agricultural education is justified.

SA A U D SD 2. The organization name "Future Farmers of America" should be changed to a more appropriate title.

SA A U D SD 3. Under present policy, a teacher of Vo-Ag is not permitted to teach other subjects in the school system, but it is believed they should be permitted to do so in schools with a low enrollment in Vo-Ag.

SA A U D SD 4. Numerous studies show that few vocational choices are made prior to graduation from high school; therefore, the Vo-Ag program should be largely devoted to basic principles and theories rather than developing specific occupational skills.

SA A U D SD 5. Teaching facilities and equipment for the Vo-Ag department should be standardized by the state in order to maintain minimum acceptable standards.

SA A U D SD 6. A criticism of some supervised farm training programs is that much effort is given to producing champion show animals. As a result, students may often fail to recognize practical principles of economics and values.

SA A U D SD 7. A teacher can serve adult groups effectively by serving as program coordinator for a series of meetings presented by commercial businesses and

various agricultural agencies instead of organizing educational classes for young and adult farmers.

SA A U D SD 8. Membership in the FFA should be a requirement for all students enrolled in vocational agriculture.

SA A U D SD 9. The present system of employing a teacher of Vo-Ag for 12 months is necessary to adequately maintain a well-rounded community program in agricultural improvement.

SA A U D SD 10. The Vo-Ag curriculum allows diversification in subject matter areas as determined by community needs; however, the curriculum should be modified to adopt a common core of subject matter required for the entire state.

SA A U D SD 11. Shop equipment should be shared by the Vo-Ag teacher, Industrial Arts teacher, and other vocational teachers in order to secure maximum utilization of equipment.

SA A U D SD 12. It would appear that some Vo-Ag students might gain far more valuable work experiences in part-time training and employment in agricultural businesses rather than conducting the traditional supervised farming program.

SA A U D SD 13. The teacher of Vo-Ag actually will be a more effective teacher of high school pupils if he is maintaining an active educational program of instruction for out-of-school farmers.

SA A U D SD 14. Participation in the FFA often leads to the development of unacceptable self-centered attitudes on the part of a number of students.

SA A U D SD 15. Students exhibiting high academic ability should be encouraged to enroll in the Vo-Ag program if it is their interest and desire.

SA A U D SD 16. A Vo-Ag teacher would be more effective if he also taught general science and/or biology in addition to teaching agriculture.

SA A U D SD 17. There is a direct relationship between adequate facilities and equipment and the quality of the instructional program.

SA A U D SD 18. There is an inherent value to the individual student in an association with growing plants and animals; therefore, every Vo-Ag student should be required to have a supervised farm training program.

SA A U D SD 19. Especially in the field of agriculture, the educational needs of adults are largely being met by competent agencies other than the public school.

SA A U D SD 20. Many of the activities of the FFA are far to juvenile in nature to appeal to maturing young men at the upper high school level.

SA A U D SD 21. Vo-Ag should begin at the 8th grade level.

SA A U D SD 22. Extensive involvement in fairs, shows, and contests sponsored by the FFA significantly influences career choices by participating students.

SA A U D SD 23. Although a limited amount of new equipment may be justified, for the most part, agriculture can be taught effectively with considerably less equipment than may be true for other vocational courses.

SA A U D SD 24. The supervised farm training program or participating work experiences in agri-business should be offered as options available to students enrolled in Vo-Ag.

SA A U D SD 25. Generally speaking, the teacher of Vo-Ag has much less influence with young men after they have left high school than he did while the young men were enrolled in school.

SA A U D SD 26. The present FFA program should be expanded to include girls who enroll in Vo-Ag.

SA A U D SD 27. An expansion of the Vo-Ag program into some areas normally taught in Industrial Co-op Training, Distributive Education and Trades and Industry is possible without distracting from the objectives of vocational agriculture.

SA A U D SD 28. The Vo-Ag curriculum should be expanded to meet the needs of all students. This would include occupational training in related fields and non-farm agriculture as contrasted with many curricula presently directed to the operation of the farm.

SA A U D SD 29. One of the reasons for teachers failing to properly maintain shop equipment is inadequate pre-service training in maintenance of equipment.

SA A U D SD 30. The Vo-Ag teacher would have adequate time to supervise on-the-job training in agricultural businesses during school hours as well as supervising the traditional supervised farm training program.

SA A U D SD 31. Most adult programs should be carried to the farmer through an effective program in personal service, such as vaccination, castration, running terrace lines rather than through field days and discussion groups.

SA A U D SD 32. Students desiring to maintain a close affiliation with the 4-H Club organization should be permitted to enroll in Vo-Ag and the FFA.

SA A U D SD 33. Many schools are presently limited in providing the vocational training desired and/or needed by all students; therefore, area vocational schools have become a necessity to alleviate this problem.

SA A U D SD 34. Since agriculture has become highly mechanized, at least 50% of the instructional program in Vo-Ag should be devoted to agricultural mechanics.

SA A U D SD 35. Shop facilities and equipment should be maintained and operated separately from the various vocational programs in order to insure effective instructional programs.

SA A U D SD 36. Students with home shop facilities should be encouraged to develop agricultural shop projects in lieu of production projects of crops and animals.

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VITA

Herman D. Brown

Candidate for the Degree of

Doctor of Education

Thesis: AN INVESTIGATION OF ATTITUDES AND OPINIONS HELD BY TEACHERS OF VOCATIONAL AGRICULTURE AND THEIR ADMINISTRATORS REGARDING SELECTED AREAS OF THE VOCATIONAL AGRICULTURE PROGRAM

Major Field: Education

Biographical:

Personal Data: Born at Sadler, Texas, February 3, 1932, the son of Olin Webster and Mildred Lucy Brown.

Education: Attended elementary school in Southmayde and graduated from Whitesboro High School in Whitesboro, Texas, in 1948. In the fall of 1948 he matriculated at the Arlington State College and transferred to Texas A & M University for the spring semester, 1951. Received the Bachelor of Science degree with a major in Agricultural Education in January, 1953. In September, 1961, he entered the Graduate School at Texas A & M University from which he received the Master of Education degree with a major in Agricultural Education in August, 1962. Additional graduate work was completed at Texas A & M University during the 1962-63 school year. Requirements for the Doctor of Education degree were completed at Oklahoma State University in August, 1965.

Professional Experience: The writer entered the United States Army in February, 1953, as an officer in the Infantry and remained on active duty until February, 1958. He served sixty months with the army before being placed on inactive status as a Captain in the Army Reserve. The writer taught vocational agriculture at Callisburg, Texas, for three years. He was graduate assistant in the Agricultural Education Department at Texas A & M University during 1961-62, and an instructor in the same department during 1962-63. He was graduate assistant in the Agricultural Education Department at Oklahoma State University during 1963-64. Since August, 1964, he has been principal of the Ada Henedrson Junior High School at Cameron, Texas.