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ATTITUDE OF TEACHERS AND STUDENTS TO THE ROLE OF THE
FUTURE FARMERS OF AMERICA ORGANIZATION
IN VOCATIONAL AGRICULTURE

By
JOE PAUL BAIL

AN ABSTRACT

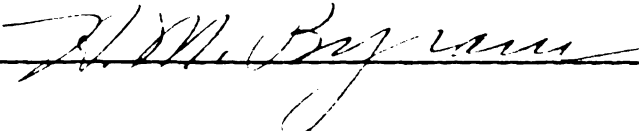
Submitted to the School for Advanced Graduate Studies of
Michigan State University of Agriculture and
Applied Science in partial fulfillment of
the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Teacher Education

1958

Approved



Purpose. To compare the attitudes of teachers of vocational agriculture in West Virginia on selected concepts of the role of the Future Farmers of America organization to (a) the attitudes of teachers of vocational agriculture in the North Atlantic Region; and (b) the attitudes of students of vocational agriculture in West Virginia.

Method. From a review of the literature a list of concepts relative to the role of the FFA in vocational agriculture was prepared in the form of an attitude inventory. The sample groups were composed of 53 teachers in West Virginia, 37 teachers in the North Atlantic Region, and 247 students in West Virginia. The respondents expressed their attitude along a five point scale. The reliability of the attitude inventory was checked by a retest, with a correlation of $+.997$ in the teacher group and $+.979$ in the student group. The attitudes were then compared by the use of the chi-square technique.

Findings and Interpretations. Teachers of vocational agriculture in West Virginia and the North Atlantic Region showed remarkable similarity in attitude toward the concepts in the attitude inventory. Significant differences in attitude were found between teacher groups on four of the fifty-four concepts. These differences were

in degree of agreement and not direction of agreement. Teacher attitude, in both groups, closely paralleled present practices in the organization with reference to membership, activities, adviser-member relationship, chapter meetings, relationship of local chapter to the state and national organization, and general concepts.

Attitudes of teachers and students in West Virginia were significantly different on 27 of the 54 concepts. 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 attitude in West Virginia was not significantly different on those concepts relating to activities, time and frequency of meetings, and methods of conducting meetings.

The teachers and students studied had different attitudes as to how the FFA should function. If the objectives of the organization are to be fulfilled, teachers should be cognizant of member attitude toward the various aspects of the organization. Efforts should then be made to minimize or resolve any differences that exist between teachers and students in order that the FFA become an integral part of the instructional program of vocational education in agriculture.

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A THESIS

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ACKNOWLEDGMENTS

The author wishes to express his sincere appreciation to Professor Harold M. Byram, Chairman of his Guidance Committee, for his assistance and guidance during this study. Appreciation is expressed to Professor Harold Dillon, Professor Raymond Hatch, and Professor H. Paul Sweany for their advice and help in making the study. Professor Raymond Clark also contributed to the study.

Sincere appreciation is expressed to the teachers of agriculture in West Virginia, Delaware, Maryland, New Hampshire, New Jersey, and Vermont who participated in the study. To students of vocational agriculture in West Virginia, without whose cooperation this study would have been impossible, the author is deeply indebted. The jury members also contributed graciously of their time and effort and it is gratefully acknowledged.

The author further expresses appreciation to his wife, Nelma R. Bail, for her patience, understanding, and assistance in carrying out the study.

TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND METHOD.	1
The problem	1
Hypothesis.	1
The Future Farmers of America organization.	2
Importance of the study	5
Definition of terms	8
Planning the Study.	9
Preparing the attitude inventory.	9
Sampling students to use in the study . .	11
Characteristics of the student sample . .	12
Sampling teachers in West Virginia to use in the study.	13
Characteristics of the teacher population in West Virginia.	14
Sampling teachers in the North Atlantic Region.	16
Conducting the Study.	17
Securing student responses to the atti- tude inventory.	17
Securing teacher response to the inventory	18

CHAPTER	PAGE
Testing the attitude inventory.	19
Limitations of the study.	20
Assumptions	21
Organization of the remainder of the report .	21
II. REVIEW OF LITERATURE.	23
Literature on Attitude Inventories.	23
Literature on Vocational Agriculture and on Future Farmers of America Organization. . .	29
III. PRESENTATION AND ANALYSIS OF THE RESULTS. . . .	36
Teacher Sample.	37
Concepts on Which Teachers in West Virginia and Teachers in the North Atlantic Region Showed Significant Differences.	38
Concepts on Which Teachers in West Virginia and Teachers in the North Atlantic Region Showed no Significant Differences	41
Membership.	42
Activities.	43
Adviser-member relationships.	44
Relationship of local chapter to state and national organizations.	45
Chapter meetings.	46
General	46
Student Sample.	47

CHAPTER	PAGE
Concepts on Which Teachers in West Virginia and Students in West Virginia Showed Very Significant Differences	48
Concepts on Which Teachers in West Virginia and Students in West Virginia Showed Significant Differences	64
Concepts on Which Teachers in West Virginia and Students in West Virginia Showed no Significant Differences	73
Membership.	74
Activities of the FFA	74
Adviser-member relationship	75
Relationship of local chapter to state and national organization	76
Chapter meetings.	77
General	78
IV. SUMMARY AND CONCLUSIONS	81
Summary of Teacher Attitude to FFA Concepts .	81
Summary of Student Attitude to FFA Concepts .	84
Conclusions	87
Implications of the Study	89
Suggestions for Future Studies.	92
SELECTED BIBLIOGRAPHY	94
APPENDIX A. Attitude Inventory	101

APPENDIX B.	List of Jury Members	108
APPENDIX C.	Letter to Teachers in West Virginia. . .	109
APPENDIX D.	Letter to Teachers in North Atlantic Region	110
APPENDIX E.	Response of Teachers in West Virginia to the Attitude Inventory	111
APPENDIX F.	Response of Teachers in the North Atlantic Region to the Attitude Inventory.	112
APPENDIX G.	Table of Chi Squares--Teachers vs. Teachers Response to the Attitude Inventory.	113
APPENDIX H.	Responses of Students in West Virginia to the Attitude Inventory.	114
APPENDIX I.	Table of Chi Squares--Teachers vs. Student Response in West Virginia to the Attitude Inventory	115
APPENDIX J.	Scores on Test--Retest to Teachers in West Virginia.	116
APPENDIX K.	Scores on Test--Retest to Students in West Virginia.	117
APPENDIX L.	List of High Schools in West Virginia from which Teachers Cooperated in the Study.	118

APPENDIX M.	List of High Schools by States in the	
	North Atlantic Region from which	
	Teachers Cooperated in the Study . . .	119
APPENDIX N.	List of High Schools in West Virginia	
	from which Students Cooperated in	
	the Study...	121

LIST OF TABLES

TABLE		PAGE
I.	Comparison of Sample and Unsampld Student Groups on Year in High School	12
II.	Comparison of Sample and Unsampld Student Groups on Year in FFA	13
III.	Number of Years of Teaching Experience of Sample and Unsampld Groups of Teachers . .	14
IV.	Degrees Held by Sample and Unsampld Groups of Teachers	15
V.	Former Membership in the FFA by Sample and Unsampld Group of Teachers	16
VI.	Response of Teachers in West Virginia and Teachers in The North Atlantic Region to the Concept, "Officers of local chapters should be regularly enrolled in high school".	38
VII.	Response of Teachers in West Virginia and Teachers in The North Atlantic Region to the Concept, "The FFA chapter should sponsor recreational activities for its members". .	39
VIII.	Response of Teachers in West Virginia and Teachers in The North Atlantic Region to the Concept, "All activities of the vocational agriculture department should be publicized through the FFA organization"..	40

TABLE

PAGE

IX.	Response of Teachers in West Virginia and Teachers in The North Atlantic Region to the Concept, "Regular FFA meetings should be held at a time that does not conflict with other classes"	41
X.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Membership in the FFA should be voluntary".	49
XI.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Membership should be open to both boys and girls".	50
XII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Membership should be limited to those en- rolled in vocational agriculture in the public secondary school".	51
XIII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Active membership should be continued until age 21 or 3 years after graduation from high school, whichever is longer".	52

TABLE

PAGE

XIV.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Officers of local chapters should be regularly enrolled in high school".	53
XV.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The vocational agriculture teacher should act in an advisory capacity only"	53
XVI.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The activities of the local chapter should be in harmony with the policies of the local school"	54
XVII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The activities of the local chapter should be in harmony with those of the national organization"	55
XVIII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The FFA chapter should confine its money raising activities to those of an agri- cultural character"	56

TABLE

PAGE

XIX.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "All FFA activities should be confined to the local level".	57
XX.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The FFA chapter should cooperate with other school organizations"	58
XXI.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "All activities of the vocational agri- culture department should be publicized through the FFA organization"	58
XXII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "District, state and national activities should be encouraged"	59
XXIII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "FFA Awards should be based on progress and achievement in a selected activity"	60
XXIV.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Time for planning FFA activities should be taken during vocational agriculture classes"	61

TABLE	PAGE
XXV. Response of Teachers in West Virginia and Students in West Virginia to the Concepts, "Regular class time should be used for FFA activities"	62
XXVI. Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The local chapter should have the right to prescribe its own qualifications for membership"	63
XXVII. Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The national organization should determine the number of American Farmer degrees to award".	64
XXVIII. Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The activities of the FFA chapter should be carried out by the students, with advice from the vocational agriculture teacher".	66
XXIX. Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The vocational agriculture teacher should carry out those activities in which members are likely to do a poor job".	67

TABLE

XXX.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The vocational Agriculture teacher should have the right to forbid activities to which he is opposed"	67
XXXI.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The FFA chapter should sponsor cooperative buying and selling"	68
XXXII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The FFA chapter should cooperate with the 4-H Club organization in community activities"	69
XXXIII.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "All publicity should be directed to the individual FFA member or to the chapter". . .	70
XXXIV.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "Awards should be designed to provide additional education"	71

TABLE

PAGE

XXXV.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "FFA members should devote additional time to carrying out chapter activities (in addition to regularly scheduled vocational agriculture class)"	72
XXXVI.	Response of Teachers in West Virginia and Students in West Virginia to the Concept, "The national convention should be restricted to official state delegates".	73

CHAPTER I

THE PROBLEM AND METHOD

This has been a study of the attitudes of teachers of agriculture and students of agriculture to the role of the Future Farmers of America organization in vocational agriculture.

The Problem. The problem may be stated in question form as follow: What are the significant differences in attitude of teachers of vocational agriculture and students of vocational agriculture to selected concepts of the role of the Future Farmers of America organization in vocational agriculture? It will be the purpose of this study (1) to compare the attitudes of teachers of agriculture in West Virginia to those of selected teachers of agriculture in the North Atlantic Region, and (2) to compare the attitudes of teachers of agriculture in West Virginia to those of students of agriculture in West Virginia to these concepts.

Hypothesis. Based on the experiences and observations of the investigator, the hypothesis is made that there are differences in the attitudes of teachers of agriculture and students of agriculture to the role of the Future Farmer of America organization in vocational agriculture. It is felt that these differences exist among groups of teachers,

and are even more pronounced between groups of teachers and students. If this is true, then it is felt that a comparison of these differences would be of value to an understanding of the role of the FFA organization as it operates within the framework of the vocational education in agriculture program.

Future Farmers of America Organization. The Future Farmers of America is an organization of students enrolled in vocational agriculture in the public secondary schools of the United States, Hawaii, and Puerto Rico. The organization, commonly called the FFA, is a part of the local high school program in vocational agriculture. According to the provisions of the National Vocational Acts, it is an intra-curricular part of the instruction. The local group is known as a chapter, with the vocational agriculture teacher designated as the adult adviser. The organization is boy-controlled and operated by a set of student officers, with the advice of the local teacher of vocational agriculture. Within each of the forty-eight states, Hawaii, and Puerto Rico are chartered state associations. On the national level, the organization is governed by a board of student officers with the advice of a board of adult directors. The national headquarters are in the U. S. Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

According to the official manual of the organization, the primary aim of the Future Farmers of America is the development of agricultural leadership, cooperation, and citizenship.¹ More specific purposes are listed as follow:²

1. To develop competent, aggressive, rural and agricultural leadership.
2. To create and nurture a love of country life.
3. To strengthen the confidence of farm boys and young men in themselves and their work.
4. To create more interest in the intelligent choice of farming occupations.
5. To encourage members in the development of individual farming programs and establishment in farming.
6. To encourage members to improve the farm home and its surroundings.
7. To participate in worthy undertakings for the improvement of agriculture.
8. To develop character, train for useful citizenship, and foster patriotism.
9. To participate in cooperative effort.
10. To encourage and practice thrift.

¹Official Manual. Future Farmer of America Organization, Washington, D. C., 1957, p. 12.

²Ibid., p. 6.

11. To encourage improvement in agriculture.
12. To provide and encourage the development of organized rural recreational activities.

The official act incorporating the Future Farmers of America in the 81st Congress state as follow:³

Sec. 3. The objects and purposes of the corporation shall be--

- (1) to create, foster, and assist subsidiary chapters composed of students and former students of vocational agriculture in public schools qualifying for Federal reimbursement under the Smith-Hughes Vocational Act or the Vocational Education Act of 1947 (Public Law 347, Sixty-fourth Congress, and Public Law 586, Seventy-ninth Congress), and associations of such chapters in the several States and Territories of the United States;
- (2) to develop character, train for useful citizenship, and foster patriotism, and thereby to develop competent, aggressive rural and agricultural leadership;
- (3) to create and nurture a love of country life by encouraging members to improve the farm home and its surroundings, to develop organized rural recreational activities, and to create more interest in the intelligent choice of farming occupations;
- (4) to encourage the practice of thrift;
- (5) to procure for the distribution to State associations, local chapters, and members all official Future Farmers of America supplies and equipment;
- (6) to publish an official magazine and other publications for the members of the corporation;
- (7) to strengthen the confidence of farm boys and young men in themselves and their work, to encourage members in the development of individual farming programs, and to promote their permanent establishment in farming by
 - (a) encouraging improvement in scholarship;
 - (b) providing

³Public Law 740, 81st Congress, S. 2868, Sec. 3.

prizes and awards to deserving students who have achieved distinction in vocational agriculture, including farm mechanics activities on a local, state, or national basis; and (c) assisting financially, through loans or grants, deserving students in all-day vocational agriculture classes and young farmers under thirty years of age who were former students in all-day vocational agriculture classes in becoming satisfactorily established in a farming occupation; and

(8) to cooperate with others, including state boards of vocational education, in accomplishing the above purposes; and to engage in such activities, consistent with the foregoing purposes, determined by the governing body to be for the best interests of the corporation.

Under provisions of the Vocational Education Act of 1946,⁴ the Future Farmers of America was recognized as an integral part of the instructional program in vocational agriculture. Federal funds were officially recognized as being available for use in carrying out local, state, and national activities. This was further implemented in 1955 by a publication from the United States Department of Health, Education, and Welfare.⁵ One of the seven major objectives listed in this publication was to participate in rural leadership activities which had reference to the Future Farmers of America.

Importance of the Study. The Future Farmers of America

⁴Public Law 586, 79th Congress, S. 619, Sec. 3, 1.

⁵Educational Objectives In Vocational Agriculture. Vocational Division Monograph No. 21, Revised 1955, U. S. Department of Health, Education, and Welfare, Washington, D. C., p. 4.

was organized on the national level in 1928.⁶ Organizations on the state level preceded the national organization in many states, with the parent organization being patterned after the Future Farmers of Virginia. The organization in West Virginia was the twelfth to be admitted to the national group.⁷ Since more than a quarter of a century has elapsed from the time the organization was formed in West Virginia, several significant facts stand out. The membership has increased from 518 in 1929 to 5,485 in 1955. A study by Hill⁸ showed that teachers in West Virginia spent 9.0 per cent of their class time in activities of the organization. Combined with other class activities, they comprised 50.0 per cent of the total time of teachers of agriculture. Sweany,⁹ in a study in Michigan, found that teachers of agriculture were spending 1.7 hours per week in FFA activities outside the regular

⁶Agricultural Education Magazine, Vol. I, No. 1, January 1929, p. 8-9.

⁷Official Manual, Future Farmers of America Organization, Washington, D. C., 1957.

⁸C. W. Hill, "Time Used for Professional Activities by Vocational Agriculture Teachers in West Virginia--1947-48". Unpublished doctor's thesis, Cornell University, Ithaca, 1949, 413 p.

⁹H. P. Sweany, "Use of Time by Teachers of Vocational Agriculture in Michigan". Department of Vocational Education, Michigan State College, East Lansing, 1945. 48 p.

school day. Taubert¹⁰ found that teachers of agriculture in West Virginia used 22.97 per cent of their travel funds in working with FFA activities.

Meaders,¹¹ in a comprehensive historical review covering the period of 1836 to 1954, found that a national organization of farm boys was advocated long before the FFA was founded. Some leaders in the period from 1905-13 felt that an organization should be established outside the school. Following this, emphasis was given to establishing clubs or organizations as a part of the agricultural education program. However, the leadership for such an organization did not crystallize until the founding of the FFA in 1928.

Additional studies and articles in professional journals indicate the following points with regard to the importance of this aspect of the program of vocational education in agriculture.

1. A considerable amount of the time of the teacher of vocational agriculture is devoted to the FFA organization.

¹⁰Reno L. Taubert, "Travel and Its Use in Conducting the Vocational Agriculture Program in West Virginia", Unpublished Master's thesis, West Virginia University, Morgantown, 1953, 70 p.

¹¹Otis Donald Meaders, "Practices Advocated by Selected National Agencies and Organizations for Implementing Local Programs of Vocational Agriculture, 1836-1954". Unpublished Doctor's thesis, Michigan State University, East Lansing, 1957.

2. Many different types of activities are engaged in by FFA chapters.
3. Teachers of agriculture indicate in their writings in professional journals that they are concerned about the amount of time necessary to carry out FFA activities.
4. Literature on the subject is limited largely to personal experiences of teachers of agriculture in regard to FFA activities.
5. The role of the FFA organization has not been clearly defined in the literature in professional journals.
6. The attitude of boy members of the organization has not been determined in studies to date.

Definition of Terms. For the purposes of this study, the following definitions are assumed to be pertinent and relative.

Attitude. A person's position or bearing which shows his feeling on a given matter. As adapted from Thurstone,¹² this conceives attitude as being the sum total of a respondent's inclinations and feelings, prejudices or biases, preconceived notions, ideas, fears, and convictions.

Future Farmers of America Organization. The

¹²Louis L. Thurstone, The Measurement of Attitude, The University of Chicago Press, Chicago, 1929, p. 6.

national organization of students studying vocational agriculture, commonly called the FFA.

Chapter. The organization of Future Farmers of America in the local high school.

High School Students. The students who are regularly enrolled for instruction in vocational agriculture in the public secondary schools.

Secondary School. The public schools offering instruction from the 9th through 12th grades.

Vocational Agriculture. The instruction in agriculture in the local high school under provisions of the National Vocational Acts.

Adviser. The local teacher of vocational agriculture in the public secondary schools.

State Association. The organization of local chapters combining to form a state organization.

National Organization. The organization of state associations combining on a national level to form the national organization.

PLANNING THE STUDY

Preparing the Attitude Inventory.¹³ A review of the literature pertaining to the Future Farmers of America organization

¹³See Appendix A. Attitude Inventory.

was made. This included a complete review of articles appearing in The Agricultural Education Magazine from Volume 1, No. 1, in November 1928, to Volume XXVII, No. 12, June 1955, inclusive.

In addition, the official manual of the Future Farmers of America organization was reviewed with reference to practices and policies currently in effect in the organization. This publication contains the constitution and by-laws under which the organization operates. Selected state FFA organizations were also contacted to secure copies of statements of policies used in the operation of the organization in those states. A list of eighty-eight concepts based on these readings was then prepared and submitted to the jury¹⁴ of agricultural education leaders in the United States. The jury members were asked to evaluate the concepts as regards (1) clarity, and (2) identification to the problem being studied. Concepts on which three or more jury members expressed negative evaluations with regard to these two points were deleted from the inventory. This left sixty-six concepts meeting with the approval of the jury. The instrument was then submitted to the investigator's Guidance Committee for evaluation. Additional concepts were deleted and revisions made in the remaining concepts. The final instrument

¹⁴See Appendix B. List of Jury Members.

contained fifty-four concepts which covered the major areas of the FFA organization. It was then prepared in the form of an Attitude Inventory with the respondents to indicate their feeling toward the concepts on a five point scale, ranging from Strongly Agree to Agree to Undecided to Disagree to Strongly Disagree.

Sampling Students to Use in the Study. One hundred and four high schools in West Virginia offered instruction in vocational agriculture during the 1955-56 school year. The decision was made to take a 20 per cent sampling of secondary schools in West Virginia in which vocational agriculture was taught and a local chapter of Future Farmers was chartered and active. It was further decided to use the students enrolled in the third and fourth year of vocational agriculture since they would have a minimum of two years experience in the FFA organization. This gave a population of 1574 students. A 20 per cent random sampling of the 104 schools was made. The schools were given a number and drawn from a hat. The first 21 schools drawn were used in the sample. This resulted in a population of 264 students who were enrolled in vocational agriculture. All twenty-one schools participated in the study with 247 students completing the instrument. Seventeen students, or 6.4 per cent, were absent on the day the instrument was

completed. This gave 93.6 per cent as completing the instrument.

Characteristics of the Student Sample. The characteristics of the student sample in comparison with the unsampled group of students on the basis of year in high school is given in Table I.

TABLE I
COMPARISON OF SAMPLE AND UNSAMPLED STUDENT
GROUPS ON YEAR IN HIGH SCHOOL*

Characteristic	Sample Group		Unsampled Group		Total Number
	Number	Per cent	Number	Per cent	
Year in High School-3rd.	157	63.5	847	64.7	1004
Year in High School-4th.	90	36.5	463	35.3	553
Unknown	(17)	--	0	--	(17)
Sub-total	264	--	1310	--	1574

* Figures based on the Annual Report of the State Supervisor of Agricultural Education, State Board of Education, Charleston, West Virginia, 1956.

It can be readily observed, on a percentage basis, that the sample and unsampled group were comprised of about the same percentage of third and fourth year students. No differences exist on this characteristic between the two groups of students.

An analysis of the student population with reference to year in the FFA organization is presented in Table II.

TABLE II
COMPARISON OF SAMPLE AND UNSAMPLED STUDENT
GROUPS ON YEAR IN FFA*

Characteristic	Sample Group		Unsampled Group		Total Number
	Number	Per cent	Number	Per cent	
Year in FFA-3rd.	140	56.7	752	57.4	892
Year in FFA-4th.	107	43.3	558	42.6	665
Unknown	(17)	--	0	--	(17)
Sub-total	264	--	1310	--	1574

* Figures based on the Annual Report of the State Supervisor of Agricultural Education, State Board of Education, Charleston, West Virginia, 1956.

By observing Table II, it can readily be seen that very little differences exist between the two groups of students on the characteristic of year of membership in the FFA. On the basis of these two characteristics, it is concluded that the student sample used in the study represents a true sample of the student population.

Sampling Teachers in West Virginia to Use in the Study. A random sample of 50 per cent of the secondary schools in West Virginia in which vocational agriculture was taught

constituted the sample. With a universe of 104 schools this gave 52 schools, with a total of 54 teachers. Again, each school in the state was given a number with the sample drawn from a hat. The advisers in all but one school completed the instrument, or 98.1 per cent.

Characteristics of the Teacher Population in West Virginia.

The teachers in the sample and unsampled group had the following characteristics with regard to years of teaching experience.

TABLE III

NUMBER OF YEARS OF TEACHING EXPERIENCE OF SAMPLE
AND UNSAMPLED GROUPS OF TEACHERS*

Number of Years Experience	Sample Group	Unsampled Group
1 year or less	3	5
2 to 5 years	3	5
6 to 10 years	21	16
11 to 15 years	7	6
16 to 20 years	7	6
21 to 25 years	2	5
26 or more years	11	11
Total	54	54
Average No. years exp.	13.53	12.92
Median years of exp.	10.00	11.00

* Figures based on the Annual Report of the State Supervisor of Agricultural Education, State Board of Education, Charleston, West Virginia. 1956.

Although some differences exist with reference to number of years of teaching experience between the sample and unsampled group, the average number of years and median years of experience are quite comparable.

The degrees held by the sample and unsampled groups of teachers are presented in Table IV.

TABLE IV
DEGREES HELD BY SAMPLE AND UNSAMPLED
GROUPS OF TEACHERS*

Degree	Sample Group	Unsampled Group
B.S. Degree in Agriculture	24	25
M.S. or M.A. Degree	30	29
Total	54	54

* Figures based on the Annual Report of the State Supervisor of Agricultural Education, State Board of Education, Charleston, W. Va. 1956.

A very close relationship exists between the sample and unsampled groups of teachers with reference to the kind of degrees held.

A comparison of teacher groups on the characteristic of former membership in the FFA organization should also help to identify the two groups. Table V presents these data.

TABLE V
FORMER MEMBERSHIP IN THE FFA BY SAMPLE AND
UNSAMPLED GROUPS OF TEACHERS*

Characteristic	Sample Group		Unsampled Group	
	Yes	No	Yes	No
Membership in FFA	17	37	19	35
Sub-totals		54		54

* Figures based on the Annual Report of the State Supervisor of Agricultural Education, State Board of Education, Charleston, W. Va. 1956.

Again, very slight difference exists with regard to former membership in the FFA by the sample and unsampled groups of teachers. Based on these three characteristics, it is concluded that the sample group represents a true sample of the teacher universe.

Sampling Teachers in the North Atlantic Region. The North Atlantic Region is composed of the following states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia. Since West Virginia was already being used in the study, a sampling of the remaining states was taken. The names of the remaining states were put in a hat and drawn out. This resulted in Delaware, Maryland, New Hampshire, New Jersey, and Vermont being chosen. A 20

per cent sampling of teachers, with the numbers drawn from a hat was taken. This gave a population of 39 teachers of whom 37 responded to the instrument, or 94.8 per cent. No attempt was made to determine the characteristics of the teacher group in the region.

CONDUCTING THE STUDY

Securing Student Responses to the Attitude Inventory. A visit was made to each vocational agriculture teacher in the schools selected. The purposes of the instrument and the proposed study were outlined. Each teacher had the choice of participating or not participating in the study with his students. All chose to cooperate. Arrangements were then made for a follow-up visit to the vocational agriculture department to administer the attitude inventory to third and fourth year students. In nearly every case, these students were enrolled in the same vocational agriculture class where the third and fourth year programs are alternated by years. Approximately one hour or one school period was devoted to completing the instrument. Conditions under which the instrument were completed were identical for all students in a given school. Students who were absent or otherwise not in class did not complete the instrument. Students were given the same instructions for completing the instrument in all schools. The

investigator was introduced by the teacher and then presented the instrument. This pattern was followed in 19 of the 21 schools. In two schools, it was impossible to make arrangements for the investigator to be present. A conference was held with these two teachers who, in turn, presented the instrument to their students at a later date, under conditions similar to those in the other schools.

Securing Teacher Response to the Inventory. Each teacher in West Virginia who was randomly chosen to cooperate in the study was invited by letter¹⁵ or by personal contact to participate in the study. Each teacher was asked to complete the attitude inventory and return it in an enclosed stamped envelope. One follow-up letter was written to teachers and personal contacts were made when the investigator was in the field. Fifty-three of the fifty-four teachers in the sample completed the instrument.

Teachers in the North Atlantic Region were also invited by letter to participate in the study.¹⁶ A second letter with a personal appeal was written to those teachers who had not returned the instrument. No teacher was asked to sign his name. Postmarks were used as the basis for determining whether or not the instrument was returned.

15. See Appendix C.

16. See Appendix D.

State supervisors of agricultural education were contacted prior to the study and permission was granted to send the instrument to the teachers in the various states. Thirty-seven of the thirty-nine teachers in the five states randomly chosen completed the instrument.

Testing the Attitude Inventory. The jury technique was used in checking the validity of the attitude inventory. A prepared list of concepts was submitted for evaluation. Jury members were asked to give their opinion as to whether or not the various items were clear in expression and if they were relevant to the problem under study. Items which were marked as being questionable or irrelevant by three or more jury members were deleted from the inventory. Revisions were made in the wording of others that remained in the study. The final subjective validation was made by members of the writer's Guidance Committee.

The reliability of the inventory was determined by a retest after a time lapse of six to eight months.¹⁷ Eleven of the fifty-three teachers in West Virginia completed the retest. Total scores on each item of the attitude inventory were correlated on a group basis. The correlation coefficient on the two sets of scores was

¹⁷See Appendix J for scores on test-retest of teachers in West Virginia.

+ .997, with an \bar{X} value of 10.69 and \bar{Y} value of 10.54. On this basis, it is concluded that the inventory was reliable.

Forty-four students from four of the twenty-one high schools in West Virginia also submitted to a retest.¹⁸ The correlation coefficient for the group was + .979, with an \bar{X} value of 26.59 and \bar{Y} value of 27.22. It is felt that these results showed the inventory to be very highly reliable.

According to Kelly,¹⁹ a correlation coefficient of .90 is necessary for evaluating differences in the level of group accomplishments, where two or more measures or tests are made. Both of these correlations surpass this level.

Limitations of the Study. This study was confined to the public high schools of West Virginia which offered instruction in vocational agriculture and had an active chapter of Future Farmers of America during the school year 1955-1956. Selected teachers in West Virginia and in the North Atlantic Region were used as a basis for comparison. It was further limited to determining the attitude of selected advanced students who were enrolled for the third and

¹⁸See Appendix K for scores on test-retest of students in West Virginia.

¹⁹Truman L. Kelly. Interpretation of Educational Measurements, World Book Company, N. Y., 1927, p. 84.

fourth year of instruction in vocational agriculture. The study is limited by the experiences and training received by these students in the Future Farmers of America organization. The attitudes expressed by teachers were limited based on their experience and training in working with the Future Farmers of America organization.

Assumptions. The following assumptions were made with respect to the study:

1. That the FFA organization should be an integral part of the vocational agriculture program in the public secondary schools.
2. That the activities of the FFA organization must be in harmony with the vocational agriculture program.
3. That the FFA must be in harmony with the local objectives in the secondary school.
4. That the proper role of the FFA organization is yet to be determined.

Organization of the Remainder of the Report. The second chapter of the report will contain the Review of Literature. This chapter will emphasize those studies dealing with attitude inventories and previous studies on attitudes as they relate to Future Farmers of America and vocational agriculture.

Chapter III will present the findings of the study with reference to student and teacher attitude to the role of the FFA in vocational agriculture. Emphasis will be placed on those concepts in which student and teacher attitude are significantly different.

Chapter IV will present the summary and conclusions based on the data obtained from all three groups. It will also present the implications of this study with suggestions for future research in this area. The Bibliography and Appendix will conclude the manuscript.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents a review of selected literature related to the study undertaken. The literature reviewed included those studies relating to attitude research and to the Future Farmers of American organization as a component part of the program of instruction in vocational agriculture. No attempt has been made to include a large number of studies in this review of literature. Rather, it has been the aim to include those studies which have laid the foundation for attitude research. The purpose of this chapter is to present a basis for this type of research work. Studies on attitude research and studies in agricultural education have been included which have bearing on the problem under study.

Literature on Attitude Inventories. One of the first studies on attitude research was by Thurstone¹ in 1929. He developed an attitude scale which consisted of a series of statements of opinions each of which is allocated to a particular point on a base line. According to Thurstone,

¹L. L. Thurstone and E. J. Chave. The Measurement of Attitudes, The University of Chicago Press, Chicago, Illinois, 1929, pp. 16-17.

if enough statements are made, it is possible to select a list of forty or fifty opinions so chosen that they represent an evenly graduated series of opinions of attitudes. A scale could then be constructed with a series of opinions allocated along this base line. Thurstone² thus conceived of attitude in the singular as being a point on the scale and a broader concept of an attitude to be represented by an area along the scale. The attitude thus measured was not considered as an enduring or constitutional constant. In other words, attitudes are transitory and may be different upon a second measurement. This early work by Thurstone removed much doubt about the use of opinions as indices of attitude.

Likert,³ in 1932, modified the Thurstone procedure for construction of attitude scales by introducing a system of arbitrarily assigning values to the attitude scale. He also used the technique of measuring interval consistency in the selection of items and applied the split-half test to determine the reliability of the scale. This simpler method resulted in the assignment of consecutive numerical values to the different alternatives. This also simplified the sampling by reducing the size of the population necessary to yield statistically sound data.

²Ibid., p. 17.

³Rensis Likert. A Technique For The Measurement of Attitudes, Archives of Psychology, Vol. XXII, No. 140, p. 42. Feb. 1932.

Droba⁴ followed in 1932 with a publication summarizing the several methods of attitude measurement. The strong and weak points of the various methods were listed. He felt the Case Method was not accurate nor did it lend itself to quantitative analysis. In this method a person is asked to make a written statement of his attitude toward some object, which in turn is evaluated by the investigator or judges who decide whether it is favorable or unfavorable. The second method given was Relative Ranking which was described by Droba as follows:

In this method the decision of the subject about an indicator is relative to another indicator. The subject may be asked to arrange in order of merit, occupations or nationalities so that each occupation is relative to another occupation and each nationality to another nationality. The same procedure can be applied to statements expressing attitudes toward certain topics.⁵

The Graphic Rating Scale was described as the measurement of attitudes along a line with the steps representing the various degrees of attitude as indicated by words, numbers, or phrases. Two types of graphic rating scales may be distinguished: The self-rating type in which the subject marks his own attitude on a line, and the 'rating by others' type in which a person's attitudes are rated by others.⁶

⁴D. D. Droba. Methods of Measuring Attitudes, Psychological Bulletin, 29: 309-23, May, 1932.

⁵Ibid., p. 312.

⁶Ibid., p. 313.

A last method of measuring attitude was by equal appearing intervals.⁷ This permits a distribution of attitudes along a linear scale but is considered to be impractical in most cases.

Young,⁸ in a similar report, suggests that it is permissible to use parts of several techniques in the construction of an attitude scale. He mentions the types of attitude scales reported by Droba and adds the Gutman technique as still another type.

A variation in the procedure of making attitude scales was suggested by Remmers.⁹ This type of scale could be used in many types of situations by simple adjustments in wording. He felt that attitude scales could be developed to measure disciplinary procedure, homemaking activity, institutions, vocations, play, occupations, and individual or group morale. The advantage outlined here was that any person could make use of an attitude scale and need not be expert in the preparation of such scale.

Sletto,¹⁰ in 1937, studied the reliability of

⁷Ibid., p. 313.

⁸Pauline V. Young. Scientific Social Surveys and Research, Prentice-Hall, Inc., New York, 1949. p. 349.

⁹H. H. Remmers. Studies in Attitude -- A Contribution to Social Psychological Research Methods. Bulletin of Purdue University, Lafayette, Ind., Vol. XXXV, No. 4, Dec. 1934. p. 3.

¹⁰Raymond F. Sletto. Construction of Personality

personality scales by the criterion of internal consistency. He analyzed the results of six tests administered to high school teachers, university teachers, and to employed and unemployed persons which were designed to measure morale. The discriminative value of an item was found by determining if the differentiation yielded by an item was consistent in direction with that yielded by total score.

Another summary in regard to attitude measurement was made by Ricker¹¹ in 1943. He stated:

A consideration of the scales now in use reveals that there are two chief methods of scale construction. The first method is termed the empirical technique. Here the units which comprise the scale are experimentally determined by using well-established psychophysical methodology. The second technique is the logical method. The scale categories of the logical scale are not derived empirically, but are assigned arbitrarily by the experimenter. Since logical scale construction does not require the great expenditure of time and effort that attends the construction of an empirical scale, logical scales are popular in attitude research, although very little data have been presented in the literature which compare the results obtained by the two methods.

It is well established that attitudes do not exist alone and separate from other attitudes. In fact the relationships of one attitude to another is that of close

Scales by the Criterion of Internal Consistency. The Sociological Press, Hanover, N. H. 1937.

¹¹Britten L. Ricker. "A Comparison of the Methods Used in Attitude Research." Unpublished Doctor's dissertation, Princeton Univ., Princeton, N. J. 1943.

association. Cattell¹² spoke of this as being component attitudes or sentiments which express a single course of action in response to a single situation and the total sentiments which are formed by several courses of actions.

Gutman¹³ refined his technique in 1947 and it became known as the Cornell Technique. It is a statistical method which is based upon the ranking of individuals on a scale, with a high degree of discrimination. The persons rank on the scale indicates how he responded to the items. A scaleogram approach is used which requires pre-testing with a population of at least 100 individuals. Gutman further stated that this required fewer items in the final scale than did other procedures.

Loomis¹⁴ developed an instrument to measure attitude of county agents in Michigan using several techniques. Certain sections required rankings, others checking on a five-point scale, and one required open-end statements. The results were given in terms of frequency and weighted rank score.

¹²Raymond L. Cattell. The Ergis Theory of Attitude and Sentiment Measurement. Educational and Psychological Measurement, Vol. 7, 1947, p. 221.

¹³Louis Gutman. The Cornell Technique for Scale and Intensity-Analysis, Education and Psychological Measurement. Vol. XII, pp. 247-279.

¹⁴Charles P. Loomis. Studies in Applied and Theoretical Social Science. Michigan State College Press, East Lansing, Mich. 1950.

Walters¹⁵ spoke of attitude measurement by saying it is necessary to know whether the attitude is favorable or unfavorable, how clearly the subject holds the attitude, and whether conflicting attitudes are held if behavior is to be predicted.

These studies point up very clearly the basis for attitude research. The development of acceptable scales or inventories was demonstrated by early investigators. Later studies adapted these basic scales or inventories as a valid manner of determining the attitudes held by a representative sample of the total group.

Literature on Vocational Agriculture and Future Farmers of America Organization. Much of the research in agricultural education, with respect to the Future Farmer of America organization, has dealt with specific activities or with the evaluation of the organization with reference to these activities. However, selected studies have dealt with some phase of attitude measurement as it relates to vocational agriculture and the FFA organization.

One of the early studies in Agricultural Education in which attitudes figured prominently was by Floyd.¹⁶

¹⁵Otis M. Walters, Jr. The Improvement of Attitude Research. Journal of Social Psychology, 1951, p. 143. Vol. 24.

¹⁶Arthur Floyd. "The Attitude of Negro Vocational

He studied the attitude of boys enrolled in vocational agriculture and of girls enrolled in home economics. A questionnaire was used with 450 boys and 375 girls. He found that slightly over 50 per cent of both groups were satisfied with country life. On the basis of the study suggested changes in the curriculum were made.

Cromer,¹⁷ in 1931, used the Thurstone technique to measure the attitude of vocational agriculture teachers. An attitude scale was constructed containing one hundred and fifty items with each item given a scale rating. The attitude of the teacher was determined by the relative weighting of the total items.

The relationship between choice of farming as a vocation and measured attitude toward farming was studied by Henderson.¹⁸ A jury was used to determine factors influencing the choice of farming as a vocation and a modified

Agriculture and Home Economics Pupils Toward Farming as a Factor Affecting the Program of Agricultural Education". Unpublished Master's thesis, Cornell University, Ithaca, New York. 1929.

¹⁷Samuel S. Cromer. "Development of a Scale for Measuring the Professional Attitude of a Teacher of Vocational Education in Agriculture". Unpublished Doctor's thesis, Cornell University, Ithaca, New York. 1931.

¹⁸Howard C. Henderson. "The Relationship Between Certain Factors Affecting the Choice of Farming as a Vocation and Measured Attitude Toward Farming". Unpublished Master's thesis, Purdue University, West Lafayette, Ind., 1934.

Cromer scale was used to measure attitude toward farming. A positive relationship was found to exist.

Elliott¹⁹ tested the validity of the Cromer-Young scale for measuring the attitude of boys in vocational agriculture toward farming. Five criteria were used as a basis for correlations. He found that the scale measured what it proposed to measure and could be used with considerable success in measuring the attitudes of boys toward farming as a vocation.

Using an attitude scale developed by Wert of Iowa State, Vickerstaff²⁰ measured the attitude of 2000 boys toward farming. The scale showed that boys with experience in agriculture in high school, in 4-H Club work, or by living on a farm, had a more favorable attitude toward farming.

Myster²¹ prepared a list of statements designed to measure the attitude of students toward farming. A positive score on the composite items represented a favorable

¹⁹Clayton H. Elliott. "Determining the Validity of the Cromer-Young Farming Attitude Scale". Unpublished Master's thesis, Purdue University, West Lafayette, Indiana. 1934.

²⁰Sylvester G. Vickerstaff. "The Attitude of High School Boys Toward Farming". Unpublished Master's thesis, Iowa State College, Ames, Iowa. 1942.

²¹Alonzo M. Myster. "Construction and Validation of A Scale For the Measurement of Attitude Toward Farming". Unpublished Doctor's thesis, Iowa State College, Ames, Iowa. 1943.

attitude toward farming. The scale was administered to a large number of students and was found to be a reliable index in measuring the attitudes of high school students toward farming.

The Minnesota Teacher Attitude Inventory was used by Stevens²² to study the qualities needed by supervising teachers in agriculture. He measured the attitude of these teachers toward the interpersonal relations of teachers to pupils and compared them with a random sample of vocational agriculture teachers in Minnesota. He found that the supervising teachers were superior to other teachers from the standpoint of inter-personal relations, which provided a situation for student-teacher training superior to that found in the random sample of teachers.

Woodhull,²³ studied the attitudes of teachers, administrators, and supervisors toward the development of the program of vocational education in agriculture. He prepared a list of concepts with an accompanying five point scale to measure attitude. He found that there was a

²²Glen Z. Stevens. "Factors Involved in the Selection of Supervising Teachers of Vocational Agriculture in Minnesota". Unpublished Doctor's thesis, University of Minnesota, Minneapolis. 1952.

²³James Edward Woodhull. "A Comparison of the Attitude of Teachers and Their Supervisors Toward the Future Development of the Program of Vocational Education in Agriculture". Unpublished Doctor's thesis, Pennsylvania State College, State College, Pennsylvania, 1953, p. 44.

significant difference in attitude of teachers, administrators, and supervisors toward various phases of the program. However, teachers of agriculture and their supervisors, in general, had the same attitude toward the future development of the program.

Martinez-Aceredo²⁴ studied the attitude of educators toward the development of young and adult farmer programs in agricultural education in Puerto Rico. A scale similar in type to that used by Woodhull was followed. He found no significant differences in the attitudes of teachers, itinerant teachers, principals, and supervisors to the development of this phase of the program.

The attitudes of citizens and educators toward the programs of young adult farmer education was measured by Gerhart.²⁵ He found that both groups were favorable to a program of farmer education in communities where such programs were already in operation and also in communities where such programs had not been developed.

²⁴Reinaldo I. Martinez-Aceredo. "A Comparison of the Attitudes of Educators Toward the Future Development of Young and Adult Farmer Instruction in Puerto Rico". Unpublished Doctor's thesis, Pennsylvania State University, University Park, Pennsylvania, 1955.

²⁵H. Brinton Gerhart.. "Attitudes of Citizens and Educators Which are Associated With the Occurrence of Young Adult Farmer Education in School Systems of Pennsylvania". Unpublished Master's paper, Pennsylvania State University, University Park. 1956.

Sundet²⁶ developed an attitude inventory for teachers of agriculture and compared teacher response to this instrument and to the Minnesota Teacher Attitude Inventory. Teachers were divided into two groups and classified as superior and inferior teachers. The reliability of the attitude inventory was found to be 0.9221 when correlated with teacher and supervisor rating and the Minnesota Teacher Attitude Inventory.

Meaders²⁷ found that in general the recommendations from selected national organizations were for the FFA to be an intergal part of the program of vocational education in agriculture and that it should be used as a teaching device. Meaders further measured the attitude of jury members toward selected concepts relating to the program of vocational education in agriculture. He found that present day leaders in agricultural education and in educational administration were favorably disposed in their writings toward the value of the FFA organization as it is presently conducted.

Numerous other studies have dealt with the leadership, cooperative, or other activities of the organization. None of these attempted to measure student or teacher

²⁶Stanley A. Sundet. "An Attitude Inventory for Teachers of Vocational Agriculture". Unpublished Doctor's thesis, University of Minnesota, Minneapolis. 1956.

²⁷Otis Donald Meaders. Op. cit.

attitude to the role of the FFA organization.

These studies indicate an increasing awareness of the importance of attitude measurement in the evaluation of educational programs involving individuals, either student, teachers, or citizen groups. If desirable attitudes are to be developed, a knowledge of existing attitudes held by the groups concerned must be known.

CHAPTER III

PRESENTATION AND ANALYSIS OF THE RESULTS

This chapter presents the results of the Attitude Inventory in terms of responses to the concepts along a five-point scale; namely "strongly agree", "agree", "undecided", "disagree", or "strongly disagree". (Key SA, A, U, SD, D.) The responses of teachers of agriculture in West Virginia to the concepts are analyzed and compared to the responses of teachers of agriculture in the North Atlantic Region to the concepts. The responses of teachers of agriculture in West Virginia are also analyzed and compared to the responses of students of agriculture in West Virginia to the same concepts.

The results are presented statistically in terms of whether or not the differences are significant. The Chi-Square technique was used to determine significance. The findings are presented in three groups: (1) very significant, or at the 1 per cent level of probability, (2) significant, or at the five per cent level of probability, and (3) not significant. The data are presented in tabular form for those concepts which were either very significant or significant. Those concepts in which no significant differences were found are presented in paragraph

form with the concepts further grouped into six areas, namely: (1) Membership, (2) Activities of the FFA, (3) Adviser-Member Relationship, (4) Relationship of Local Chapter to State and National Organizations, (5) Chapter Meetings, and (6) General.

The findings are presented first for the two groups in the teacher sample, and then for the sample groups of teachers of agriculture in West Virginia and students of agriculture in West Virginia.

Teacher Sample. The attitudes expressed by teachers in West Virginia to the concepts in the Attitude Inventory were secured by personal contact and by letter. Explanation of the study was made by letter to teachers included in the study. All teachers in the sample group agreed to participate in the study. The Attitude Inventory was then sent by letter or delivered personally by the investigator to each teacher. Fifty-three of the fifty-four teachers of agriculture in West Virginia completed the instrument. The teachers of agriculture in the North Atlantic Region who were chosen to be in the sample were contacted by letter. The Attitude Inventory was enclosed along with a letter of explanation. Thirty-seven of the thirty-nine teachers completed and returned the instrument.

Concepts on which teachers in West Virginia and teachers in the North Atlantic Region showed significant differences.

The responses of teachers of agriculture in West Virginia were significantly different from the responses of teachers of agriculture in the North Atlantic Region on four of the fifty-four concepts tested by the Chi Square technique.¹

To the concept, "Officers of local chapters should be regularly enrolled in high school," teachers in West Virginia and teachers in the North Atlantic Region showed significant differences. These differences can be seen by examining Table VI. (Concept No. 8).

TABLE VI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND TEACHERS IN THE NORTH ATLANTIC REGION TO THE CONCEPT, "Officers of local chapters should be regularly enrolled in high school"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	47	6	0	0	0	53
Teachers in North Atlantic Region	25	12	0	0	0	37
Total	72	18	0	0	0	90

¹For a complete statistical summary, including Chi Square value, degrees of freedom, and level of significance, see Appendix G.

Although these differences were significant, it can be observed that 100 per cent of the teachers in both groups were in the Agreed or Strongly Agreed category. The teachers of agriculture in West Virginia were much more Strongly Agreed with the concept than were teachers of agriculture in the North Atlantic Region.

Teachers in West Virginia and the North Atlantic Region differed significantly on the concept that the FFA chapter should sponsor recreational activities for its members. Table VII presents the responses of the two sample groups of teachers. (Concept No. 23.)

TABLE VII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND TEACHERS IN THE NORTH ATLANTIC REGION TO THE CONCEPT, "The FFA chapter should sponsor recreational activities for its members"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	16	31	3	3	0	53
Teachers in North Atlantic Region	14	23	0	0	0	37
Total	30	54	3	3	0	90

Six of the fifty-three teachers of agriculture in West Virginia were Undecided or Disagreed with the concept,

whereas all teachers in the North Atlantic Region Agreed or Strongly Agreed to the concept.

A significant difference was found between the two groups of teachers regarding the publicizing of all activities of the vocational agriculture department through the FFA organization. As shown in Table VIII, the responses of the two groups were dispersed throughout the scale. (Concept No. 32.)

TABLE VIII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND TEACHERS IN THE NORTH ATLANTIC REGION TO THE CONCEPT, "All activities of the vocational agriculture department should be publicized through the FFA organization"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	2	14	6	26	5	53
Teachers in North Atlantic Region	2	18	1	14	2	37
Total	4	32	7	40	7	90

Almost sixty per cent of the teachers in West Virginia were in the Disagree and Strongly Disagree categories, whereas almost the same percentage of the teachers in the North Atlantic Region were on the other side of the scale and Agreed or Strongly Agreed to the concept.

The concept relating to holding regular FFA meetings at a time that does not conflict with other classes was significantly different between the two groups. Although Table IX shows a high majority of all teachers agreeing with the concept, some teachers in West Virginia were on the other end of the scale. (Concept No. 39.)

TABLE IX

RESPONSES OF TEACHERS IN WEST VIRGINIA AND TEACHERS IN THE NORTH ATLANTIC REGION TO THE CONCEPT, "Regular FFA meetings should be held at a time that does not conflict with other classes"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	14	28	3	5	3	53
Teachers in North Atlantic Region	11	25	1	0	0	37
Total	25	53	4	5	3	90

Approximately one teacher in seven in West Virginia expressed some degree of disagreement to this concept, with another five per cent being undecided.

Concepts on which teachers in West Virginia and teachers in the North Atlantic Region showed no significant differences. No differences were found between teacher groups

on fifty of the fifty-four concepts based on the Chi Square determination. These remaining concepts are grouped in six areas; (1) Membership, (2) Activities of the FFA, (3) Adviser-member relationship, (4) Relationship of local chapter to state and national organization, (5) Chapter meetings, and (6) General. The figures used here are based on responses of teachers in West Virginia but also reflect very closely the responses of teachers in the North Atlantic Region to the concepts in the Attitude Inventory.

Membership. Eight of every ten teachers agreed with Concept No. 1 that membership in the FFA should be voluntary. Slightly less than one-fourth of the teachers expressed agreement with the concept that membership should be open to both boys and girls. (Concept No. 2.) Slightly more than three out of every four teachers were in the Agreed or Strongly Agreed categories on Concept No. 3; "Membership should be limited to those enrolled in vocational agriculture in the public secondary schools." More than eight of every ten teachers were on the affirmative side of the scale with regard to active membership continuing until age 21 or three years after high school, whichever is longer. (Concept No. 6.) Fewer than one teacher in five agreed that membership should terminate at graduation from high school. (Concept No. 4.) Almost six

teachers out of ten agreed with Concept No. 5 that enrollment in vocational agriculture should automatically include membership in the FFA. Almost all teachers (98 per cent) agreed that membership in 4-H Club should not prevent membership in the FFA. (Concept No. 7.) Finally, slightly more than one teacher in five agreed that the local chapter should have the right to prescribe its own qualifications for membership. (Concept No. 47.)

Activities. Concepts numbered from 18 through 25 inclusive dealt with the activities of the FFA organization. More than 95 per cent of teachers Agreed or Strongly Agreed with the concepts that the chapter should sponsor activities designed to improve farming, improve leadership, and community improvement. (Concepts No. 18, 19, 20.) Almost two-thirds of the teachers gave an affirmative reply to the concept that the chapter should sponsor cooperative buying and selling activities. (Concept No. 21.) More than seven of ten Agreed that the chapter should confine its money raising activities to those of an agricultural nature. (Concept No. 22.) More than nine out of ten teachers Agreed or Strongly Agreed to Concept No. 24 that the chapter should sponsor social activities for its members. With regard to the FFA chapter and 4-H Club organization cooperating in community activities (Concept No.

25.), almost nine of ten teachers Agreed. (For Concept No. 23, see page 39.)

Adviser-Member Relationship. All teachers Agreed or Strongly Agreed to Concept No. 9 that the activities of the chapter should be carried out by the members, with advice from the vocational agriculture teacher. More than nine out of ten teachers responded in an affirmative manner to the concept that the teacher should act in an advisory capacity only. (Concept No. 10.) Almost six of ten teachers were in the Agreed or Strongly Agreed categories on the concept that the vocational agriculture teacher should encourage the chapter to carry out activities in which he (the teacher) is interested. (No. 11.) Seven of ten teachers expressed agreement to Concept No. 12 that the final decision in regard to an activity should be left to the members. Less than one teacher in ten Agreed that the teacher should carry out those activities in which members are likely to do a poor job. (Concept No. 13.) Almost six of every ten teachers felt that they should have the right to forbid activities to which they were opposed. (Concept No. 14.) Nine teachers out of ten Agreed or Strongly Agreed that the adviser should take an active part in helping to plan local chapter activities. (Concept No. 17.) More than nine of every ten teachers

expressed agreement to Concept No. 46 that local chapters should have the right to determine their activities with the consent and advice of the local adviser.

Relationship of Local Chapter to State and National Organizations. Teachers were almost unanimously in favor of the concept that the activities of the local chapter should be in harmony with those of the national organization. (Concept No. 16.) Similar agreement was expressed by teachers to Concept No. 33 that district, state, and national activities should be encouraged. More than eight of every ten teachers Agreed that the state association should provide leadership to the local chapters. (Concept No. 49.) Almost eight of every ten teachers Agreed that the state organization should determine the number of State Farmer degrees to award. (Concept No. 50.) Fewer than six of every ten teachers Agreed that the national organization should only be advisory to the state associations and local chapters. (Concept No. 51.) Nine of ten teachers expressed agreement to the concept that the national organization should determine the number of American Farmer degrees to award. (Concept No. 52.) More than nine of every ten teachers felt that the national organization should provide information and materials to guide local chapters in their activities. (Concept No. 53.) Only one

teacher in fourteen Agreed that the national convention should be restricted to official state delegates. (Concept No. 54.)

Chapter Meetings. One teacher in three Agreed that regular FFA meetings should be held during scheduled vocational agriculture classes. (Concept No. 38.) Seven of every ten teachers Agreed with Concept No. 40 that time for planning FFA activities should be taken during vocational agriculture classes. More than nine out of ten Agreed that FFA members should devote additional time to carrying out chapter activities, over and above time spent in vocational agriculture classes. (Concept No. 41.) Two of every three teachers Agreed that regular class time should be used for FFA activities. (Concept No. 42.) More than nine of every ten teachers felt that regularly scheduled meetings should be held by all chapters (Concept No. 43), and only one teacher in six felt that regular meetings should be discontinued during the summer months.

General. Teachers of agriculture Agreed unanimously to the concept that the activities of the local chapter should be in harmony with the policies of the local school. (Concept No. 15.) Fewer than one teacher in seven Agreed that all FFA activities should be confined to the local level. (Concept No. 26.) More than nine of every ten

teachers Agreed that the FFA chapter should cooperate with community organizations (Concept No. 27,) and all Agreed that the chapter should cooperate with other school organizations. (Concept No. 28.) Two-thirds of the teachers Agreed that the FFA chapter should stay clear of controversial issues (Concept No. 29,) and that the chapter should avoid excessive amounts of publicity. (Concept No. 30.) Three-fourths Agreed that the publicity should be directed to the individual FFA member or to the chapter. (Concept No. 31.) More than nine of every ten teachers Agreed that FFA awards should be based on progress and achievement in a selected activity. (Concept No. 34.) Less than one teacher in ten Agreed that cash awards should be eliminated. (Concept No. 35.) Three-fourths Agreed that awards should be designed to provide additional education (Concept No. 36) and more than nine out of ten Agreed that awards should be designed to provide for advancement in farming. (Concept No. 37.) More than eight out of ten teachers of agriculture Agreed that the basis for establishing a contest or activity should be its educational value. (Concept No. 45.) One teacher in six Agreed that the local chapter should be responsible only to the local school authorities.

Student Sample. The attitudes expressed by students of

agriculture in West Virginia were secured through a personal visit to the high school. Teachers of agriculture in the schools selected in the sample group were first visited to secure permission for students to participate in the study. A follow-up visit was then scheduled at a later date to administer the Attitude Inventory to students enrolled in the third and fourth year of vocational agriculture and who were members of the FFA organization.

The results of the students responses to the Attitude Inventory are presented in tabular form for those concepts in which there was a significant difference between teachers and students in West Virginia. For those in which no significant differences existed, the findings are presented in percentages of teachers and students agreeing with a given concept.

Concepts on Which Teachers in West Virginia and Students in West Virginia Showed Very Significant Differences. By the use of the Chi Square technique,² very significant differences were found on eighteen of the fifty-four concepts.

Teacher and student attitude to the concept, membership in the FFA should be voluntary, is shown in Table X.

²For a complete statistical summary, including Chi Square value, degrees of freedom, and level of significance, see Appendix I.

TABLE X

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN
WEST VIRGINIA TO THE CONCEPT, "Membership in
the FFA should be voluntary"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	20	22	1	6	4	53
Students in West Virginia	156	74	6	8	3	247
Total	176	96	7	14	7	300

(Concept No. 1.) It can readily be seen by observation that a great majority of the students Agreed with this concept. (93 per cent.) On the other hand, approximately 20 per cent of the teacher group were in the Disagree or Strongly Disagree categories. Teacher attitude is further pointed out by the fact that those who Agreed were split about half and half with reference to the degree of agreement, while the student sample was about two to one in the Strongly Agreed category.

Teachers and students also differed in regard to Concept No. 2, "Membership should be open to both boys and girls", although the differences were not so pronounced as in Concept No. 1.

TABLE XI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN
WEST VIRGINIA TO THE CONCEPT, "Membership
should be open to both boys and girls"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	6	5	3	20	19	53
Students in West Virginia	27	56	34	75	55	247
Total	33	61	37	95	74	300

One teacher in five Agreed with the concept in Table XI whereas one student in three expressed agreement. Approximately one student in seven was Undecided with regard to both sexes being eligible for membership. The present national constitution restricts active membership to male students.

A very significant difference was found to exist between teachers in West Virginia and students in West Virginia to the concept that membership should be limited to those enrolled in vocational agriculture in the public secondary schools. Table XII presents the data for the two groups (Concept No. 3.).

TABLE XII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "Membership should be limited to those enrolled in vocational agriculture in the public secondary school"

Group	Attitude					Total
	SA	A	U	D	SD	
Teacher in West Virginia	27	14	1	7	4	53
Students in West Virginia	55	82	30	59	21	247
Total	82	96	31	66	25	300

Seventy-seven per cent of teachers Agreed with this concept, contrasted with fifty-five per cent of the student sample. The student responses were also more pronounced throughout the five points on the scale than the teacher responses.

Concept No. 6 is based on the current regulation in the national FFA organization relating to the length of membership. Teachers were in agreement with this concept in more than eight out of ten responses, whereas students were in agreement in seven out of ten responses.

As shown in Table XIII, approximately twice as large a proportion of students Disagreed with this concept as compared with teachers.

TABLE XIII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "Active membership should be continued until age 21 or 3 years after graduation from high school, whichever is longer"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	7	37	4	3	2	53
Students in West Virginia	84	89	21	38	15	247
Total	91	126	25	41	17	300

Although teachers and students were basically in agreement with the concept that officers of local chapters should be regularly enrolled in high school, the degree of agreement differed. Table XIV shows that nine of ten teachers were Strongly Agreed to the concept and only seven of ten students were in the same category. (Concept No. 8.)

Table XIV also points up that teachers of agriculture in West Virginia were 100 per cent in favor of this concept, whereas some few students were opposed to it.

The role of the adviser was given attention in Concept No. 10. The responses of teachers and students to the idea presented is given in Table XV.

TABLE XIV

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN
WEST VIRGINIA TO THE CONCEPT, "Officers of local
chapters should be regularly enrolled in
high school"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	47	6	0	0	0	53
Students in West Virginia	165	70	4	5	3	247
Total	212	76	4	5	3	300

Table XV

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN
WEST VIRGINIA TO THE CONCEPT, "The vocational
agriculture teacher should act in an advisory
capacity only"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	29	21	1	2	0	53
Students in West Virginia	56	96	32	50	13	247
Total	85	117	33	52	13	300

Although practically all teachers of agriculture Agreed that they should act in an advisory capacity only, a considerable number of students felt that something more should be expected of the teacher, in addition to the advisory role. Approximately one student in four was disposed toward this idea of additional responsibility on the part of the teacher of agriculture.

Students of agriculture were less inclined to Agree with the concept that activities of the local chapter should be in harmony with the policies of the local school. Table XVI presents these data. (Concept No. 15.)

TABLE XVI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The activities of the local chapter should be in harmony with the policies of the local school"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	34	19	0	0	0	53
Students in West Virginia	68	132	19	25	3	247
Total	102	151	19	25	3	300

All teachers Agreed with this concept, whereas one student in nine expressed a negative response to local

chapter activities being in harmony with policies of the local school.

The relationship of the local chapter to the national organization is tied in with Concept No. 16. The attitudes of the teacher sample and student sample are presented in Table XVII.

TABLE XVII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The activities of the local chapter should be in harmony with those of the national organization"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	22	29	1	1	0	53
Students in West Virginia	78	105	32	28	4	247
Total	100	134	33	29	4	300

Again, teachers were almost unanimous in agreeing that the local chapter activities should be in harmony with those of the national organizations. This was questioned by one student in eight who responded to the Attitude Inventory.

The kind of money-raising activities that FFA chapters should use to finance their activities was the context

of Concept No. 22. Differences in attitude of the two groups are shown in Table XVIII.

TABLE XVIII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The FFA chapter should confine its money raising activities to those of an agricultural character"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	3	7	5	29	9	53
Students in West Virginia	23	74	49	78	23	247
Total	26	81	54	107	32	300

Only two teachers out of ten in West Virginia Agreed that the money raising activities of the FFA chapter should be confined to those of an agricultural nature. Four of ten students expressed similar agreement. A considerable number of students, approximately two in ten, were Undecided on this concept.

The concept that all FFA activities should be confined to the local level met with general disapproval by teachers and a more mixed reaction by students. Table XIX shows these rather striking differences. (Concept No. 26.)

TABLE XIX

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "All FFA activities should be confined to the local level"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	0	7	4	33	9	53
Students in West Virginia	15	79	26	71	56	247
Total	15	86	30	104	65	300

Only one teacher in eight expressed agreement with the idea of activities being strictly on the local level. Almost four of every ten students expressed agreement with the concept of local activities only.

Concept No. 28 relating to the cooperation of the FFA chapter with other school organizations met with approval of the entire teacher sample.

However, as shown in Table XX, a small minority of students Disagreed, and of those who did Agree, a smaller percentage of students were in the Strongly Agree category than was true in the teacher sample.

The question of whether or not all activities of the vocational agriculture department should be publicized through the FFA organization is posed in Concept No. 32.

The responses of the sample groups are given in Table XXI.

TABLE XX

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The FFA chapter should cooperate with other school organizations"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	26	27	0	0	0	53
Students in West Virginia	80	136	17	12	2	247
Total	106	163	17	12	2	300

TABLE XXI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "All activities of the vocational agriculture department should be publicized through the FFA organization"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	2	14	6	26	5	53
Students in West Virginia	45	113	36	43	10	247
Total	47	127	42	69	15	300

Although sixteen teachers in West Virginia Agreed with the concept in Table XXI, almost twice as many (31) Disagreed with the concept. On a percentage basis, more than twice as many students as teachers Agreed with the concept (64 per cent-students; 30 per cent-teachers). As shown in Appendix I, the Chi Square value for this concept was one of the highest recorded in the study.

Teachers and students expressed agreement to the concept that district, state, and national activities should be encouraged. The responses of teachers and students to Concept No. 32 is shown in Table XXII.

TABLE XXII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "District, state and national activities should be encouraged"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	11	39	2	1	0	53
Students in West Virginia	110	118	10	9	0	247
Total	121	157	12	10	0	300

Students, however, were much more Strongly Agreed with 45 per cent in this category, while only 20 per cent

of teachers expressed a similar attitude. The number in both groups expressing disagreement to the concept was almost nil.

The concept of basing FFA awards on progress and achievement was set forth in Concept No. 34. It can be seen by observing Table XXIII that by far the greater majority of teachers and students expressed agreement with the concept.

TABLE XXIII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "FFA Awards should be based on progress and achievement in a selected activity"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	12	38	2	1	0	53
Students in West Virginia	105	117	12	9	4	247
Total	117	145	14	10	4	300

A higher proportion of students were in the Strongly Agreed category than were teachers. On a percentage basis, the comparison showed slightly more than forty per cent of students Strongly Agreed as against less than twenty-five per cent of teachers in the same category.

The question of whether time for planning FFA activities should be taken during vocational agricultural classes was raised in Concept No. 40. This concept was one in which teachers and students expressed a wide range of attitudes, as shown in Table XXIV.

TABLE XXIV

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "Time for planning FFA activities should be taken during vocational agriculture classes"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	5	33	8	4	3	53
Students in West Virginia	60	85	26	60	16	247
Total	65	118	34	64	19	300

Teachers, in general, were in agreement to the concept, with approximately seven of ten in either the Agreed or Strongly Agreed grouping. However, less than six students in ten expressed a similar attitude. Students were also more inclined to express a specific attitude with only one in ten being Undecided whereas one teacher in six was in the Undecided category.

Teachers and students also differed with respect to using regular class time for FFA activities. Slightly fewer teachers were in agreement to this concept in comparison with the concept of planning FFA activities during vocational agriculture classes. Table XXV presents the attitudes held by the two groups. (Concept No. 42.)

TABLE XXV

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "Regular class time should be used for FFA activities"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	3	32	9	6	3	53
Students in West Virginia	46	73	20	89	19	247
Total	49	105	29	95	22	300

Of the student sample 119 expressed agreement to the concept, contrasted with 108 who were in disagreement with the concept. For practical purposes, the student sample was about equally divided on the question. However, almost four times as many teachers expressed agreement as against disagreement. (35 to 9.)

Who should determine qualifications for membership was the setting of Concept No. 47. Almost two-thirds of the teacher sample expressed disagreement to the concept as shown in Table XXVI.

TABLE XXVI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The local chapter should have the right to prescribe its own qualifications for membership"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	4	8	7	26	8	53
Students in West Virginia	37	82	30	63	35	247
Total	41	90	37	89	43	300

On the other hand, almost half of the students expressed agreement with the concept (48 per cent), with 39 per cent disagreeing and the remainder Undecided as to whether or not the local chapter should have the right to prescribe its own qualifications for membership.

Although teachers and students were in the main agreeable to the concept that the national organization should determine the number of American Farmer degrees to award,

a larger proportion of students than teachers expressed a negative reaction. (Concept No. 52--see Table XXVII.)

TABLE XXVII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The national organization should determine the number of American Farmer degrees to award"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	12	36	0	4	1	53
Students in West Virginia	63	97	34	42	11	247
Total	75	133	34	46	12	300

Approximately one student in five Disagreed or Strongly Disagreed to the concept, whereas fewer than one teacher in ten expressed a similar attitude.

Students were also more inclined to show a wider range of attitudes than teachers to those concepts relating to the role of the national organization. As shown in Table XXVII and in previous concepts relating to this point, student attitude was generally more mixed than teachers attitude.

Attitudes of teachers and students were significantly different on 18 of the 54 concepts, on one in every three concepts tested by the Chi-Square technique. In most of these cases, the value of the Chi-Square was considerably in excess of that needed to be significant at the one per cent level of probability.

Concepts on Which Teachers in West Virginia and Students in West Virginia Showed Significant Differences. Teachers in West Virginia and students in West Virginia showed significant differences on nine of the fifty-four concepts tested by the Chi-Square technique. These differences were found in concepts in each of the major areas in which the attitude inventory measured the responses of teacher and student groups. In addition, several other concepts approached the five per cent level of probability based on the Chi-Square determination. A look at Appendix I shows these additional concepts in which significance was approached.

As shown in Table XXVIII, teachers were unanimously in favor of concept No. 9, which stated that activities should be carried out by the students with advice from the teacher of agriculture. Students were almost unanimous in their endorsement of this concept, but were considerably less Strongly Agreed as indicated in the table. This concept was posed in an attempt to clarify the role of the teacher of agriculture as seen by the student membership in the organization.

TABLE XXVIII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The activities of the FFA chapter should be carried out by the students, with advice from the vocational agriculture teacher"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	40	13	0	0	0	53
Students in West Virginia	142	97	1	3	4	247
Total	182	110	1	3	4	300

Almost eighty per cent of teachers were in the Strongly Agreed category with about sixty per cent of students showing a similar attitude.

Although a majority of both groups expressed disagreement with Concept No. 13, students responses were more widely dispersed throughout the scale as indicated in Table XXIX.

Four out of five teachers were in the Disagree or Strongly Disagree categories whereas only three out of five students expressed attitudes similar to those held by the teacher group.

Teacher and student reaction to the concept posed in statement No. 14 of the Attitude Inventory was scattered

TABLE XXIX

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The vocational agriculture teacher should carry out those activities in which members are likely to do a poor job"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	1	4	6	23	19	53
Students in West Virginia	29	42	25	89	62	247
Total	30	46	31	112	81	300

throughout the scale. Table XXX gives the distribution of the two groups.

TABLE XXX

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The vocational teacher should have the right to forbid activities to which he is opposed"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	11	20	9	10	3	53
Students in West Virginia	23	79	33	71	41	247
Total	34	99	42	81	44	300

Approximately sixty per cent of the teacher sample expressed agreement to the concept. Only slightly more than forty per cent of the student sample were in the Agreed or Strongly Agreed category with a slightly larger percentage (45 per cent) in the Disagree categories and the remainder of the student sample Undecided.

Although more than sixty per cent of teachers Agreed with Concept No. 21 as shown in Table XXXI,, a larger number and percentage of teachers were in the Undecided category than was found in any other concept in the Attitude Inventory.

TABLE XXXI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The FFA chapter should sponsor cooperative buying and selling"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	18	15	14	5	1	53
Students in West Virginia	95	102	33	15	2	247
Total	113	117	47	20	3	300

Nearly eighty per cent of students were also in agreement with the concept, with almost fifteen per cent in the Undecided category. Only a very small minority, in each group, was in the Disagree or Strongly Disagree categories.

Cooperation in community activities between the FFA chapter and the 4-H Club organization was the thesis of Concept No. 25. As shown in Table XXXII, a substantial majority of both groups expressed agreement to the concept.

TABLE XXXII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "The FFA chapter should cooperate with the 4-H Club organization in community activities"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	12	34	5	2	0	53
Students in West Virginia	66	113	34	28	6	247
Total	78	147	39	30	6	300

Almost ninety per cent of teachers were affirmatively inclined to this concept of cooperation between the two youth groups, whereas less than seventy-five per cent of students were so inclined.

Teachers and students in West Virginia showed significant differences in attitude to Concept No. 31 relating to publicity on the local chapter level. As shown in Table XXXIII, the attitudes expressed by both groups were dispersed throughout the scale.

TABLE XXXIII

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "All publicity should be directed to the individual FFA member or to the chapter"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	9	31	3	9	1	53
Students in West Virginia	39	96	47	45	20	247
Total	48	127	50	54	21	300

More than half of the students in West Virginia, 135 of 247, expressed agreement with the concept. Teachers, on the other hand, were Agreed in more than three-fourths of the cases, or 40 of 53. It is also significant to note that almost one-fifth of the students were in the Undecided category, whereas the teacher group in the like category were only about one-eighteenth of the total.

Concept No. 36 embraced the concept of awards designed to provide additional education. Approximately the same percentage of teachers as students, (77 per cent), were favorable to the concept. However, the degree of agreement was stronger in the student group.

TABLE XXXIV

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "Awards should be designed to provide additional education"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	7	34	2	8	2	53
Students in West Virginia	70	120	30	24	3	247
Total	77	154	32	32	5	300

As shown in the Table XXXIV, approximately one teacher in eight was Strongly Agreed to the concept as against two students in eight. A considerable number of students again were Undecided with regard to the concept.

A high majority, almost eighty per cent, of students were in agreement with the concept relating to members devoting extra time to carrying out FFA activities. Teachers were even more Strongly Agreed as shown in Table XXXV.. (Concept No. 41.)

TABLE XXXV

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN WEST VIRGINIA TO THE CONCEPT, "FFA members should devote additional time to carrying out chapter activities (in addition to regularly scheduled vocational agriculture class)"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	18	31	1	1	2	53
Students in West Virginia	63	128	28	16	12	247
Total	81	159	29	17	14	300

More than ninety per cent of teachers were in the Strongly Agreed or Agreed category. Only three of the fifty-three teachers expressed disagreement to the concept. Although these differences are significant statistically, they nevertheless indicate rather common ground between teachers and students relative to members devoting extra time, over and above regular class time, to carrying out FFA activities.

Strong disagreement was expressed by both teacher and student groups to the concept of restricting attendance at the National Convention to official state delegates. (Concept No. 54.) However, as indicated in Table XXXVI,, teachers were more opposed than students to the concept.

TABLE XXXVI

RESPONSE OF TEACHERS IN WEST VIRGINIA AND STUDENTS IN
WEST VIRGINIA TO THE CONCEPT, "The national
convention should be restricted to
official state delegates"

Group	Attitude					Total
	SA	A	U	D	SD	
Teachers in West Virginia	1	3	5	26	18	53
Students in West Virginia	18	23	33	74	99	247
Total	19	26	38	100	117	300

Approximately eighty per cent of the teacher sample expressed disagreement to restricting attendance at the national convention, contrasted with seventy per cent of the student sample. Almost half of the remaining student sample were in the Undecided category.

Concepts On Which Teachers In West Virginia and Students In West Virginia Showed No Significant Differences. Statistically, no significant differences were found between the teacher sample and student sample in West Virginia on twenty-six of the fifty-four concepts. These remaining concepts are grouped into six areas; (1) Membership, (2) Activities of the FFA, (3) Adviser-member relationship, (4) Relationship of local chapter to state and national organization,

(5) Chapter meetings, and (6) General. The comparisons presented here are based on the responses of teachers and students to these remaining concepts.

Membership. Of the eight concepts relating to membership, teachers and students showed no significant differences on the following:

1. Membership should terminate at graduation from high school (Concept No. 4). Approximately twenty per cent of the student sample expressed agreement with this concept as compared to eighteen per cent of the teacher sample.
2. Enrollment in vocational agriculture should automatically include membership in FFA, (Concept No. 5). Sixty-six per cent of students were in the Agreed or Strongly Agreed categories whereas sixty per cent of teachers expressed a like feeling.
3. Membership in a 4-H Club should not prevent membership in the FFA (Concept No. 7). Nearly eighty-five per cent of students expressed an affirmative attitude to this concept compared with ninety-eight per cent of the teacher sample.

Activities of the FFA. No differences were found between the student sample and teacher sample on five of the eight concepts relative to activities. These were:

1. The FFA chapter should sponsor activities designed to

improve farming in the community (Concept No. 18).

Ninety-six per cent of teachers were in the Agreed or Strongly Agreed categories and ninety-seven per cent of students were likewise Agreed.

2. The FFA chapter should sponsor activities designed to improve leadership of its members (Concept No. 19). Ninety-eight per cent of both the student and teacher samples were in agreement with this concept.
3. The FFA chapter should sponsor activities designed for community improvement (Concept No. 20). Teachers--ninety-eight per cent were Agreed or Strongly Agreed; Students--ninety-four per cent.
4. The FFA chapter should sponsor recreational activities for its members (Concept No. 23). Ninety-two per cent of teachers were in agreement with this concept as compared to eighty-nine per cent of the student sample.
5. The FFA chapter should sponsor social activities for its members (Concept No. 24). Approximately ninety-two per cent of teachers were in the Agreed or Strongly Agreed categories as against eighty-four per cent of the student sample.

Adviser-Member Relationship. No significant differences were found on four of the eight concepts pertaining to adviser-member relationship. These four were:

1. The vocational agriculture teacher should encourage the chapter to carry out activities in which he is interested (Concept No. 11). Slightly more than thirty-eight per cent of teachers were in agreement with this concept contrasted with thirty-four per cent of the student sample.
2. The final decision in regard to an activity should be left to the members (Concept No. 12). Seventy-one per cent of the teacher sample expressed an affirmative reply to this concept as compared with eighty-one per cent of the student sample.
3. The adviser should take an active part in helping to plan local chapter activities (Concept No. 17). Slightly in excess of ninety per cent of the teacher and student sample, respectively, expressed agreement with this concept.
4. The local chapter should have the right to determine its activities with the consent and advice of the local advisor (Concept No. 46). Nearly ninety-five per cent of each group expressed agreement with this concept.

Relationship of Local Chapter to State and National Organization. Responses to four of the eight concepts pertaining to relationship among the local, state, and national organization were found not to be significantly different when tested by the Chi Square technique. They were as follows:

1. The state association of FFA should provide leadership to the local chapters (Concept No. 49). Eighty-four per cent of the teacher sample Agreed as against seventy per cent of the student sample.
2. The state organization should determine the number of State Farmer degrees to award (Concept No. 50). Approximately eighty per cent of the teacher sample expressed agreement to this concept as against seventy per cent of the student sample.
3. The national organization should only be advisory to the state associations and local chapters (Concept No. 51). Fifty-eight per cent of the teachers expressed agreement to this concept compared to fifty-one per cent of the students.
4. The national organization should provide information and materials to guide local chapters in their activities (Concept No. 53). Ninety-two per cent of the teachers and eighty-eight per cent of the students expressed agreement with this concept.

Chapter Meetings. Seven of the concepts appearing in the Attitude Inventory related to chapter meetings. No significant differences were found between the teachers in West Virginia and students in West Virginia to the following:

1. Regular FFA meetings should be held during scheduled

vocational agriculture classes (Concept No. 38). Only thirty-five per cent of teachers were in the Agreed or Strongly Agreed categories whereas forty-nine per cent of the students expressed similar agreement.

2. Regular FFA meetings should be held at a time that does not conflict with other classes (Concept No. 39). Practically the same percentage of teachers and students expressed agreement to this concept; teachers--seventy-nine per cent, students--eighty per cent.
3. Regularly scheduled meetings should be held by all FFA chapters (Concept No. 43). Teachers and students again expressed very similar attitudes as shown by ninety-four per cent of teachers agreeing with the concept and ninety-three per cent of students expressing agreement.
4. Regular meetings should be discontinued during the summer months (Concept No. 44). Slightly less than twenty per cent of the teacher sample expressed agreement with this concept as against seventeen per cent of the students sample.

General. The remaining fifteen concepts were grouped under the heading of general concepts since they related to various aspects of the Future Farmer of America organization. Teachers and students expressed very similar attitudes on seven of these fifteen concepts.

1. The FFA chapter should cooperate with community organizations (Concept No. 27). More than ninety-five per cent of teachers expressed agreement to this concept with eighty-five per cent of students also agreeing.
2. The FFA chapter should stay clear of controversial issues (Concept No. 29). Two-thirds of the teachers (sixty-seven per cent). Agreed with this concept as against fifty-seven per cent of the student sample.
3. The FFA chapter should avoid excess amounts of publicity (Concept No. 30). Sixty-four per cent of the teacher group were in the Agreed or Strongly Agreed categories whereas forty-seven per cent of the students expressed similar attitudes.
4. Cash awards should be eliminated (Concept No. 35). Nine per cent of teachers and thirteen per cent of students were in the Agreed or Strongly Agreed categories.
5. Awards should be designed to provide for advancement in farming (Concept No. 37). More than ninety per cent of teachers Agreed with this concept and eighty-six per cent of students were likewise in agreement with it.
6. The basis for establishing a contest or activity should be its educative value (Concept No. 45). Eighty-three per cent of teachers were in agreement with this concept as against sixty-six per cent of the students.

7. The local chapter should be responsible only to the local school authorities (Concept No. 48). Only sixteen per cent of the teacher sample expressed agreement with this concept as compared to twenty-eight per cent of student sample.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This has been a study to determine the attitude of selected students in vocational agriculture and selected teachers of vocational agriculture toward the role of the FFA organization in vocational agriculture. Specific purposes were to: (1) Compare the attitude of teachers in West Virginia to those of teachers in the North Atlantic Region, and (2) to compare the attitudes of teachers in West Virginia to those of students in West Virginia to determine whether any significant differences existed between the groups studied. A five point scale was used in an attitude inventory ranging from Strongly Agree to Agree, to Undecided, to Disagree, to Strongly Disagree. The concepts listed in the attitude inventory were prepared by a review of literature and validated by the use of the jury technique. Results of the attitude inventory were checked for reliability by use of the test-retest method.

This chapter will present a summary of the attitudes expressed by each group, along with the conclusions, implications of the study, and suggestions of further research.

Summary of Teacher Attitude to FFA Concepts. The following statements summarize the attitudes of teachers of agriculture

in West Virginia and in the North Atlantic Region to the concepts in the attitude inventory.

1. Significant differences between the attitudes of the two groups of teachers were found in four of the fifty-four concepts tested by the Chi Square technique. These four concepts were: No. 8--Officers of local chapters should be regularly enrolled in high school; No. 23--The FFA chapter should sponsor recreational activities for its members; No. 32--All activities of the vocational agricultural department should be publicized through the FFA organization; and No. 39--Regular FFA meetings should be held at a time that does not conflict with other classes.
2. No significant differences were found between the attitudes of the two teacher groups to the remaining fifty concepts in the attitude inventory.
3. The teacher groups expressed agreement with those concepts which are presently embodied in the national constitution and by-laws of the FFA organization. These include those related to membership, activities of the FFA organization, and relationship of the local chapter to the state and national organization.
4. Teachers in both groups expressed disagreement with those concepts which would change or alter membership requirements. They also disagreed with concepts which

would limit the FFA organization to the local level in activities and organizational structure.

5. Teachers in West Virginia and in the North Atlantic Region agreed with those concepts which defined their role as an active participant in planning and advising local members in the FFA organization. They further agreed that the adviser should have the right to forbid activities to which he was opposed.
6. Teachers agreed that the activities of the local organization should be in harmony with the policies of the local school and the national FFA organization. They concurred with those concepts which stated that the FFA chapter should cooperate with other groups or agencies in activities which were in accord with the policies of the school and the FFA.
7. Teachers in both groups endorsed those concepts relating to planning FFA activities during vocational agriculture classes. Both groups of teachers felt also that members should be willing to devote additional time to carrying out these activities.
8. Teachers agreed with those concepts which delineated the FFA as an organization designed to develop leadership among its members by participation in activities of an educational nature.

9. Finally, teachers agreed with those concepts which set forth the role of the state and national organizations as providing leadership and assistance to the local chapter.

Summary of Student Attitude to the FFA Concepts. Student attitude to the concepts in the attitude inventory are summarized as follow:

1. Significant differences in the attitudes of students of agriculture in West Virginia and teachers of agriculture in West Virginia were found in 27 of the 54 concepts. Of these 28 concepts, 18 were significant at the one per cent level of probability and the remaining nine at the five per cent level of probability.
2. Of the eight concepts relating to membership, student attitude was significantly different from teacher attitude on five of the concepts. These differences were primarily in terms of degree of agreement or disagreement with a given concept. In no case was the difference so pronounced that a majority of one group was in the agree categories with the other group in the disagree categories. Students generally were more inclined than teachers to agree with concepts which would give more freedom to the local chapter in determining membership requirements.

3. Student attitude toward the concepts relative to activities of the organization differed significantly from teacher attitude in three instances. Student attitude was more favorable (higher percentage agreed) to cooperative buying and selling, less favorable (lower percentage agreed) to confining money raising activities to those of an agricultural nature, and less favorable toward cooperation with the 4-H Club organization as compared with the teacher sample.
4. As regards adviser-member relationships, student attitude differed significantly from teacher attitude on four of eight concepts. A smaller percentage of students than teachers felt that the adviser should act in an advisory capacity only but a higher percentage of students felt that the adviser should carry out activities in which members were likely to do a poor job. Fewer students than teachers agreed that the adviser should have the right to forbid activities to which the teacher was opposed.
5. Student attitude toward relationship of the local chapter to the state and national organization paralleled rather closely the present practices and policies in the organization. Student attitude differed significantly from teacher attitude with respect to activities

of the local chapter being in harmony with the national organization, to who should determine the number of American Farmer degrees to award, and to the concept restricting the national convention to official state delegates. (Fewer students than teachers agreed with the first two concepts whereas the percentage of students agreeing with the other concept was higher than the teacher sample.)

6. The attitudes of students were significantly different from that of teachers in three concepts pertaining to chapter meetings. Students were less agreeable to taking time for planning FFA activities during vocational agriculture classes than teachers. They were also less agreeable to the concept of having FFA members devote additional time to carrying out chapter activities and to using regular class time for FFA activities.
7. The concepts classified as general comprised fifteen in number. Student attitude was significantly different from teacher attitude on eight of these concepts. However, in three of the eight in which difference were found, the percentages of students and teachers who were in the combined categories of agreed and strongly agreed varied from one to five per cent. Students were less inclined to agree than teachers to the concepts of the

activities of the FFA being in harmony with the policies of the local school, to directing all publicity to the FFA member or the chapter, and to basing awards on progress and achievement. On the remaining two concepts a higher percentage of students than teachers agreed with the restricting of activities to the local level and to publicising all the activities of the vocational agriculture department through the FFA organization.

Conclusions. The following conclusions are based on the analysis of the attitudes expressed by students and teachers to the concepts in the attitude inventory. These attitudes seem to be firmly held by students and teachers as evidenced by the degree of correlation on a retest. Although there was some shifting of responses on the retest, that is from strongly agree to agree or from strongly disagree to disagree and vice versa, the total responses of the retest group closely paralleled the original responses.

1. The responses of teachers in West Virginia and in the North Atlantic Region were remarkably similar with respect to the role of the FFA organization in vocational agriculture. In the four concepts in which attitudes were significantly different between the teacher groups, this difference was in degree of agreement and not in

direction of agreement. That is, one group was strongly agreed to a given concept with the other group less strongly agreed or in the agreed category.

2. Since teachers in both groups expressed a high degree of agreement to those concepts which were in accord with present policies or practices in the organization, it is concluded that they accept and are satisfied with present practices and policies of the FFA organization.
3. Based on the attitudes expressed by teachers, it is concluded the teachers felt that the FFA organization as it presently operates is fulfilling its objectives and purposes, insofar as this study is concerned.
4. Teachers also felt that their role as an adviser in the FFA organization is sufficiently clear and well-defined. They did not feel that the role of the adviser should be altered or changed to the extent of permitting complete student participation in and responsibility for decision making. In other words, teachers felt that the final decision and responsibility for actions and activities of the organization should rest with them.
5. Since student attitude differed significantly from teacher attitude on more than half of the concepts, it is concluded that there are basic differences in the attitudes of students and teachers. These differences were especially prevalent in those concepts regarding

membership, adviser-member relationships, and organizational structure.

6. Students generally were more favorable than teachers toward concepts which liberalized present policies and practices. Students were also more willing than teachers to accept those concepts which would provide for more boy control and local autonomy. It is therefore concluded that they feel improved working relationships between members and advisers and between the local chapter and the state and national organizations would result if changes were made in this direction.
7. Students were more willing than teachers to accept or agree to those concepts which would change existing practices or policies.
8. Finally, although these differences exist between student and teacher groups, the conclusion may be drawn that in no case was the difference so great that it threatened the organization from an internal standpoint. Rather it is concluded that some degree of difference is desirable and even necessary if the democratic process is to be followed.

Implications of the Study. Based on the attitudes of students and teachers with reference to the role of the FFA organization, the following implications seems to be pertinent:

1. Students have very definite feelings and attitudes about the FFA organization. Since the national constitution states very clearly that the organization is boy controlled and operated, it points up the importance of adult advisers on the local, state, and national levels becoming aware of the attitudes and feelings of members if the organization is to remain boy controlled and operated. This is not to imply that the persons in an advisory capacity should accept all or any of the proposals made by active members. However, it does imply making provision for members to voice their opinions with references to policies and practices which affect them.
2. Provisions should be made on local, state, and national levels to hear the ideas and suggestions from members regarding proposed changes in practices relating to the organization. The adult advisers must be willing to consider and accept all reasonable changes approved by the members. Although all or most local and state constitutions provide means for doing this, boy members may not be fully aware of their rights in this respect. Attention should be called to the ways and means of attaining desired changes which are consistent with the aims and purposes of the organization. This statement applies equally well on the local, state, or national level.

3. If members of the organization are to receive maximum benefits in terms of participation, a minimum of rules and regulations should be set-up on the national and state level. Local members and chapters should have the right to determine their practices and policies free from restraining rules and regulations. This implies more local autonomy and less control from the state or national level. It also implies more boy control and less adult regulation.
4. The adult adviser on the local level (the vocational agriculture teacher) is faced with the problem of providing proper guidance to members in terms of practices and policies to be followed. This implies that he must be an adviser and not a dictator; that he must be tactful and diplomatic in his actions; and that he must have an understanding of how the age group acts. He must be aware of the youth's growing urge for independence and self-assertion. He must also be aware of the peer relationship existing among members. And lastly he must accept the short comings or inadequacies of youth and be prepared to give guidance and help where needed.

On the basis of this study, it seems pertinent to point up the differences existing between students and teachers. It seems appropriate to point out that closer

agreement between students and advisers would make for a more desirable relationship and smoother working conditions, on a local, state, and national level. Efforts in this direction should be undertaken wherever such differences exist if the organization is to fulfill its greatest promise and need.

Suggestions for Future Studies. This study, although it brings to light the differences in attitude of students and teachers to the role of the FFA organization, does not provide answers to the many questions involved. Future research might well deal with the following aspects of this problem:

1. What is the role of the national FFA organization in implementing the FFA program on the state and local level?
2. How can the state association of FFA be an effective force in working with local FFA chapters?
3. What should be the role of the local adviser?
4. What changes should be made with reference to membership in the FFA?
5. What should be the relationship of the local chapter to the state and national organizations?
6. How do members of the FFA feel that the organization could be improved to provide them with more worthwhile educational experiences?

These proposed areas of study might be conducted on a local, state, or regional level. In any event, they involve the attitudes or feelings of those associated with the program, including boy members and adult advisers. It would also seem that such studies should be delimited as much as possible so that depth of perception could be attained. They further suggest that the methods involved should be of a type that is suited to securing such information by face to face contacts or interviews.

On the other hand, it is recognized that geographic, economical, and social factors have bearing on this type of study. Emphasis should be placed on meeting a need whether local, regional, or national rather than conforming to a set pattern.

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APPENDIX

APPENDIX A

ATTITUDE INVENTORY

To Teachers of Vocational Agriculture and Members of the FFA Organization:

The following statements are designed to secure your attitude to certain selected concepts in regard to the FFA organization. You are asked to read each statement over carefully and then check the response which most nearly agrees with your feelings. Use an X in the proper space to the right of each concept. Do not take a great length of time to come to a decision. Avoid excessive use of the undecided category. Check one response for each concept.

These concepts may or may not agree with common or accepted practices in the FFA organization in your chapter or state. Disregard present policies and regulations in regard to the FFA organization. Check the response which gives your feeling on each concept. The responses listed are:

<u>Response</u>	<u>Key</u>
Strongly Agree	SA
Agree.	A
Undecided.	U
Disagree	D
Strongly Disagree.	SD

CONCEPT	SA	A	U	D	SD
1. Membership in the FFA should be voluntary.					
2. Membership should be open to both boys and girls.					
3. Membership should be limited to those enrolled in vocational agriculture in the public secondary schools.					

CONCEPT	SA	A	U	D	SD
4. Membership should terminate at graduation from high school.					
5. Enrollment in vocational agriculture should automatically include membership in FFA.					
6. Active membership should be continued until age 21 or 3 years after graduation from high school, whichever is longer.					
7. Membership in a 4-H Club should not prevent membership in the FFA.					
8. Officers of local chapters should be regularly enrolled in high school.					
9. The activities of the FFA Chapter should be carried out by the students, with advice from the vocational agriculture teacher.					
10. The vocational agriculture teacher should act in an advisory capacity only.					
11. The vocational agriculture teacher should encourage the chapter to carry out activities in which he is interested.					
12. The final decision in regard to an activity should be left to the members.					

CONCEPT	SA	A	U	D	SD
13. The vocational agriculture teacher should carry out those activities in which members are likely to do a poor job.					
14. The vocational agriculture teacher should have the right to forbid activities to which he is opposed.					
15. The activities of the local chapter should be in harmony with the policies of the local school.					
16. The activities of the local chapter should be in harmony with those of the national organization.					
17. The adviser should take an active part in helping to plan local chapter activities.					
18. The FFA chapter should sponsor activities designed to improve farming in the community.					
19. The FFA chapter should sponsor activities designed to improve leadership of its members.					
20. The FFA chapter should sponsor activities designed for community improvement.					
21. The FFA chapter should sponsor cooperative buying and selling.					

CONCEPT	SA	A	U	D	SD
22. The FFA chapter should confine its money raising activities to those of an agricultural character.					
23. The FFA chapter should sponsor recreational activities for its members.					
24. The FFA chapter should sponsor social activities for its members.					
25. The FFA chapter should cooperate with the 4-H Club organization in community activities.					
26. All FFA activities should be confined to the local level.					
27. The FFA chapter should cooperate with community organizations.					
28. The FFA chapter should cooperate with other school organizations.					
29. The FFA chapter should stay clear of controversial issues.					
30. The FFA chapter should avoid excess amounts of publicity.					
31. All publicity should be directed to the individual FFA member or to the Chapter.					

CONCEPT	SA	A	U	D	SD
32. All activities of the vocational agriculture department should be publicized through the FFA organization.					
33. District, state, and national activities should be encouraged.					
34. FFA awards should be based on progress and achievement in a selected activity.					
35. Cash awards should be eliminated.					
36. Awards should be designed to provide additional education.					
37. Awards should be designed to provide for advancement in farming.					
38. Regular FFA meetings should be held during scheduled vocational agriculture classes.					
39. Regular FFA meetings should be held at a time that does not conflict with other classes.					
40. Time for planning FFA activities should be taken during vocational agriculture classes.					
41. FFA members should devote additional time to carrying out chapter activities (in addition to regularly scheduled vocational agriculture class.)					

CONCEPT	SA	A	U	D	SD
42. Regular class time should be used for FFA activities.					
43. Regularly scheduled meetings should be held by all FFA chapters.					
44. Regular meetings should be discontinued during the summer months.					
45. A basis for establishing a contest or activity should be its educative value.					
46. The local chapter should have the right to determine its activities with the consent and advice of the local adviser.					
47. The local chapter should have the right to prescribe its own qualifications for membership.					
48. The local chapter should be responsible only to the local school authorities.					
49. The state association of FFA should provide leadership to the local chapters.					
50. The state organizations should determine the number of State Farmer degrees to award.					

CONCEPT	SA	A	U	D	SD
<hr/>					
51. The national organization should only be advisory to the state associations and local chapters.					
<hr/>					
52. The national organization should determine the number of American Farmer degrees to award.					
<hr/>					
53. The national organization should provide information and materials to guide local chapters in their activities.					
<hr/>					
54. The national convention should be restricted to official state delegates.					
<hr/>					

APPENDIX B

List of Jury Members

North Atlantic Region

Mr. H. E. Edwards, Assistant State Supervisor of Vocational Agriculture, Charleston, West Virginia.

Dr. W. A. Smith, Professor of Agricultural Education, Cornell University, Ithaca, New York.

North Central Region

Mr. J. E. Hill, Supervisor of Vocational Agriculture, Springfield, Illinois.

Dr. H. P. Sweany, Associate Professor of Agricultural Education, Michigan State University, East Lansing.

Pacific Region

Mr. Elvin Downs, Assistant Supervisor of Agricultural Education, Salt Lake City, Utah.

Dr. S. S. Sutherland, Professor of Agricultural Education, University of California, Davis.

Southern Region

Mr. J. C. Cannon, Supervisor of Agricultural Education, Montgomery, Alabama. (Deceased)

Dr. E. W. Garris, Professor of Agricultural Education, University of Florida, Gainesville.

U. S. Office of Education

Dr. W. T. Spanton, National Adviser of the Future Farmers of America, Washington, D. C.

Dr. A. W. Tenney, Executive Secretary of the Future Farmers of America, Washington, D. C.

APPENDIX C

Letter to Teachers in West Virginia

WEST VIRGINIA UNIVERSITY
The College of Agriculture, Forestry,
and Home Economics
The Agricultural Experiment Station
MORGANTOWN

Department of
Agricultural Education

March 30, 1956

Dear Vo-Ag Teacher:

The enclosed instrument is designed to secure your attitude to certain selected concepts of the FFA Organization.

I know that as a teacher of Vocational Agriculture you have many duties and responsibilities. However, I feel that a few minutes of your time to complete the enclosed instrument will be well spent. As indicated on the introduction to the instrument, responses of students to the concepts will also be gathered. An attempt will then be made to compare the attitudes of teachers and students to the concepts. I feel that in doing this some guideposts may be set up for future FFA policies.

The instructions for completing the instrument are found on the front page. Your cooperation in this matter will be sincerely appreciated. Will you please return the completed instrument by April 10 in the enclosed envelope. Thank you.

Sincerely yours,

Joe P. Bail, Assistant Prof.
Agricultural Education Dept.

JPB:lh

Enclosures

APPENDIX D

Letter to Teachers in North Atlantic Region

WEST VIRGINIA UNIVERSITY
The College of Agriculture, Forestry
and Home Economics
MORGANTOWN

Department of
Agricultural Education

May 30, 1956

Dear Vo-Ag Teacher:

The enclosed instrument is designed to secure your attitude to certain selected concepts of the FFA Organization. I have received the permission of your state supervisor to contact you in this respect.

I know that as a teacher of Vocational Agriculture you have many duties and responsibilities. However, I feel that approximately thirty minutes of your time to complete the enclosed instrument will be well spent. As indicated on the introduction to the instrument, responses of students to the concepts will also be gathered. An attempt will then be made to compare the attitudes of teachers and students to the concepts. I feel that in doing this, some guideposts may be set up for future FFA policies. Only a selected group of teachers in your state are being contacted. Therefore, it is very important that you complete the instrument, if at all possible.

The instructions for completing the instrument are found on the front page. Your cooperation in this matter will be sincerely appreciated. Will you please return the completed instrument by June 10 in the enclosed envelope. I will be glad to send you a summary of the results. May I wish you success in your work in Vocational Agriculture.

Sincerely yours,

Joe P. Bail, Assistant Prof.
Agricultural Education Dept.

JPB:lh

Enclosure

APPENDIX E

Responses of Teachers in West Virginia to the Attitude Inventory

Con- cept No.	Response					Con- cept No.	Response				
	SA	A	U	D	SD		SA	A	U	D	SD
1	20	22	1*	6*	4	28	26	27	0*	0*	0*
2	6	5	3	20	19	29	14	22	10	7*	0*
3	27	14	1*	7*	4	30	8	26	4	11	4
4	2*	7*	4	26	14	31	9	31	3	9*	1*
5	12	19	3*	16*	3	32	2*	14*	6**	26**	5**
6	7	37	4*	3*	2*	33	11	39	2*	1*	0*
7	30	22	1*	0*	0*	34	12	38	2*	1*	0*
8	47	6	0*	0*	0*	35	1*	4*	5*	29	14
9	40	13	0*	0*	0*	36	7	34	2*	8*	2*
10	29	21	1*	2*	0*	37	16	33	1*	2*	1*
11	6	12	4	24	7	38	8	12	6*	20*	7
12	12	26	8	7*	0*	39	14	28	3*	5*	3*
13	1*	4*	6	23	19	40	5	33	8	4	3
14	11	20	9*	10*	3	41	18	31	1*	1*	2*
15	34	19	0*	0*	0*	42	3	32	9	6	3
16	22	29	1*	1*	0*	43	33	17	2*	1*	0*
17	17	31	2*	2*	1*	44	3*	6*	3	30	11
18	38	13	2*	0*	0*	45	13	31	0*	9*	0*
19	37	15	1*	0*	0*	46	19	31	2*	1*	0*
20	32	20	1*	0*	0*	47	4	8	7	26	8
21	18	15	14	5*	1*	48	3*	6*	8	29	7
22	3	7	5*	29*	9*	49	10	35	5*	3*	0*
23	16	31	3*	3*	0*	50	10	32	1*	10*	0*
24	15	32	3*	3*	0*	51	6	25	9	10*	3*
25	12	34	5*	2*	0*	52	12	36	0*	4*	1*
26	0	7	4	33	9	53	13	36	1*	3*	0*
27	20	31	2	0	0	54	1*	3*	5	26	18

* Indicates responses combined to provide a minimum frequency block of 3 to determine chi square. For example, in Concept No. 1, the responses in U (Undecided category) 1 and D (Disagree category) 6 were combined to form a block of 7. It also follows that the corresponding blocks in the teacher and/or student summary for this same concept were combined in order to make the chi square comparison.

APPENDIX F

Responses of Teachers in the North Atlantic Region to the Attitude Inventory

Con- cept No.	Response					Con- cept No.	Response				
	SA	A	U	D	SD		SA	A	U	D	SD
1	21	8	0*	5*	3	28	18	19	0*	0*	0*
2	4	6	4	14	9	29	11	13	6	7*	0*
3	19	11	0*	4*	3	30	3	16	3	7	8
4	1*	4*	1*	16	15	31	5	17	6	8*	1*
5	6	9	0*	14*	8	32	2*	18*	1**	14**	2**
6	12	19	1*	3*	2*	33	12	21	2*	1*	1*
7	23	13	0*	1*	0*	34	9	21	1*	5*	1*
8	25	12	0*	0*	0*	35	0*	1*	2*	27	7
9	25	12	0*	0*	0*	36	7	19	2*	9*	0*
10	19	12	0*	6*	0*	37	12	20	2*	3*	0*
11	3	17	3	10	4	38	3	12	1*	14*	7
12	13	14	3	7*	0*	39	11	25	1*	0*	0*
13	0*	2*	1*	23	11	40	3	28	1*	2*	3
14	9	18	2*	6	2*	41	14	23	0*	0*	0*
15	28	9	0*	0*	0*	42	4	21	3	6	3
16	23	14	0*	0*	0*	43	22	15	0*	0*	0*
17	14	20	0*	3*	0*	44	1*	8*	3	21	4
18	22	15	0*	0*	0*	45	9	22	1*	3*	2*
19	28	9	0*	0*	0*	46	21	15	0*	1*	0*
20	22	15	0*	0*	0*	47	5	14	3	11	4
21	7	16	8	6*	0*	48	1*	3*	3	25	5
22	6	8	1*	22*	0*	49	10	26	1*	0*	0*
23	14	23	0*	0*	0*	50	7	25	1*	3*	1*
24	14	21	0*	1*	1*	51	7	14	5	11*	0*
25	7	26	1*	2*	1*	52	12	24	1*	0*	0*
26	0*	4*	0*	28	5	53	13	22	1*	1*	0*
27	15	22	0*	0*	0*	54	3	4	3	16	11

* Indicates responses combined to provide a minimum frequency block of 3 to determine chi square. (See detailed explanation in Appendix E.)

APPENDIX G

Table of Chi Squares--Teachers vs. Teachers Response
to the Attitude Inventory

Concept No.	X ² Value	Degrees of Freedom	Level of Signifi- cance	Concept No.	X ² Value	Degrees of Freedom	Level of Signifi- cance
1	3.8301	3	none	28	.0000	2	none
2	1.5489	4	none	29	.8314	3	none
3	.5096	3	none	30	4.6512	4	none
4	2.2418	2	none	31	5.7790	3	none
5	4.9732	3	none	32	4.7749	1	5%
6	4.6350	2	none	33	3.3233	2	none
7	.1968	2	none	34	4.3821	2	none
8	7.2726	2	5%	35	3.2582	2	none
9	.9201	2	none	36	1.7212	2	none
10	2.0126	2	none	37	.9105	2	none
11	5.9468	4	none	38	1.7723	3	none
12	3.6751	3	none	39	6.3518	2	5%
13	4.1986	2	none	40	3.1100	3	none
14	1.8061	2	none	41	4.2063	2	none
15	1.9157	2	none	42	3.1254	4	none
16	5.8437	2	none	43	2.0930	2	none
17	.2134	2	none	44	2.0461	3	none
18	5.0128	2	none	45	.0000	2	none
19	.2347	2	none	46	5.0389	2	none
20	.0000	2	none	47	7.7045	4	none
21	3.2259	3	none	48	2.4821	3	none
22	3.9140	2	none	49	4.9511	2	none
23	6.6323	2	5%	50	1.3073	2	none
24	1.1797	2	none	51	2.1870	3	none
25	.2845	2	none	52	1.5043	2	none
26	2.0128	2	none	53	.9146	2	none
27	2.1190	2	none	54	1.7076	3	none

APPENDIX H

Responses of Students in West Virginia to the Attitude Inventory

Con- cept No.	Response					Con- cept No.	Response				
	SA	A	U	D	SD		SA	A	U	D	SD
1	156	74	6*	8*	3	28	80	136	17*	12*	2*
2	27	56	34	75	55	29	56	86	64	30*	11*
3	55	82	30*	59*	21	30	27	78	37	64	41
4	14*	33*	19	98	83	31	39	96	47	45*	20*
5	72	93	15	48	19	32	45*	113*	36	43	10
6	84	89	21	38*	15*	33	110	118	10*	9*	0*
7	117	92	17*	11*	10*	34	105	117	12*	9*	4*
8	165	70	4*	5*	3*	35	15*	18*	15	92	107
9	142	97	1*	3*	4*	36	70	120	30	24	3
10	56	96	32*	50*	13*	37	78	136	24*	8*	1*
11	37	59	33	89	29	38	56	67	20	78	26
12	104	97	20	18*	8*	39	79	120	9	23	16
13	29*	42*	25	89	62	40	60	85	26	60	16
14	23	79	33	71	41	41	63	128	28*	16*	12*
15	68	132	19*	25*	3	42	46	73	20	89	19
16	78	105	32*	28*	4*	43	133	98	6*	6*	4*
17	105	122	8*	10*	2*	44	19	29	13	96	90
18	157	85	4*	1*	0*	45	55	109	46*	25*	12*
19	148	96	3*	0*	0*	46	90	138	11*	5*	3*
20	137	96	12*	1*	1*	47	37	82	30	63	35
21	95	102	33	15*	2*	48	19	52	55	94	27
22	23	74	49	78	23	49	53	116	35	34*	9*
23	105	115	19	7*	1*	50	54	107	29*	40*	17*
24	82	127	23	14*	1*	51	26	101	62	50	8
25	66	113	34*	28*	6*	52	63	97	34*	42*	11*
26	15*	79*	26	71	56	53	81	137	19*	9*	1*
27	86	126	21*	11*	3*	54	18*	23*	33	74	99

* Indicates responses combined to provide a minimum frequency block of 3 to determine chi square. (See detailed explanation on Appendix E.)

APPENDIX I

Table of Chi Squares--Teachers vs. Student
Response in West Virginia to the Attitude Inventory

Concept No.	X ² Value	Degrees of Freedom	Level of Signifi- cance	Concept No.	X ² Value	Degrees of Freedom	Level of Signifi- cance
1	19.8042	3	1%	28	9.2714	2	1%
2	9.7872	4	1%	29	2.3639	3	none
3	18.1698	3	1%	30	8.3150	4	none
4	1.6478	3	none	31	9.2635	3	5%
5	3.8413	4	none	32	30.4415	3	1%
6	21.8041	3	1%	33	11.3269	2	1%
7	2.8499	2	none	34	11.1016	2	1%
8	11.2778	2	1%	35	7.5238	3	none
9	6.5640	2	5%	36	6.4784	2	5%
10	29.8159	2	1%	37	1.2322	2	none
11	3.3720	4	none	38	2.4270	4	none
12	7.1474	3	none	39	1.4344	4	none
13	8.6456	3	5%	40	19.5380	4	1%
14	11.2180	4	5%	41	7.2263	2	5%
15	29.7973	2	1%	42	30.8830	4	1%
16	11.1893	2	1%	43	1.5299	2	none
17	2.4036	2	none	44	7.1427	4	none
18	2.6188	2	none	45	5.5614	2	none
19	1.6061	2	none	46	.3461	2	none
20	1.8287	2	none	47	14.2342	4	1%
21	8.9650	3	5%	48	6.1450	4	none
22	15.6010	4	1%	49	7.4721	3	none
23	3.5270	3	none	50	5.0672	2	none
24	1.3293	3	none	51	2.1205	4	none
25	6.6884	2	5%	52	16.5687	2	1%
26	24.4561	3	1%	53	2.4753	2	none
27	3.6381	2	none	54	9.3958	3	5%

APPENDIX J

Scores on Test-Retest to Determine
Correlation Coefficient, Teachers in West Virginia
 $r = .9790$ (SA = 3, A = 1, U = 0, D = -1, SD = -3)

Concept No.	1st Score	2nd Score	Concept No.	1st Score	2nd Score
1	8	7	28	19	18
2	-7	-9	29	15	16
3	13	12	30	13	10
4	-4	-7	31	8	13
5	11	13	32	6	4
6	14	12	33	12	15
7	18	20	34	16	15
8	22	21	35	-9	-7
9	18	18	36	14	11
10	-2	-1	37	17	15
11	8	4	38	2	0
12	17	17	39	12	12
13	-17	-15	40	11	9
14	11	10	41	15	15
15	18	18	42	6	5
16	16	17	43	20	19
17	19	19	43	13	11
18	20	20	45	14	13
19	22	21	46	15	15
20	20	20	47	-7	-9
21	10	14	48	10	11
22	-10	-8	49	15	14
23	17	19	50	13	15
24	17	15	51	7	10
25	13	15	52	15	14
26	9	8	53	15	16
27	19	19	54	-10	-10

APPENDIX K

Scores on Test-Retest to Determine
Correlation Coefficient, Students in West Virginia
 $r = .9972$ (SA = 3, A = 1, U = 0, D = -1, SD = -3)

Concept No.	1st Score	2nd Score	Concept No.	1st Score	2nd Score
1	63	55	28	58	57
2	-5	-4	29	3	7
3	1	0	30	-43	-47
4	-38	-40	31	17	17
5	26	29	32	34	34
6	28	30	33	66	68
7	59	62	34	62	62
8	65	68	35	-55	-58
9	68	67	36	45	50
10	17	19	37	61	62
11	-23	-22	38	24	26
12	52	54	39	49	54
13	-19	-24	40	53	56
14	-12	-5	41	58	60
15	45	51	42	3	8
16	43	45	43	71	72
17	59	58	44	-47	-48
18	66	68	45	32	33
19	66	67	46	62	64
20	62	60	47	-9	-8
21	51	53	48	-31	-28
22	-45	-48	49	54	51
23	61	63	50	26	18
24	52	54	51	11	11
25	44	45	52	25	28
26	-41	-45	53	60	62
27	62	61	54	-60	-62

APPENDIX L

List of High Schools in West Virginia From Which Teachers Cooperated in the Study

Arthurdale	Hillsboro	Parsons
Aurora	Institute	Peterstown
Beaver	Kasson	Philippi
Blacksville	Kenova (2 teachers)	Pt. Pleasant
Branchland	Kingwood	Renick
Bristol	Lewisburg	Ripley
Buffalo	Mannington	Ronceverte
Cairo	Marlinton	St. Marys
Cameron	Martinsburg	Sandstone
Capon Bridge	Mathias	Sherrard
Circleville	Mill Creek	Sistersville
Elkview	Milton	Spanishburg
Franklin	Moorefield	Summersville
Grafton	Moundsville	Surveyor
Grantsville (2 teachers)	New Martinsville	Talcott
Hamlin	Normantown	Troy
Harmon	Parkersburg	Walton

APPENDIX M

List of High Schools by States in the North Atlantic Region from which Teachers Cooperated in the Study

Teacher

Delaware

Delmar
Henry C. Conrad
Lord Baltimore
Millsboro
Selbyville
Smyrna

Chester Lathrop
Robert Peoples
Raymond Swadley
William H. Jenkins
Jack Clinch
Leonard Hitch

Maryland

Caroline
Easton
Lisbon
Mt. Airy
North Hartford
Oldtown
Stephen Decatur
Sudlersville
Union Bridge
Washington

George W. Clendaniel
Glenn W. Lewis
Carl Bevard
Harold Thompson
W. R. Nuttle
J. H. House
Russel Jenkins
John Miller
Reese Poffenbarger
Howard H. Anderson

New Hampshire

Alvirne
Colebrook Academy
Keene
Kennett
Laconia
New Boston

Brenton Battersby
George S. Frizzell
Nathan Knight
William Annis
Wayne Shipman, Jr.
William R. Powers

New Jersey

Bridgeton
Canden County Vocational
Cape May County Vocational
Flemington
Nutley
Pilesgrove Township
Salem
Sussex County Vocational
Swedesboro

Alvin Mahan
Harry O. Yates, Jr.
Lee W. Covnter
Fred Braun
Milton H. Anderson
Franklin D. Miller
Champion C. Coles, Jr.
Charles P. Leaver
Jack B. Stowman

Vermont

Cambridge
Danville
Essex Junction
Highgate
Peoples Academy
Thetford Academy

Herbert Shipman
Mervyn Willey
Donald Grady
Merlin Wells
Edward Perkins
William Peters

APPENDIX N

List of High Schools in West Virginia from which
Students Cooperated in the Study

Beaver
Blacksville
Bristol
Burnsville
Capon Bridge
Circleville
Clay
Elizabeth
Gap Mills
Harman
Harrisville
Hedgesville
Middlebourne
Morgantown (University High School)
Philippi
Ripley
St. Marys
Sherrard
Spanishburg
Walton
Wardensville

ROOM USE ONLY.

~~JAN 27 1960~~

~~MAR 12 1960~~

~~APR 18 1961~~

~~MAY 9 1961~~

~~AUG 31 1962~~

~~JUN 5 1964~~

ROOM USE ONLY