TOWNSEND, CHRISTINE DAVIS

FFA PARTICIPATION AND PERSONAL DEVELOPMENT AS PERCEIVED BY IOWA VOCATIONAL AGRICULTURE SENIORS

Iowa State University PH.D. 1981

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark __√__.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages __√__
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Other _____

FFA participation and personal development as perceived by Iowa vocational agriculture seniors

by

Christine Davis Townsend

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Major: Agricultural Education

Approved:

Signature was redacted for privacy.

In Charge of Major Work

Signature was redacted for privacy.

For the Major Department

Signature was redacted for privacy.

For the Graduate College

Iowa State University
Ames, Iowa

1981

TABLE OF CONTENTS

CHAPTER I. INTRODUCTION

In continuing their support of extra- and intracurricular activities in the school systems, educators demonstrate their belief that student growth requires more than academic instruction. Extra activities represent, in a sense, a special curriculum to instruct students in areas not covered in academic classrooms. A student's development in areas of intra- and interpersonal relationships is a legitimate concern because success beyond graduation may be linked to these feelings. Donald Super and Martin J. Bohn, Jr. (1970) suggested that vocational development and self-concept formulation followed the same pattern through a person's life and further contended that an individual's occupational preference was an attempt to implement his self-concept. It follows, then, that the firmer the self-concept of the student, the easier the transition from schooling to the working environment.

Yarworth and Gauthier (1978) investigated the relationship between student self-concept and participation in extra- and curricular activities in high school. Their review of literature cited studies which interpreted a correlation between student self-concept, school participation, academic achievement, and post high school career aspirations. However, no one had examined the direct relationship between self-concept and participation in school activities. From self-reported responses of 459 Pennsylvania high school students, the researchers discovered that the social self, identity, and moral-ethical self were contributors to the total activity participation. The researchers concluded that "there is a

strong relationship between both academic achievement and participation and the scores the students obtained on four separate measures of self concept" (Yarworth and Gauthier, 1978, p. 342).

Views such as Yarworth's and Gauthier's prompted greater emphasis on forming and continuing youth organizations for vocational education programs. In addition, the United States Senate Committee on Labor and Public Welfare (1968) also supported youth organizations. Commenting on the Vocational Education Act of 1963, the committee felt youth organizations were "excellent supplements to regular classroom instruction by affording an opportunity for personal development, for training and experience in leadership, and for using initiative and enthusiasm in promoting vocational agriculture" (United States Senate Committee, 1968, p. 237).

The organization for students of vocational agriculture is the Future Farmers of America (FFA), which, since its origin in 1928, has continued to serve its members as an agent for agricultural skill enhancement and personal development. The objectives of the organization exemplify its overall strategy of developing leadership, cooperation, and citizenship for agriculture students.

Structurally, the FFA operates as an intracurricular segment of the vocational agriculture program. Students are given opportunities to take part in a variety of personal development activities including leadership, communications, citizenship, service to others, social skills, management of financial resources, and individual adjustment (Future Farmers of America, 1972). They are afforded opportunities to advance through a

degree program (greenhand, chapter farmer, state farmer, and American farmer) and participate in agricultural skills competition. Public speaking contests, community service projects, and agricultural proficiency awards also provide the students with enriched agricultural skill development. The FFA is a vocational youth organization which operates as an important supplement to the classroom and aids the educational and personal development of the students with activities not possible in the classroom.

Statement of the Problem

Future Farmers of America (FFA) permits vocational agriculture education to be extended beyond the classroom. Since its founding in 1928, the youth organization has provided its members opportunities to further develop agricultural skills and to grow in leadership and personal development competencies.

Kantner and Bender (1967) described the FFA as a component of the instructional program of vocational agriculture. With a national jury of educators, they identified its purposes as the development of desirable abilities in members to:

(1) choose and prepare for an agricultural occupation;

(2) develop agricultural leadership;

(3) foster community service, citizenship, and patriotism;

(4) improve scholarship;

(5) make continuous personal and vocational growth;

(6) make effective use of leisure time;

(7) strengthen the confidence of members in themselves and in their work;

(8) improve the home and home environment;

(9) recognize the vital role of agriculture in society;

(10) conserve human and natural resources;

(11) develop cooperation, brotherhood, and international goodwill.

In 1976, Hampson, Newcomb, and McCracken questioned whether the leadership and personal development competencies outlined by the FFA were adequate. Specifically, they sought to identify which leadership and personal development competencies should be included in the vocational agriculture curriculum according to the competencies performed at the management, mid-management, and labor categories of agricultural occupations. Their study concluded that leadership and personal development competencies performed in FFA activities were perceived as important and necessary traits for agriculture employment success.

Not only do agribusiness leaders consider the leadership and personal development aspect of the FFA as important, but chapter advisors and members hold the same sentiment. Braker (1973), in determining the image of the FFA, received 76 chapter responses to his national survey. Respondents agreed that development of agricultural leadership, citizenship, and cooperation were the major foundations upon which the organization should be based.

Former national FFA officers concurred with the leadership and personal development objectives of the organization (Lasap, 1971). The

former officers rated their leadership development and citizenship awareness as the greatest contributors to their success. However, they felt the FFA met those objectives better during their past memberships than it did for the members today.

The problem, then, with which this study is concerned is the following: Are the objectives of the FFA fulfilling their purposes and do these objectives address the topic of an active member's personal development? Do activities of the FFA provide an effective means of achieving the objectives of the organization?

Purpose of the Study

The purpose of the study is to describe the relationship between participation in FFA activities and a member's personal development. The specific objectives of this research are to answer the following research questions.

(1) Is there a difference between the activeness of chapters and FFA members' self-perceived personal development or their participation in FFA activities?

(2) Is there a relationship between a student's self-perceived personal development and total high school FFA participation?

(3) Is there a difference between students' participation in certain FFA activities and their self-perception of themselves in the ten scale scores and their overall personal development?

(4) Is there a difference in students' level of FFA participation and their self-perception of themselves in the ten scale scores and their overall personal development?

(5) How are the limited, medium, and high FFA participants profiled according to the ten scale scores and overall personal development?

Background for the Study

In recent years, the FFA has undergone many transitions including changes in the individuals served and the activities covered (Carter, 1979). Initially, the organization was designed for rural male youths with exclusive orientation to production agriculture. Today, however, membership is generated from diverse socio-economic, cultural, and ethnic groups requiring the revision of activities to meet the needs of urban as well as rural students. Recognizing a need for evaluation and assessment of today's FFA, the Agricultural Education Department at Iowa State University requested funds for a research project from the Agriculture and Home Economics Experiment Station. This project, beginning in 1980, had the following objectives:

(1) to determine how membership in agricultural youth organizations contributes to achieving the basic goals and objectives of agricultural education programs;

(2) to determine personal values and/or benefits gained from participation in agricultural youth organizations;

(3) to determine factors which influence the degree of participation and involvement by students in agricultural youth organizations;

(4) to develop and evaluate organized approaches for informing and teaching students about agricultural youth organizations.

This study is concerned with the first objective--determining how membership in the FFA contributed to achievement of the basic goals and objectives of the agricultural education program. According to project procedure, this objective is accomplished by assessing the purpose, objectives, and goals of agricultural youth organizations in relation to the total programmatic goals in agricultural education.

The Iowa State University Committee on the Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighed by the potential benefits and expected value of the knowledge sought, that confidentiality of data was assured and that informed consent was obtained by appropriate procedures.

Definition of Terms

Senior vocational agriculture student refers to a twelfth grade student enrolled in a vocational agriculture course in Iowa. The course may be entitled Vocational Agriculture IV or another similar title. The student must be an active member of the FFA to be included in the study.

Future Farmers of America refers to the intracurricular vocational youth organization conducted as part of the vocational agriculture program. It may also be referred to as the FFA.

Personal Development Inventory (PDI) refers to the 57 item instrument developed to measure a student's personal development. The PDI is a rational-theoretical self-assessment questionnaire from which a total personal development score and ten scale scores are obtained.

Leadership scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to develop competent and aggressive agricultural leadership."

Self-confidence scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to strengthen the confidence of students of vocational agriculture in themselves and their work."

Occupational scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to create more interest in the intelligent choice of agricultural occupations."

Home surrounding scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to encourage members to improve the home and its surroundings."

Agricultural orientation scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objectives: "to create and nurture a love of agricultural life" and "to participate in worthy undertakings for the improvements of the industry of agriculture."

Citizenship scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to develop character, train for useful citizenship, and foster patriotism."

Cooperation scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to participate in a cooperative effort."

Thrift scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to encourage and practice thrift."

Scholarship scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to encourage improvement in scholarship."

Health and recreation scale refers to items within the PDI which were developed to assess the degree of attainment of the FFA objective: "to provide and encourage the development of organized recreational activities."

Scale scores refers to the calculation of a score based on the answers given for each of the ten scales.

School refers to the Iowa high schools in which the research was conducted. Also, the term may be used to represent the vocational agriculture programs or senior vocational agriculture class that participated in the study.

CHAPTER II. LITERATURE REVIEW

Introduction to Literature Review

The literature review provided a framework for this study of FFA activity participation and personal development. Insights into the concept of personality and the construction of assessment instruments were gathered from initial investigation of the literature. The second part of the review was concerned with the effectiveness of various groups in changing a person's attitudes or perceptions concerning his or her personal development. Then the FFA was studied to determine any methods used to foster personal development. The literature review, therefore, was divided into three sections.

(1) The measurement of personality by self-assessment instruments.

(2) The attempts of various organizations to develop leadership and other personality characteristics.

(3) The Future Farmers of America and the accomplishment of its personal development objectives.

The Measure of Personality Traits by Self-Assessment

The mysteries of individual personality factors have been studied for decades. Sherman (1979) reported that even the definition of personality had undergone scrutiny. His research concluded the following: "Personality is the characteristic pattern of behaviors, cognitions, and emotions which may be experienced by the individual and/or manifest to others" (Sherman, 1979, p. 1). Considering this complex subject, Allport (1937)

stated, "if we want to know how people feel, what they experience, and what they remember, what their emotions and motives are like, and the reasons for acting as they do, why not ask them?" (Allport, 1937, p. 163). Drawing from Allport's comments, personologists came to a consensus that people can be depended upon to report their feelings accurately. They generally agreed that people understand themselves, are able to communicate the information, and if asked, will share their thoughts.

A concern arose, however, when the researcher desired to compare two personalities to detect differences. Here, subjective communications from two people lacked a common basis from which to compare and no conjectures were possible. Realizing this dilemma, during World War I, Woodworth (1920) developed the Personal Data Sheet, the initial questionnaire attempt at personality assessment. The concept of Woodworth's instrument, and those following, was that persons could describe themselves in terms of prepared statements. If the same set of statements was used for all subjects, then it was possible to compare their similarities and differences.

These personality determinants were soon developed into more complex instruments containing sections to measure different segments of personality. The Minnesota Multiphasic Personality Inventory, for example, contained ten scales for assessment of psychological abnormality (Sherman, 1979). Included in the instrument were scales for hypochondriases, depression, hysteria, psychopathic deviation, masculinity-femininity, paranoia, psychasthenia, schizophrenia, hypomania, and social introversion. Each scale was "a limited set of descriptive statements, also called

items, that were relevant to some common trait" (Edwards, 1970, p. 4). A scale score could be determined for each individual according to how the persons described themselves in terms of the items. Consequently, individual differences in scale scores were interpreted to represent individual differences in the trait which the scale was designed to measure.

Of the four construction methods for development of a self-assessment personality questionnaire (content validation, rational-theoretical, empirical, and factor analytic) (Fiske, 1971), the rational-theoretical approach is discussed here due to its significance to this study. The rational-theoretical questionnaire used was based on previous theories and was developed with the hypotheses of the present research in mind. Initially, the test developer selects questions which "seem capable of eliciting responses which reveal either a particular characteristic or the general structure of personality" (Sherman, 1979, p. 166). Professionals familiar with the basis-theory may then be called in to review the questions and rate the relevancy of each item. The rational questionnaire is then utilized to measure individual differences with respect to some common trait or attribute.

Numerous rational-theoretical questionnaires have been devised throughout the study of personality. Murray's Personology Theory of 1938 served as a foundation for many instruments. Murray suggested the study of personality must be concerned with person-environment interactions. He postulated there existed an interplay of forces from within the person and of forces from outside of the person. Needs developed from each person's

desires and could be classified as such if a need response was likely to recur under any given conditions. Murray theorized that a single behavior could serve to bring about more than one kind of mental satisfaction.

On the basis of Murray's statements, Edwards (1953) designed the Personal Preference Schedule (EPPS) to measure the strength of manifest secondary needs in his subjects. His instrument was developed to be administered in research situations where quick and convenient measurements were required. His rational instrument assessed a number of relatively independent, normal personality variables. The 210 items were written in couplet form and represented 15 needs defined by Edwards. His subjects were asked to indicate which of the self-descriptive statements most closely described themselves.

Rotter (1954) developed another theory which became the framework for future rational-theoretical questionnaires. His social learning theory was concerned with the value of one's needs fulfillment and the consequential behavior. Rotter defined needs as observable behaviors which lead to similar goals. As an example, the need to dominate was described for someone giving instructions, arguing, and physically beating another person.

Liverant (1958) built the Goal Preference Inventory (GPI) from Rotter's theory of needs. The GPI attempted to measure the strengths of four needs of college students. These needs were:

(1) academic recognition;

(2) social recognition;

(3) academic affection; and

(4) social affection.

To accumulate behavior statements concerning the four needs, Liverant solicited the aid of psychology students and faculty. They identified behaviors in which college students might engage if they were trying to satisfy these needs. To reduce the number of behaviors, a panel of four judges was asked to eliminate behaviors not suited to the construct of the defined needs. A questionnaire resulted containing 20 behavioral referents for each need.

Another rational-theoretical questionnaire was developed by Loevinger (1948) who incorporated a Thurstone-type attitude scale. Loevinger felt not all responses could be positive; therefore, he set up a rating scale for use by the subject from which he could identify some type of weight factor for each trait studied. The questionnaire consisted of a series of statements expressing attitudes on topics such as war and religion. The statements were then rated by judges as very favorable attitudes to very unfavorable attitudes. For items where the judges' positions were in close agreement, the item was given a judges' scale score and included on the final instrument. After the subjects had responded to the statements, they were scored according to the judges' scale score for each agreeing statement, and were given a total score for the quesionnaire. The researcher was then able to compare subjects as well as weigh their responses.

Edwards (1970) summarized the steps in developing rational personality questionnaires as used by the previous personologists. First, each

scale was designed to measure a well-defined common trait. Statements were composed to investigate how individuals with a high degree of a trait differ from those possessing a low degree. Next, the items were written to discover what actions of a subject led him/her to have a high degree of a particular behavior. These items formulated the initial pool for selection of the final questions for the rationally-developed personality instrument. To insure elimination of redundant or potentially misinterpreted items, assistance from a panel or jury of experts was recommended and solicited.

The correctly constructed questionnaire allowed solicitation of valid responses from the subjects. However, Fiske (1971) warned of measurement objectivity being threatened by irrelevant effects. To reduce this threat, he suggested the researcher administer the questionnaire in a setting so the personality test had essentially the same meaning for all subjects and minimized the extent to which the setting itself contributed to variance in the responses. The subjects needed to be introduced to their task with clear and unambiguous directions so that the completion of the questionnaire was acceptable and interesting, and nothing would distract them from it. Fiske also indicated that the items be selected so that they had the same inherent meaning for all subjects. Additionally, the items were stimuli to which subjects responded differently as a function of their differences on the variable defined. A response format was devised to facilitate the subjects' answering processes. They needed to be able to respond readily and feel confident that the responses would reflect their attitudes.

Summary of Personality Assessment

Research by personologists identified the rationale behind studying personality traits and methods of data collection. For many years, researchers studied personality factors using observation and interview techniques. The questionnaire format arose in 1920, allowing quicker assessment of character and comparison between individuals. The self-assessment questionnaire was further refined to include sub-scales for accurate gauging of specific traits found in the personality. The rational-theoretical assessment of personality, which combined the use of the self-assessment questionnaire and sub-scales, was based on theories relevant to the desired query. Instruments were refined through the use of experts and were administered under conditions to solicit factual responses from the subjects. The review of "personality" literature supported the concept of personality measurement and comparison for research purposes.

Leadership and Personal Development Activities

Many diverse activities have been initiated to improve the personal development of human beings. Results of workshops, seminars, and courses in leadership and personal development have been mixed--some concluded outstanding improvement in the participants' outlooks, attitudes, and abilities while others reported the participants remained unchanged. Numerous studies have been conducted. They are diverse in technique and results, as the following review will demonstrate.

Carlin (1969) wished to determine the cause and effect of participation in the "in-school" Neighborhood Youth Corps program upon the attitudes and behaviors of high school students. The study originated from the San Diego Unified School District and included selected students from four high schools. Two groups were constructed with the experimental group participating in the "in-school" Neighborhood Youth Corps program and the comparison group not participating. Both groups were administered the "STS Youth Inventory" before and after the treatment to gather data concerning their feelings about school, future, self, others, and "things in general". Scholarship, citizenship, attendance, disciplinary referral, and suspension data were collected from the participants' and nonparticipants' school records. Results occurring from participation in the Neighborhood Youth Corps were mixed. Participation had no effect on school attendance, attitudes toward school, future, self, others, "things in general", and citizenship. However, the Corps participants did show a significant reduction in disciplinary referrals and suspensions from school.

Just as the Neighborhood Youth Corps resulted in some findings indicating no difference between participants and nonparticipants, Perry (1980) found no impact of leadership training on interpersonal and intrapersonal development. This researcher studied 66 middle management bank personnel from California who participated in a leadership workshop. He hypothesized that as leadership skills improve, so do the quality of the leader/follower relationship and the level of the leader's self-concept.

The results of the study showed no significant change in self-perceptions or supervisor's perceptions on the Individualized Management/Leadership Profile from the pretest to posttest. Also, no difference occurred following the workshop on the Tennessee Self-Concept Scale. Perry concluded that the leadership training workshop had no overall effect on changing leadership qualities or improving self-concept of participants.

Shirley Curtis (1979) initiated a class in personal development in attempting to increase self-actualization of students. She, too, discovered no difference in students' attitudes following the course. Curtis administered Shostrom's "Person Orientation Inventory" (POI) to 92 students: 44 in the control group and 48 in the treatment group. Prior to and following personal development instruction to the treatment group, the students were given the 12 scales of the POI and the "College Qualification Tests". The course had no significant effect on the mean scores for any of the POI scales. However, observations made by the researcher and faculty and student comments indicated that the students did improve in their personal development and growth toward self-actualization.

On the other hand, many studies have reported a significant relationship does occur between participation in an activity and a person's change in attitudes or perceptions. Snelling (1973), concerned with student attitudes and participation in curriculum development, distributed curriculum perception questionnaires to 200 randomly selected junior high school students. Again at random, he asked 50 of these students to participate in curriculum development, and selected 50 to remain as the comparison

group. A form of Osgood's "Semantic Differential" was administered to these 100 students to register any attitudinal changes before and after the curriculum development treatment. One of the many results of the study showed a change in attitude following participation. The participating group experienced a greater increase in their interest in school subjects than did the nonparticipating group of students.

A seminar for highly gifted students was conducted by Goodwin (1973) in San Diego, California. In the coinciding research, 215 students in seventh to twelfth grades participated in the study. Goodwin hypothesized that a difference would occur between participants and nonparticipants of the seminar on school-related matters and attitudes. Following analyses of the "STS Youth Inventory" and school records, Goodwin reached the following conclusions. Scholarship and citizenship marks were higher for the seminar participants and attitudes of the seminar students showed less concern (worry). It was then suggested that the San Diego seminar program was effective in meeting its goals and creating desirable changes in attitudes of its participants.

McCollum (1979) tested three related hypotheses through his research of high school students in Alaska. First, he stated that participants in a multicultural leadership training program would show an increase in self-esteem/self-concept. Second, the participants would show an increase in leadership behavior, and third, they would have increased intergroup effectiveness. To test his problem, he randomly selected 13 students from a group of 50 applicants to participate in a multicultural leadership

training workshop. McCollum's results showed a significant increase from pretest to posttest scores for self-esteem/self-concept, leadership behavior, and intergroup effectiveness of the workshop participants.

Besides the special workshop or seminar, another type of personal development organization exists within the high school. Vocational youth groups were formed as an extension of the vocational classroom specifically to enhance the social and leadership competencies of the student. Rathbun (1974) looked at these vocational clubs to study their relationship to a student's leadership, citizenship, character, willingness to accept responsibility, confidence in self and work, and cooperative spirit and effort. He mailed questionnaires to 894 high school vocational education seniors. Parents, vocational instructors, and college advisors or employers were questioned in regard to their perceptions of these selected students. Results of this descriptive study firmly upheld the premise that vocational youth organizations enhanced a student's personal development. First, active students were perceived by the adults as having higher levels of ability in leadership, citizenship, character, responsibility, confidence, and cooperation than less active students. Also, the length of time enrolled in a vocational club was found to be related to a student's leadership, citizenship, and six personal variables. The level of participation was the strongest predictor of leadership, citizenship, character, responsibility, confidence, and cooperation. The length of membership and level of participation were the strongest predictors of employment success.

In a more specific study, Clark (1978) looked at one vocational youth organization--Distributive Education Clubs of America (DECA). He was concerned with the benefits of the club for the students and the extent of leadership and self-confidence attitude development within the chapters. For the research, students from randomly selected Minnesota distributive education programs were compared as to their DECA activity and their leadership and self-confidence. As to their level of activity, 17.1 percent of the DECA students recorded "none", 19.2 percent "little activity", 27.4 percent "somewhat active", 22.5 percent "active", and 13.8 percent "very active". Nearly one-half of the students rated DECA as having above average importance to them. A major finding of the study concluded that the leadership abilities of students increased with participation within the chapter. On the leadership scale of the Minnesota Counseling Inventory, the high activity students differed significantly when compared to the middle and low activity student.

Summary of Leadership and Personality Activities

Although many components of personality could be examined, the objectives of this study were concerned with leadership and personal development competencies. These traits were identified from their connection to the objectives of the FFA.

Various means of personality development have been attempted including workshops, seminars, in-school training, courses, and youth organizations. Not all endeavors were successful at meeting the goals of increasing leadership behavior and personal development. However, positive

results were concluded from various attempts, and changes in attitudes were recorded in the areas of leadership, citizenship, scholarship, group effectiveness, responsibility, confidence, character, and cooperation.

The FFA and Personal Development

Spooner (1974) continued the investigation of vocational youth organizations by researching their benefit to the Colorado secondary vocational education programs. He surveyed 383 students, stratifying his sample to be proportionate to the memberships of the six vocational youth organizations. Spooner also questioned 162 advisors, 36 administrators, 383 parents, and the training sponsors (employers) of the students. The research concluded that all populations agreed that vocational youth organizations were an important contribution to the vocational education of the student.

Spooner separately analyzed the responses from members of the six different organizations. Members of the Future Farmers of America (FFA) had more positive responses than other clubs' members in several areas. FFA students felt the organization was part of their vocational training and that it offered a variety of local activities to aid in their education. They indicated that the competitive activities (contests) were helpful in job preparation and also felt membership in the organization aided job exploration.

Students included in Spooner's study agreed with some of the major purposes of the FFA as they identified the FFA as an instructional component of agricultural competencies and agricultural career placement and

exploration. Gilbertson, Rathbun, and Sabol (1975) studied California FFA members whose assessment of the organization included more of its major objectives. The purpose of the study was to ascertain reasons of nonparticipation in the FFA by vocational agriculture students and to develop strategies to increase membership percentages. Schools were randomly selected according to membership to include high, medium, and low membership classifications. Nineteen schools comprised the final sample and 504 students participated from those schools. A questionnaire was administered to the members and advisors of the selected schools. All students agreed that cooperation and leadership training were an important part of the FFA. They indicated that contests provided an outlet for agricultural skill development, and contest preparation could be a part of classroom instruction. The students commented on recognition activities within the FFA by noting:

(1) the FFA provided enough activities for all to gain recognition;

(2) outstanding students had ample opportunity for awards; and

(3) recognition was available for all areas of agricultural interest.

The FFA members also suggested that the organization provided for citizenship development.

White (1977) expressed a concern for the value of FFA contests and their role in meeting the aims of the FFA. His study was based upon perceptions of secondary school principals, parents, FFA members, and vocational agriculture teachers in Texas. His total sample numbered 1124 individuals from 281 school districts. From the responses, four results

related directly to the purposes of the FFA. First, the group indicated that contests helped promote activities which lead to desirable changes in personal growth. Second, the competitive atmosphere did not decrease cooperation among members. Similarly, the respondents felt contests helped meet the FFA aim concerning development of agricultural cooperation among the members. A fourth agreement yielded that FFA contests helped students develop citizenship. White concluded that educational values were received from contest participation and these values were carried over into life's future activities. He supported the concept of participation in contests by indicating that they promoted desirable changes in behavior necessary for personal growth.

Hylton (1977) examined the career educational function of the FFA and found the organization fulfilled its aim to increase agricultural career exploration. He reported that the FFA accomplished this objective by supplementing the classroom with "hands-on" experience and "learning by doing" projects. The organization provided a stimulus for achievement through leadership programs, competitive events, and direct community contacts. Hylton found that a third method for accomplishing the career objective was to allow members the opportunity to observe a variety of career areas and receive detailed information in specific areas of interest. As the aims of vocational youth organizations were scrutinized, career awareness was found to be successfully accomplished by the FFA through the combined effort of school and community.

The studies summarized thus far concentrated on what values of the FFA were and how the activities fulfilled the purposes of the FFA. Welton

and Bender (1971) did research to determine how student characteristics affected participation within the FFA. They sampled 112 vocational agriculture departments throughout the United States to investigate the relationship between vocational agriculture students' degree of participation in FFA activities, attributes of the FFA chapters, and personal characteristics of the students. Welton and Bender found FFA students were active within their chapters as 70 percent of the students attended all of the chapter meetings and participated in chapter activities. Sixty-one percent were involved in chapter committees and 28 percent held a chapter office. District activities were participated in by 44 percent, while 41 percent participated in state and 9 percent participated in national activities. Welton and Bender also described the relationships between participation levels and personal characteristics. They related significant positive correlations for participation in FFA activities and participation in school and community activities, years of vocational agriculture, grades in high school, number of occupational experiences, and socio-economic status. Welton and Bender stated in their conclusions that participation increased with opportunity provided by the chapters but the reported correlations also showed participation increased with other factors as well.

Ebbers (1968) contended that a relationship existed between FFA participation in high school and subsequent college activity participation. He questioned 400 Iowa State University students with either a two-year or greater membership in the FFA or one-year or less membership in the organization. The focus of the study was to determine if a relationship

existed between FFA leadership activities to participation in college activities and between selected personal factors to participation in high school and college activities. In order to compute a participation score, Ebbers consulted a panel of three university professors who placed a value on each activity listed on the instrument. The results indicated the previous FFA students had a higher university activity score as well as indications of higher activity in high school and community activities. Ebbers concluded that FFA participation was an influence on activity participation at the university level.

Hampson (1977) researched what leadership and personal development competencies were needed by agricultural employees. He surveyed 280 individuals from the management, mid-management, and labor levels of Ohio agricultural industries. Of the persons identified as agricultural leaders, one-half were found to be past FFA officers. Thirty-nine percent had past FFA experience with average membership of 2.3 years. One conclusion from the description of the agriculturalists was that FFA participation was an important component of an individual's industry success.

Summary of the FFA and Personal Development

Vocational youth organizations were supported in the literature as a means for increased student development. As a vocational youth organization, the FFA was perceived to aid career instruction, cooperation, leadership development, agricultural skill refinement, citizenship. Vocational agriculture students who participated in FFA activities also participated in other high school and community activities, had a higher number of

occupational experiences, had higher grades, and those in college participated in a greater number of university activities. In an industry setting, past FFA experiences were a desirable component and were found to be a significant factor in the background of agriculture leaders. The literature revealed past research in regard to the objectives, methods, and results of the FFA, and how they related to the members' leadership and personal development. No individual study evaluated the precise relationship between a member's activity within the FFA and his or her leadership and personal development. Consequently, researchers assumed that the leadership and personal development objectives were fulfilled by participation in the organization's activities.

Summary of Literature Review

Personality assessment has been obtained from the self-perceptions of subjects. Their own insights were gathered to identify various traits within the personality. In relation to this research project, it was ascertained that leadership and personal development traits may be altered through participation in various activities. It was not determined, however, what factors caused a positive change for the participants. The FFA was one organization that purported to cause changes in the leadership and personal development of its members. It was assessed by several studies as accomplishing these objectives but the legitimacy of these assumptions was never documented. The literature review formed the basis for this study. First, it clarified that there was a need for a study to determine

whether the FFA accomplished its objectives. The method of self-assessment of personality and comparison of traits within the personality was also supported in the literature.

CHAPTER III. EXECUTION OF STUDY

The primary purpose of this study was to determine if a relationship existed between students' participation in selected FFA activities and their leadership and personal development. To accomplish this objective, the following methods and procedures were used.

Design

An ex post facto approach and a co-relational design were used in this study. As with all ex post facto research, the treatment occurred before the research and the subjects self-selected the level of the independent variable to which they were exposed. The independent variable was the type of FFA activity participation with 2 levels--participation and no participation. The dependent variables were leadership and personal development competencies. Both the independent and dependent variables were measured after the fact by two instruments. The level of FFA activity participation was ascertained from student responses on the FFA Activity Participation Inventory. Leadership and personal development competencies were measured from the self-assessment instrument called the Personal Development Inventory (PDI). An advantage of the co-relational design was that it allowed comparison of both sets of data to determine the relationship between the two variables.

The design for this study is represented by the following model:

$$C \quad O_1$$

$$O_2$$

O_1 depicts an inventory of student participation in FFA activities to create a participation score.

O_2 represents an inventory to collect data of students' self-perceptions of their personal development.

C represents the students who are active members of the FFA.

An interpretation of cause and effect was not possible with this co-relational design since the independent variable was not manipulated by the researcher. Tuckman (1978) warned of implying a causal relationship and indicated it was impossible to determine which variable was the cause and which variable was the effect. He suggested that any of the following conclusions were possible interpretations of co-relational research.

(1) The variable O_1 has caused O_2.

(2) The variable...O_2...has caused O_1;

(3) Some third, unmeasured variable has caused both O_1 and O_2 (Tuckman, 1978, p. 148).

For this study, the interpretive possibilities were that FFA activity participation caused leadership and personal development, leadership and personal development caused FFA activity participation, or some unmeasured variable caused both FFA activity participation and leadership and personal development. Therefore, only the relationship of the independent and dependent variables was interpreted.

Population

The population for this study consisted of senior high school students who were enrolled in Iowa vocational agriculture programs for the 1980-81 school year. Additionally, the students were active members of the Future Farmers of America (FFA) vocational youth organization.

Sample

A random sample of the population was desired to insure that any senior vocational agriculture student in Iowa had an equal and independent chance for participation in the study. Randomized selection reduces the threats of external validity and, therefore, creates a stronger case for generalization of the research results to the target population--all senior vocational agriculture students who were members of the FFA.

However, a purely random sample was not practical. If the frame had included all the seniors enrolled in vocational agriculture in Iowa, the project would have been costly and too difficult to administer. Randomly selected students may have been scattered throughout the state in numerous schools. A cluster sampling procedure was utilized, instead, to obtain a sample of students, also called experimental units, clustered within a randomly selected group of schools. In cluster sampling, a "sample unit contains groups of elements (clusters) instead of individual members...in the population" (Van Dalen, 1973, p. 323). The frame consisted of all the vocational agriculture departments within the state of Iowa. A certain number of these departments were selected, and all the senior FFA members of each department were utilized in the study. The sample error was likely to be higher in the cluster sample than in a true random sample, as each cluster (school) was composed of units (students) who may be like one another, reducing the representativeness of the sample. The actual process of cluster sampling for this study occurred as follows. First, the frame was gathered to include the 1980-81 vocational agriculture de-

partments in the state of Iowa. After each school was given a number, 75 of the 260 programs were selected using the SPSS random number procedure.

For each school, the teacher was contacted to indicate

(1) his or her ability to participate in the study and

(2) the number of students in Vocational Agriculture IV or similar classes.

Three of the schools had no seniors in the vocational agriculture program. Six of the instructors desired not to participate and 4 of the instructors never responded. Therefore, 62 of the 75 (83 percent) of the randomly selected clusters were included in the study. A total of 632 students was initially reported as enrolled in the 62 Vocational Agriculture IV or similar classes. (Appendix B.)

Instrumentation

Two instruments were utilized in this study to compare FFA activity participation and a student's personal development. Both were developed as a part of a total Iowa State University Experiment Station project. For this study, the instruments were intended for use by the sampled senior FFA students. (Appendix C.)

Personal Development Inventory

The Personal Development Inventory (PDI) was developed under the experiment station project by Mr. Greg Townsend and Dr. Richard Carter. Its 57 items were created by devising indicators of the personal development characteristics suggested in the FFA statement of aims and objectives. Using the concepts of personality self-assessment, the PDI developers

originally wrote 99 statements to represent the traits of leadership, self-confidence, occupational choice, home surroundings appreciation, agricultural orientation, citizenship, cooperation, thrift, scholarship, and health and recreation. The instrument was then field tested with a number of representative subjects. The items with low reliability coefficients were eliminated so that a set of questions for each of the ten scales had a reliability coefficient of at least .41. The revised instrument now contained 57 items--8 for leadership (r = .71), 6 for self-confidence (r = .63), 3 for occupational choice (r = .60), 3 for home surrounding appreciation (r = .41), 7 for agricultural orientation (r = .63), 7 for citizenship (r = .75), 6 for cooperation (r = .79), 3 for thrift (r = .59), 10 for scholarship (r = .78), and 4 for health and recreation (r = .56).

The PDI was designed to solicit the subjects' self-perceptions of themselves. For each of the 57 items, the selected students indicated whether they disagreed or agreed with the statements using the following scale.

1	2	3	4	5	6	7
strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree

To expedite analysis, students were instructed to mark their answers on a computer-scored answer sheet.

FFA Activity Participation Inventory

In order to ascertain a student's participation in the Future Farmers of America organization, an inventory was constructed. Using several Pro-

grams of Activity from Iowa FFA chapters, the researcher listed the activities in which a student could participate. An attempt was made to include as many local activities as possible so a majority of the students could indicate participation. Members of the Iowa State University agricultural education staff were asked to clarify and reduce the number of activities. A preliminary instrument was printed and presented again to ten members of the staff for their comments as to the clarity of directions and format of the questionnaire.

The inventory was designed so that students would mark a "yes" or "no" on the computer answer sheet to indicate participation in an FFA activity. This format was chosen over a checklist of open response to differentiate between actual missing values and items inadvertently overlooked by the student.

Field test of instruments

The two instruments were field tested in three schools not included in the random cluster sample. The schools and instructors were: Brad Taylor, Roland-Story Community High School; Jim Biagi, United Community High School; and Rick Ramaeker, Nevada Community High School. A total of 24 students participated in the field test and revealed some slight problems in the procedures of instrument administration. First, the students had a difficult time making the transition from one instrument to the next. A new instrument was consequently devised so that both questionnaires were contained in one pamphlet and items were numbered consecutively. A second observation indicated a need for an additional item request-

ing the grade level of the students in order to easily select out non-senior students. The last pertinent notation indicated students took 15 to 25 minutes to complete the two instruments which was communicated later to the instructors of the sampled schools.

Collection of Data

Each instructor of the selected 75 schools was contacted by letter requesting his or her participation and number of students in Vocational Agriculture IV or equivalent class. An addressed postcard was enclosed to be returned with that information by the teachers. The researcher used the information to mail the instrument packets in correct quantities. Teachers not responding to the initial letter were contacted with a follow-up letter. (Appendix A.)

Sixty-two instructors met the criteria, agreed to participate, and were mailed the instrument packet containing the appropriate number of instruments and answer sheets along with a letter of explanation, instructions for the students, and an addressed return envelope.
The instructors were requested to return the answer sheets by December 19, 1980. Those that had not were sent a reminder letter on January 7, 1981. January 16 was chosen as the final date of acceptance of answer sheets and by that time 54 instructors had returned their packets.

These procedures resulted in usable data from 426 students. Of the originally indicated 632 students, 62 were eliminated because they were not seniors, yielding a possible total of 570 senior vocational agriculture students. However, 8 of the instructors never returned the answer

sheets, eliminating 74 students. Another 45 answer sheets were not completed and returned. It was speculated by the researcher that the instructors overestimated their classes or that some students were absent on the day of administration of the instrument. Twenty-five of the students did not indicate their grade status and also could not be used as part of the study. Therefore, the total number of students utilized from the participating of 54 schools was 426 students.

This response of less than 100 percent may be considered a threat to internal validity. However, informal assessment indicated that this experimental mortality was a random occurrence among respondents.

Analysis of Data

The data gathered in this study were coded on standard computer answer sheets by the students according to their instructions. These answer sheets were processed at the Iowa State University Testing Center where the data were transferred to computer tape. From the tape, the data were again transferred and stored on a disk to allow easy access and manipulation by the researcher. All of the analyses were completed at the Iowa State University Computation Center. The following description of analytical procedures is an overview of statistical treatment of the data. The Statistical Package for the Social Sciences (SPSS) (Nie et al., 1975) served as the basis for selection and computation of statistical procedures.

Data modification procedures

After the data were stored on disk, procedures were employed to modify and reduce the data so that the objectives of the study could be accomplished. Basically, the data were recoded and manipulated to calculate scores of both the Personal Development Inventory and FFA Activity Participation Inventory. Following is an explanation of the data modification procedures used.

Modification of the Personal Development Inventory The Personal Development Inventory (PDI) was modified in order to obtain a score for each student's self-perception of his/her personal development. The instrument was considered in total using all 57 items and also in part to compute scores on each of the ten trait scales.

For each item, students chose a number from 1 to 7 which indicated agreement or disagreement and a weighted value for that response. To compute the total score (total PDI), the responses for each question were added and then divided by the number answered. However, in order to receive a valid total PDI, it was stipulated that the student must have answered at least 32 of the 57 items with an appropriate response from 1 to 7. Values of blank, 8, 9, or 10 (other choices on the answer sheet) were treated as missing values and not counted as answers. Therefore, the total PDI was calculated as the mean value of items for students responding to greater than 31 questions.

Similarly, the 10 scale scores were calculated as the means of the number of answered items for each scale. For their responses to be com-

puted, students had to answer the following number of questions for each scale: leadership--6 of 8, self-confidence--5 of 6, occupational choice--3 of 3, home surroundings--3 of 3, agricultural orientation--6 of 7, citizenship--6 of 7, cooperation--5 of 6, thrift--3 of 3, scholarship--8 of 10, and health and recreation--4 of 4. Using this method, the scale scores and the total PDI were comparable as mean values only for students answering a majority of the appropriate items.

Modification of the FFA Activity Participation Inventory For this instrument, students were directed to answer a "1" for yes and a "2" for no to each of the 37 FFA activity questions. As with the PDI, a score was desired in order to make comparisons between the activity levels of the students. A jury of experts was selected and asked to weight each activity on a scale from 1 to 11 according to that activity's relative importance as a measure of a student's total involvement in the organization. This jury consisted of the following people:

Wayne Natress, Agriculture Consultant
State of Iowa Department of Public Instruction
Des Moines, Iowa

Coleman Harris, National FFA Executive Secretary
National FFA Center
Alexandria, Virginia

Paul Day, State Supervisor of Agricultural Education
State Department of Education
St. Paul, Minnesota

Scott Neasham, 1980-81 State FFA President
Iowa State University
Ames, Iowa

Joe Yedlik, Iowa Vocational Agriculture Teachers Association
Executive Secretary
North Linn Community High School
Coggin, Iowa

David D. Williams, Vocational Agriculture Instructor
Waverly-Shellrock Community High School
Waverly, Iowa

Peg Armstrong, Former State and National FFA Officer
Iowa State University
Ames, Iowa

Joe D. Townsend, Instructor of Agricultural Education
Iowa State University
Ames, Iowa

Because of their varied experiences in the FFA, these eight jurors represented a cross-section of the organization. The jury reflected local, state, and national values of the FFA.

After their responses were compiled, the lowest and highest values were eliminated and the remaining six weights were averaged. The mean weighted values for the 37 activities ranged from 10.17 to 3.83 on the 11 point scale as indicated in Appendix D.

Each item answered with a "1" for yes, indicating participation, was recoded with the appropriate mean weight derived from the jury. A response of "2" for no was recoded to equal 0. To calculate a total FFA activity participation score, the newly recoded responses were summed and divided by the number answered. Values of blank and 3 through 10 were designated as missing values and not counted as a response. The resulting total FFA activity participation score was a weighted mean which could be compared from student to student.

Descriptive analyses

The Personality Development Inventory (PDI) was analyzed for consistency using SPSS subprogram RELIABILITY (Hull and Nie, 1979). Reliability refers to "how accurate, on the average, the estimate of the true score is in a population of objects to be measured" (Hull and Nie, 1979, p. 74). A measure called reliability coefficient alpha was computed for each of the 10 scales and the total PDI score. The nearer to one the alpha coefficient, the better the estimate of the true score with no error of measurement.

The subprogram RELIABILITY could be run in two ways concerning missing values. The missing values could be included or eliminated from all calculations of alpha coefficients. This researcher chose to calculate the reliability without the missing values included. The computation was completed with a case being eliminated on all analysis if a missing value for any variable was encountered.

Analysis of school data In order to determine if a total chapter's activity affected the students' FFA activity or personality development, some aspects of the sampled schools were described. Using the SPSS subprogram AGGREGATE, the students' scores were grouped according to school. School means were then calculated for the total PDI and total FFA activity participation scores. The subprogram AGGREGATE allowed a shift in the level of analysis from comparison of students to comparison of schools.

Analyses of student data SPSS subprogram FREQUENCIES was used to describe various items within the PDI and FFA Activity Participation Inventories. The mean, range, median, and frequency of response were ob-

tained for each of the 10 scale scores and the total PDI. Similarly, these descriptive statistics were generated for the total FFA activity participation scores. These total participation scores allowed discrimination of students to form 3 groups--low, medium, and high FFA participants. Also, each of the 37 FFA activities was observed for the frequency of participants and nonparticipants.

Inferential analyses

A level of significance for all inferential tests was selected to be .05. This factor indicated a .05 probability of acceptance of an incorrect conclusion that the null hypothesis was false.

Analysis of school data A chapter activity score was obtained for each sampled school from an instrument devised for a simultaneous study (Townsend, 1981). Using SPSS subprogram ONEWAY, it was determined if this score affected the schools' total PDI means or total FFA activity participation means. Duncan's Multiple Range Test was used posteriori to determine where a difference existed between the chapters and the PDI and FFA activity participation score.

Analyses of student data The students' total FFA scores were divided into 3 groups to signify low, medium, and high participation. These groups were utilized in the SPSS program ONEWAY to learn if a difference existed between groups and scores on the 10 PDI scales and the total PDI. Duncan's Multiple Range Test was used posteriori to illustrate in which groups a difference occurred.

Bivariate correlation summarized the relationship between students' FFA activity participation and their personal development. SPSS procedure

PEARSON CORR was used to correlate the total FFA activity participation scores with the total PDI and 10 scale scores. Pearson's r, computed by PEARSON CORR, indicated the strength of the linear relationship between the variables. As the value of r approached +1.0 or -1.0, it could be assumed that a strong linear relationship existed.

The statistical t-test verified the significance of the difference in the means of the PDI total and 10 scale scores in two groups of FFA students--participants and nonparticipants. The SPSS subprogram T-TEST was employed to ascertain if a difference in PDI scores was indicative of a true difference in the population of FFA participants and nonparticipants. As these two groups of FFA students were independent of each other, with populations of unequal variances, the student's t was calculated using either a pooled or separate variance.

Summary of Research Procedure

This study was conducted during the 1980-81 school year to determine the relationship between FFA activity participation and a student's personal development. An ex post facto approach and a co-relational design were employed in order to compare the PDI characteristics and FFA participation of students.

The sample for the study was selected from the population of Iowa high school vocational agriculture seniors who were FFA members. A randomized cluster sampling technique was applied to reduce the cost and difficulty of data collection. The students were members of randomly selected schools or clusters.

Two instruments were utilized in the study. First, the Personal Development Inventory, developed by earlier project members, was used to collect information concerning each student's self-perception of himself/herself. The PDI included indicators for 10 traits suggested in the FFA objectives. The second instrument was developed by the author to ascertain the activities in which students participated. These activities were weighed by a selected jury. Scores were calculated for the total PDI, each of the 10 scales, and FFA activity participation.

Following a field test, the instruments were mailed to 63 participating schools from which 426 student responses were obtained. The data were then statistically analyzed using computer facilities at the Iowa State University.

CHAPTER IV. FINDINGS AND DISCUSSION

The purpose of this study was to determine the relationship between a student's FFA activity participation and self-perceived leadership and personal development. To accomplish this objective, twelfth grade vocational agriculture students were selected by a random cluster sample. All of the students were administered two questionnaires in this ex post facto research design. Data were collected as follows:

(1) student participation in selected FFA activities and

(2) student attitude on leadership and personal development competencies.

Students' personal development scores were compared according to their participation in the FFA activities and their calculated FFA activity participation scores.

In the opening section, the descriptive analyses of the Personal Development Inventory (PDI) were discussed. The data analyses according to the objectives of the study were then presented in five sections:

(1) analyses of the FFA chapters by school,

(2) correlational analyses of variables,

(3) inferential analyses of independent variables measured on a dichotomous scale,

(4) inferential analyses of independent variables grouped by activity score, and

(5) descriptive analyses of the students.

Descriptive Analyses of the PDI

The Personal Development Inventory (PDI) was analyzed to determine its internal consistency. The reliability coefficient alpha was calculated for each of the ten scales and the total PDI instrument. As illustrated in Table 1, the reliability coefficient was greater than .50 for all but 3 of the scales. An explanation for the low reliabilities of

Table 1. Reliability coefficients of ten scales of the PDI and total PDI

Scale	Reliability[a]
	(N = 389)
Cooperation	.68
Leadership	.70
Self-confidence	.71
Citizenship	.63
Agricultural orientation	.74
Scholarship	.79
Occupational choice	.33
Thrift	.37
Health and recreation	.66
Home surroundings	.21
Total PDI	.93

[a]Missing cases excluded.

occupational choice, thrift, and home surroundings was that each scale consisted of only three questions. Although descriptive and inferential analyses were completed for these three scales, cautions were taken from making strong interpretations from the results. The seven scales and the

total PDI scores had reliability figures greater than .63 and were considered reliable. The closer to 1 for each coefficient, a lesser chance for measurement error to exist.

The reliability coefficients were computed with the missing cases excluded. In other words, the only cases included in the calculations were those where all 11 scale scores existed for each student. If any scale score was not calculated due to missing responses, the student became a missing case for all the scores. This method insured an equal number of cases included for all the reliability calculations.

The 10 scales within the PDI were constructed from the objectives of the FFA. Scores for each scale were computed as mean values according to the number of questions in the scale and the student's responses to the questions. Valid responses ranged from 1 to 7 and the scale scores were interpreted as the students

(1) strongly disagreed,

(2) disagreed,

(3) slightly disagreed,

(4) neither agreed nor disagreed,

(5) slightly agreed,

(6) agreed, and

(7) strongly agreed with the statements.

The higher scale scores indicated students perceived themselves as having higher levels of personal development competencies. As an example, a "7" for the leadership scale described students who felt they possessed com-

petent and aggressive agricultural leadership. A "1", as a leadership score, indicated students perceived they had acquired no competencies in agricultural leadership.

Table 2 summarizes the scale scores for all the respondents. The values shown in this table were not whole numbers as they were derived from student means of the assigned statements for each scale and the total PDI. All of the scale mean scores were close to 5.00 and indicated the

Table 2. Summary statistics of the total responses for the 11 PDI scales

PDI Scale	N[a]	Grand Mean	SD	Mean Scores		
				Min	Max	Median
Leadership	426	4.95	.80	2.63	7.00	5.00
Self-confidence	425	5.56	.71	3.17	7.00	5.67
Occupational choice	425	5.21	.85	1.33	7.00	5.28
Home surroundings	419	5.61	.74	2.67	7.00	5.68
Agricultural orientation	424	5.41	.76	2.43	7.00	5.56
Citizenship	426	5.48	.69	3.57	6.86	5.56
Cooperation	426	5.72	.70	2.00	7.00	5.83
Thrift	424	5.51	.82	2.67	7.00	5.60
Scholarship	426	5.61	.64	3.40	7.00	5.70
Health and recreation	421	5.69	.81	1.75	7.00	5.84
Total PDI	426	5.42	.57	3.64	6.81	5.49

[a]Adjusted for missing cases.

students slightly agreed with all the statements of the PDI. On the average, the students possessed a positive feeling toward their personal development. Close observation of Table 2 shows self-confidence, cooperation, home surroundings, thrift, scholarship, and health and recreation scales had grand means above 5.50 which showed a high level of attainment for these competencies.

Analyses of FFA Chapters by School

The random sample for this study consisted of 54 schools. Data were collected for each school from an instrument utilized in a concurrent research study (Townsend, 1981). The vocational agriculture instructor of each school indicated the activeness of the chapter on the instrument. This information was utilized in conjunction with the data collected from each student which was summarized by school.

The following null hypotheses were constructed in order to determine the affect of the chapter's activity on the students' FFA participation and personal development.

Ho_1: There is no difference between "limited", "medium", and "high" activity chapters and the students' total PDI.

Ho_2: There is no difference between "limited", "medium", and "high" activity chapters and the students' total FFA activity participation score.

Table 3 illustrates the analysis of variance results for testing hypothesis 1. The three groups of activity participation were created

Table 3. Analysis of variance of school PDI mean and chapter activity score by group

Chapter activity score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	18	5.39	.21		
Group 2 (middle 1/3)	17	5.43	.37	0.072	0.9307
Group 3 (upper 1/3)	19	5.41	.26		
Total	54	5.41	.28		

from the instructors' perceptions of the chapters. The limited activity group 1 consisted of chapters which were less than 60 percent as active as other chapters in the state of Iowa. Group 2 chapters were 61 to 75 percent as active as other chapters, and group 3 was over 75 percent as active as other chapters. The mean PDI values for the three groups varied from 5.39 to 5.43, a range of .04. This difference was not significant at the .05 level. It was concluded that chapter activeness had no significant affect on the students' personal development score and the null hypothesis Ho_1 was not rejected.

Table 4 indicates a similar relationship existed between chapter activeness and the students' FFA participation. Employing the same instructor ratings of the chapters, the 3 groups were compared utilizing the student FFA activity participation scores summarized by school. Again the group means were not significantly different ($\alpha = .05$). The mean scores extended from 113.30 to 130.22, a range of 16.92. It was noted that the

Table 4. Analysis of variance of school FFA activity participation mean and chapter activity score by group

Chapter activity score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	18	113.30	31.12		
Group 2 (middle 1/3)	17	114.64	18.49	1.953	0.1524
Group 3 (upper 1/3)	19	130.22	34.04		
Total	54	119.68	29.48		

limited activity chapters did have lower student participation means, and the means increased with the chapter activeness.

Correlational Analyses of Variables

For each of the students participating in the study, scores were computed for their personal development traits, total personal development, and FFA activity participation. The following null hypothesis was formulated:

Ho_3: There is no relationship between a student's personal development and total FFA activity participation.

Table 5 indicates that for segments of the PDI the null hypothesis was rejected while some segments of the PDI had significant relationships with the FFA activity participation score. There was no significant relationship ($\alpha = .05$) between FFA participation and the scales of self-confidence, citizenship, cooperation, thrift, and health and recreation.

Table 5. Coefficients of correlation between FFA activity participation scores and PDI scales

PDI Scale	N[a]	Coefficient	Probability
Leadership	426	0.2009	0.000
Self-confidence	425	0.0177	0.358
Occupational choice	425	0.1615	0.000
Home surroundings	419	0.0842	0.043
Agricultural orientation	424	0.1469	0.001
Citizenship	426	0.0208	0.334
Cooperation	426	0.0072	0.441
Thrift	424	0.0284	0.280
Scholarship	426	0.0931	0.027
Health and recreation	421	0.0253	0.302
Total PDI	426	0.1137	0.009

[a]Adjusted for missing cases.

The other five scales and the total PDI were weakly correlated. When the FFA participation score was higher, the leadership, occupational choice, home surroundings, agricultural orientation, scholarship, and the total PDI scores were higher. The largest coefficient, leadership (.2009) reinforced the weakness of the relationships between the PDI scales and the FFA activity score for the students.

Inferential Analyses of Variables Measured on a Dichotomous Scale

The FFA activity participation inventory consisted of 37 items to which the students responded yes or no indicating whether they participated in them. For this portion of the study, the activities were not weighted with the jury's level of importance figures. Rather, they remained dichotomous so that, for each activity, students could be considered "participants" or "nonparticipants". For each independent activity, t-tests were computed for the participants and nonparticipants on each PDI scale and the total PDI. The null hypothesis for these analyses was:

Ho_4: There is no difference in the 10 PDI scales and the total PDI and participation in each FFA activity.

Table 6 summarizes the number of FFA activities which had a significantly different ($\alpha = .05$) PDI score for the participants and nonparticipants. Many activities had differences which approached the .05 level but were not discussed; their probabilities of t-test significance ranged from $\alpha = .055$ to .981. Of the 37 FFA activities listed on the instrument, the leadership scale had the greatest number of FFA activities which showed significantly different scores for participants and nonparticipants. All of the scales showed differing scores for at least 6 of the various FFA activities.

T-values were computed as both positive and negative values. For negative values, the nonparticipants' PDI scale score was higher than the participants' scale score. This result indicated that the relationship

Table 6. T-test significant FFA activities (α = .05) for the PDI scales[a]

FFA activity	PDI scales[b]											Total scales for each activity
	LDSP	SLFCON	OCCUP	HOME	AGR	CIT	COOP	THRFT	SCHLR	HLTH	PDI	
Attend 90% meetings					+					+	+	3
Banquet	+	+	+	+	+	+	+	+	+	+	+	11
Chapter awards	+			+							+	3
Chapter exhibit		-										1
Chapter farmer	+	+	+		+		+	+	+		+	8
Chapter officer	+									+	+	3
Chapter president	+	-					-					3
Committee chairperson	+		+						+		+	4
Community service	+		+	+	+	+		+	+		+	8
Fair exhibitor-county	+				+							2
Fair exhibitor-state		-				+	-			-	-	5
Fund raising	+	+	+		+	+	+	+	+	+	+	10
Greenhand			+									1

[a](+) positive significant t-value, (-) negative significant t-value.

[b]LDSH = leadership, SLFCON = self-confidence, OCCUP = occupational choice, HOME = home surroundings, AGR = agricultural orientation, CIT = citizenship, COOP = cooperation, THRFT = thrift, SCHLR = scholarship, HLTH = health and recreation, PDI = overall personal development.

Table 6. (Continued)

FFA activity	PDI scales											Total scales for each activity
	LDSP	SLFCON	OCCUP	HOME	AGR	CIT	COOP	THRFT	SCHLR	HLTH	PDI	
Improvement project	+		+	+	+	+	+	+	+		+	9
Iowa farmer-applied												0
Judging contest					+							1
Junior officer	+											1
Leadership camp	+											1
Nat. conv. attendant	+											1
Nat. conv. participant										-	-	2
Nat. FFA week												0
Parli-pro. team												0
Prog. of Act. team												0
Proficiency applied-chpt.	+		+									2
Proficiency received-chpt.	+		+									2
Proficiency received-dist.												0
Speech-chpt.	+				+							2
Speech-dist.												0
Star chpt. farmer							-					1
Star greenhand		-				-	-	-		-	-	6
State band/ chorus		-			+					-	-	4

Table 6. (Continued)

FFA activity	PDI scales											Total scales for each activity
	LDSP	SLFCON	OCCUP	HOME	AGR	CIT	COOP	THRFT	SCHLR	HLTH	PDI	
State conv. attendant	+		+									2
State conv. participant	+		+	+							+	4
State fair worker							-	-				2
Summer trip												0
Test plot												0
Washington conf.		-		-			-					3
Total activities for each scale	18	9	11	6	10	6	10	7	6	8	14	105

between certain FFA activities and a personal development trait was inverse: nonparticipants had a higher level of personal development than participants.

One FFA activity had significantly higher t-values on all the PDI scales. Those who attended the parent-member banquet had significantly higher PDI scores than those who did not attend. Students who participated in chapter fund raising projects had significantly higher PDI scores on all scales except home surroundings. Those with improvement projects had significantly higher levels of personal development in all areas but scholarship and health and recreation. Students with the chapter farmer degrees perceived themselves at a significantly higher level of personal development than nonchapter farmers on all scales except home surroundings, citizenship, and health and recreation. The members who worked on an FFA community service project had significantly higher personal development competencies in all areas but self-confidence, citizenship, and health and recreation. Eighteen other activities yielded participants' scores significantly higher for one to seven of the PDI scales.

Table 6 also illustrates 14 FFA activities with no significantly positive t-values. Compared to the nonparticipants, the participants of these activities had similar PDI scores or significantly lower PDI scores. Star greenhands, national convention participants, Washington conference attendants, students who worked on a chapter exhibit, and state fair workers reported significantly lower mean PDI scores than nonparticipants where any significant difference occurred. Students who applied for the

Iowa farmer, coordinated an FFA week activity, participated on a parliamentary procedure or conduct of meetings team, participated on a program of activities team, received a district proficiency award, participated in a district speech contest, went on a chapter summer trip, or worked on a test plot had no significantly different PDI scores than the nonparticipant.

Table 6 summarizes the FFA activities and their relationship to the 11 PDI scales. All of the scale scores were affected by at least 6 of the 37 activities which indicated some type of relationship between the activities and student's personal development.

For these t-tests, the number and percentage of participants differed for each activity, and students may have been participants for one activity and not another (Refer to Appendix E.). Each activity was, therefore, independent of another and the PDI scale score was a mean value for each group which enabled comparison for that activity.

The 18 FFA activities which had significantly different scores between participants and nonparticipants for the leadership scale are presented in Table 7. Close observation of this table indicates the leadership mean scores for participants ranged from 4.97 to 5.22 and for the nonparticipants ranged from 4.61 to 4.92. Although these scores were close in value, the participants' scores for the activities listed in the table were significantly different at the .05 level.

The number of students who were participants was exhibited along with t-test statistics. Between 80 and 90 percent of the students helped with

Table 7. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the leadership scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Chapter farmer degree	5.00 / .77	349	4.71 / .90	71	2.78**
Fund raising	4.97 / .78	391	4.61 / .97	32	2.48**
Parent-member banquet	5.01 / .76	364	4.61 / .90	59	3.63**
Community service	5.02 / .77	325	4.73 / .85	98	3.16**
Chapter awards	5.05 / .76	244	4.82 / .82	179	2.96**
Leadership camp	5.10 / .82	126	4.88 / .78	296	2.52**
Committee chairperson	5.06 / .74	255	4.80 / .84	170	3.36**
Junior officer	5.09 / .74	146	4.88 / .81	278	2.60**
Chapter president	5.13 / .84	60	4.92 / .79	366	1.94*
Chapter officer	5.07 / .76	250	4.79 / .81	175	3.65**
State conference	5.22 / .80	103	4.86 / .77	323	4.03**

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 7. (Continued)

FFA activity	Participation group: Yes		Participation group: No		T-value
	Grand mean S.D.	N	Grand mean S.D.	N	
State conference participant	5.19 .76	110	4.87 .79	315	3.17**
National convention	5.06 .75	173	4.88 .81	252	2.34*
Chapter proficiency applicant	5.03 .77	231	4.86 .81	194	2.12*
Chapter proficiency recipient	5.04 .80	168	4.89 .78	256	2.07*
Chapter speech	5.12 .78	173	4.84 .78	250	3.62**
County fair exhibitor	5.07 .83	143	4.89 .77	281	2.21*
Improvement project	5.07 .78	226	4.81 .80	200	3.42**

chapter fund raising projects, had the chapter farmer degree, or attended the banquet. Participation in the community service projects, chapter awards, or improvement projects; as a committee chairperson, junior officer, chapter officer, or chapter proficiency applicant was indicated by 50 to 80 percent of the students. Less than one-half of the students were active in leadership camp, chapter speech contest; at the state conference, national convention; as a state conference participant, chapter proficiency recipient, chapter president, or county fair exhibitor.

Activities with significantly different self-confidence scores for participants and nonparticipants are illustrated in Table 8. For 3 of the 37 activities, participating students had significantly higher self-confidence scale scores. These activities--chapter farmer degree, fund raising project, and parent-member banquet--had between 83 and 94 percent student participation. Nonparticipants had a significantly higher self-confidence score for the activities of star greenhand, chapter president, state band/chorus, chapter exhibit, Washington conference, and state fair exhibitor. These activities had 7 to 26 percent participation by students who, on the average, had a lower perception of their self-confidence.

All of the 11 activities with significant differences between participants and nonparticipants on the occupational choice scale showed a higher value for the students who participated. Table 9 outlines these activities and shows chapter fund raising project had the widest gap between occupational choice scores of participants and nonparticipants. Students who helped with a fund raising project had a mean score .75 point

Table 8. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the self-confidence scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Chapter farmer degree	5.59 / .69	348	5.36 / .83	71	2.19*
Star greenhand	5.37 / .79	60	5.59 / .70	361	-2.21*
Fund raising project	5.59 / .69	390	5.24 / .86	32	2.71**
Parent-member banquet	5.61 / .67	363	5.27 / .91	59	2.71**
Chapter president	5.37 / .71	60	5.59 / .71	365	-2.18*
State band or chorus	5.18 / .99	28	5.58 / .69	394	-2.10*
Chapter exhibit	5.43 / .81	112	5.60 / .68	313	-2.01*
Washington conference	5.26 / .85	30	5.58 / .70	393	-2.36*
State fair exhibitor	5.35 / .82	62	5.90 / .70	363	-2.45*

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 9. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the occupational choice scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Greenhand degree	5.24 / .82	379	4.89 / 1.01	38	2.50**
Chapter farmer degree	5.28 / .79	349	4.88 / .94	70	3.32**
Fund raising project	5.27 / .81	390	4.52 / .93	32	5.00**
Parent-member banquet	5.29 / .79	363	4.78 / .95	59	3.88**
Community service project	5.28 / .80	324	4.99 / .91	98	3.08**
Committee chairperson	5.28 / .81	254	5.11 / .85	170	2.06*
Attended state conference	5.35 / .76	103	5.16 / .86	322	2.02*
State conference participant	5.40 / .76	110	5.15 / .84	314	2.71**
Chapter proficiency applicant	5.30 / .78	231	5.12 / .87	193	2.26*
Chapter proficiency recipient	5.32 / .78	168	5.15 / .85	255	2.11*
Improvement project	5.32 / .85	226	5.09 / .81	199	2.84**

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

higher than students who were not active on the project. Students who attended the parent-member banquet showed the next highest margin of .51 over those who did not attend. A slight margin from .17 to .19 was indicated for those students who were committee chairpersons, attended the state conference, and applied for and received the chapter proficiency awards. Although the differences were significant according to the statistical treatment, these scores occurred near 5.0 indicating all of the students were slightly in agreement with the occupational choice statements regardless of their participation status.

For the PDI scale that measured the personal development competencies relating to home surroundings, five of the FFA activities in which students participated showed significantly higher scores. Students who attended the banquet, helped with community service, or chapter awards, or participated in a state conference or improvement project perceived a higher rating of their competencies concerning their home surroundings. All of the mean scores, however, for both groups ranged from 5.35 to 5.78 with the largest margin of .33 point which indicated all students felt slightly agreeable toward the home surroundings questions. A negative relationship occurred for participants in the Washington conference; they had a home surrounding score .29 less than the nonparticipants.

Agricultural orientation scale mean scores were significantly higher for participants of nine FFA activities and lower for one activity. Students attending the banquet or participating in fund raising perceived their agricultural orientation .52 to .56 point higher than the nonpartici-

Table 10. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the home surroundings scale

FFA activity	Participation group: Yes — Grand mean / S.D.	N	Participation group: No — Grand mean / S.D.	N	T-value[a]
Parent-member banquet	5.66 / .69	359	5.35 / .96	57	2.41*
Community service project	5.70 / .69	318	5.37 / .86	98	3.43**
Chapter awards program	5.69 / .70	240	5.53 / .79	176	2.17*
State conference participant	5.78 / .67	106	5.56 / .76	312	2.68**
Washington conference	5.35 / .73	27	5.64 / .74	390	-1.96*
Improvement project	5.72 / .68	221	5.50 / .79	198	3.05**

[a]Value significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 11. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the agricultural orientation scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Chapter farmer degree	5.45 / .73	347	5.19 / .85	71	2.65**
Attended 90% meetings	5.48 / .74	288	5.24 / .79	134	2.95**
Fund raising	5.44 / .74	390	4.88 / .88	31	4.01**
Parent-member banquet	5.48 / .72	363	4.96 / .84	58	4.95**
Community service project	5.49 / .73	323	5.14 / .82	98	4.05**
State band or chorus	5.07 / .82	28	5.43 / .75	393	-2.44*
Chapter speech contest	5.50 / .74	171	5.35 / .77	250	1.98*
State judging contest	5.53 / .74	166	5.32 / .77	258	2.68**
County fair exhibitor	5.51 / .77	141	5.35 / .75	281	2.07*
Improvement project	5.53 / .72	225	5.26 / .79	199	3.68**

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

pating students. Chapter farmers and students who attended 90 percent of the meetings, or worked on community service and improvement projects, or participated in state judging perceived their agricultural orientation .24 to .36 point higher than nonparticipants. Chapter speech competitors and county fair exhibitors were .15 to .16 higher than nonparticipants on the agricultural orientation scale. The students who were members of the state band or chorus perceived themselves .36 point lower than students who did not participate.

As with the previous scales, the agricultural orientation means showed significant differences between participants and nonparticipants and occurred near 5.00, ranging from 4.88 to 5.53. These scores indicated all students generally agreed with the PDI statements concerning agricultural orientation and their personal development in that area was positive.

Parent-member banquet, fund raising, community service, and improvement project participants had significantly higher scores for the citizenship scale. Again the mean scores clustered near 5.00--from 5.08 to 5.56. The students who worked on the fund raising project were .43 point higher for citizenship than the nonparticipants. The remaining three activities had scores .18 to .25 point higher for participants than nonparticipants. Star greenhands and state fair exhibitors were lower in their perceptions of citizenship by .29 and .25 point, respectively.

Table 13 illustrates the 10 FFA activities which had significantly different mean scores on the cooperation scale between participants and nonparticipants. Four of the activities had higher means for participants

Table 12. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the citizenship scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Star greenhand	5.23 / .80	60	5.52 / .66	362	-2.64**
Fund raising project	5.51 / .67	391	5.08 / .84	32	2.78**
Parent-member banquet	5.51 / .66	364	5.27 / .78	59	2.53**
Community service project	5.54 / .67	325	5.29 / .72	98	3.10**
State fair exhibitor	5.26 / .81	62	5.51 / .66	364	-2.26*
Improvement project	5.56 / .64	226	5.38 / .73	200	2.59**

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 13. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the cooperation scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Chapter farmer degree	5.78 / .63	349	5.51 / .85	71	2.48*
Star greenhand	5.42 / 1.01	60	5.77 / .62	362	-2.65**
Star chapter farmer	5.44 / .81	38	5.76 / .68	385	-2.70**
Fund raising project	5.76 / .65	391	5.33 / .99	32	2.42*
Parent-member banquet	5.78 / .64	364	5.46 / .81	59	2.84**
Chapter president	5.49 / .96	60	5.76 / .64	366	-2.07*
Washington conference	5.33 / .99	30	5.76 / .64	394	-2.34*
State fair exhibitor	5.43 / .90	62	5.77 / .65	364	-2.88**
State fair worker	5.50 / .91	51	5.76 / .63	372	-2.01*
Improvement project	5.79 / .66	226	5.64 / .74	200	2.22*

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

and six had higher means for nonparticipants. Fund raising project had the greatest margin of .43 between participants and nonparticipants. Those students in attendance at the banquet, holding a chapter farmer degree, and working on an improvement project had higher scores by .32, .27, and .15 point, respectively. Nonparticipants had significantly higher cooperation scores with margins of .27 and .43 point for the activities of star greenhand, star chapter farmer, chapter president, state fair exhibitor, and state fair worker. Students who were active in these activities had a slightly lower perception of their cooperation competencies.

Mean PDI scores for the thrift scale were significantly different for seven of the 37 FFA activities. Table 14 presents the five activities with significantly higher scores for participants and two activities with significantly higher scores for the nonparticipants. As with several of the previous scales, chapter farmer, fund raising project, banquet, community service project, and improvement project were activities for which participants had higher perceptions of their personal development. Concerning the activities with significant differences on the thrift scale, the participants had a mean score from .19 to .56 point higher than nonparticipants. Star greenhands and students who worked at the state fair had perceptions of thrift .22 and .31 point lower than nonparticipants. It was noted that this scale had a reliability of less than .50 so the results were treated with caution. Table 15 indicates all six of the significantly different scores were higher for participants than nonparticipants of the FFA activities for the scholarship scale. Over 50 percent of the students

Table 14. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the thrift scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
Chapter farmer degree	5.55 / .81	348	5.31 / .88	70	2.23*
Star greenhand	5.32 / .92	59	5.54 / .81	361	-1.96*
Fund raising project	5.55 / .81	389	4.99 / .81	32	3.75**
Parent-member banquet	5.55 / .83	362	5.28 / .78	59	2.37*
Community service project	5.55 / .80	323	5.37 / .90	98	1.97*
Worked at state fair	5.25 / .99	51	5.56 / .78	370	-2.10*
Improvement project	5.60 / .80	225	5.41 / .84	199	2.36*

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 15. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the scholarship scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean S.D.	N	Grand mean S.D.	N	
Chapter farmer degree	5.64 .62	349	5.42 .79	71	2.13*
Fund raising project	5.63 .62	391	5.18 .92	32	2.76**
Parent-member banquet	5.65 .59	364	5.30 .90	59	2.87**
Community service project	5.66 .60	325	5.42 .79	98	2.74**
Committee chairperson	5.65 .61	255	5.53 .72	170	1.94*
Improvement project	5.67 .62	226	5.52 .69	200	2.51*

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

participated in the activities significant for the scholarship scale and their scores were from .12 to .45 point higher than the nonparticipants.

The significant t-tests for the health and recreation scale are presented in Table 16. State band/chorus, star greenhand, national convention participation, and state fair exhibitor were activities which yielded significantly lower PDI scores for participants. Less than 50 percent of the students took part in these activities and the scores remained between 5.20 and 5.75. Scores were higher for participants than nonparticipants who attended 90 percent of the meetings or the banquet; worked on a fund raising project; or were chapter officers. The scores were higher by .23 to .44.

FFA activities with significantly different scores for the total PDI scale are illustrated in Table 17. This scale was similar to the trait scales in that all scores for participants and nonparticipants clustered around 5.00 and ranged from 5.01 to 5.53. All students slightly agreed with the competencies contained in the PDI. Weak differences occurred in 14 activities. Four activities had lower scores for participants and these activities showed up in various subscales of the PDI. Star greenhand, state band/chorus members, national convention participants, and state fair exhibitors had lower perceptions of their total personal development than those who did not participate in the activities. Less than 50 percent of the students were active in those four activities. The remaining 10 activities listed in Table 17 had higher scores for participants than nonparticipants with the margin ranging from .11 to .45.

Table 16. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the health and recreation scale

FFA activity	Participation group: Yes		Participation group: No		T-value[a]
	Grand mean S.D.	N	Grand mean S.D.	N	
Star greenhand	5.32 .98	57	5.75 .84	361	-3.53**
Attended 90% meetings	5.76 .81	287	5.53 .96	133	2.47**
Fund raising project	5.72 .85	386	5.28 1.00	32	2.78**
Parent-member banquet	5.74 .84	360	5.42 .96	59	2.71**
Chapter officer	5.79 .79	245	5.56 .95	175	2.71**
State band or chorus	5.20 1.10	26	5.72 .84	392	-2.38*
National convention participant	5.26 .97	19	5.71 .82	402	-2.17*
State fair exhibitor	5.47 .99	61	5.72 .85	360	-2.13*

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 17. Grand means, standard deviations, and t-test for independent FFA activities with significant differences between participation groups for the total PDI scale

FFA activity	Participation group: Yes — Grand mean / S.D.	N	Participation group: No — Grand mean / S.D.	N	T-value[a]
Chapter farmer degree	5.46 / .53	349	5.23 / .67	71	2.79**
Star greenhand	5.26 / .67	60	5.45 / .55	362	-2.00*
Attended 90% meetings	5.46 / .54	290	5.33 / .61	134	2.18*
Fund raising project	5.46 / .54	391	5.01 / .73	32	3.37**
Parent-member banquet	5.48 / .53	364	5.11 / .68	59	3.93**
Community service project	5.48 / .54	325	5.24 / .62	98	3.70**
Chapter awards	5.47 / .53	244	5.36 / .60	179	2.03*
Committee chairperson	5.48 / .52	255	5.34 / .61	170	2.36*
Chapter officer	5.47 / .52	250	5.36 / .58	175	2.07*
State conference participant	5.53 / .58	110	5.39 / .55	315	2.18*

[a]Values significant at .05 or below.

*Significant at .05.

**Significant at .01.

Table 17. (Continued)

FFA activity	Participation Group: Yes		Participation Group: No		T-value[a]
	Grand mean / S.D.	N	Grand mean / S.D.	N	
State band or chorus	5.18 / .67	28	5.44 / .55	395	-2.44*
National convention participant	5.17 / .67	20	5.43 / .56	406	-2.01*
State fair exhibitor	5.27 / .69	62	5.45 / .54	364	-1.97*
Improvement project	5.51 / .54	226	5.32 / .58	200	3.48**

Summary of Inferential Analyses of Variables Measured on a Dichotomous Scale

The null hypothesis Ho_4 was tested by computing the t-value for each PDI scale score according to participation and nonparticipation in the 37 FFA activities. At least six activities had significant differences (α = .05) for each scale. A total of 105 significant relationships were indicated with all showing higher mean PDI scores for participants except 24 relationships with lower mean PDI scores. Eight of the 37 FFA activities did not have significant differences between participants and nonparticipants for any of the PDI scales. These activities were: Iowa farmer degree applicant, district proficiency recipient, district speech contestant, national FFA week coordinator, test plot participant, summer trip participant, parliamentary procedure or conduct of meetings team member, and program of activities team member. Attendance at the parent-member banquet yielded higher scores for participants on all 11 scales. Fund raising participants had significantly higher scores for 10 scales; improvement project, nine scales; chapter farmer and community service, eight scales. The null hypothesis, therefore, was rejected when an activity had a significantly different scale score for participants and nonparticipants.

Inferential Analyses of Variables Grouped by Activity Score

FFA activity participation scores were computed by weighting each activity according to a jury-determined value and summing the weighted values for the activities in which a student participated. The student

who participated in every listed activity had a total possible score of 287.69; the student who did not participate in any activities had a score of 0. The jury weights gave values to each activity so that a score would reflect the "importance" of the activities as an indication of the student's participation in the FFA.

It was hypothesized that higher FFA activity participation scores would correspond to higher PDI scale scores. The null hypothesis to be tested was:

Ho_5: There is no difference in the 10 PDI scale scores and the total PDI score and three levels of activity participation (limited, medium, and high).

Tables 18 to 28 present the results of the analysis of variances calculated for the 11 PDI scores. The FFA activity participation scores were equally distributed into 3 groups: 0 to 90.01 was group 1, limited; 90.02 to 141.68 was group 2, medium; 141.69 to 287.69 was group 3, high. Each group had a potential of 142 members as the total sample was 426 students. Throughout the tables a group did not contain 142 students if a scale score was not computed for a particular student and the student became a missing case.

For all 11 PDI scale scores, the grand means for all groups ranged from 4.77 to 5.76. This spread of approximately one point indicated that all groups of students slightly agreed with the PDI competencies. Although the mean differences were not all significant, it was observed that five of the scales had the lowest means for group 1, and the highest means

Table 18. Analysis of variance of leadership score and students' FFA activity score by group

FFA Score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	4.77	.80		
Group 2 (middle 1/3)	142	4.94	.77	7.687	0.0005
Group 3 (upper 1/3)	142	5.14	.79		
Total	426	4.95	.80		

Table 19. Analysis of variance of self-confidence score and students' FFA activity score by group

FFA Score	N[a]	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.56	.73		
Group 2 (middle 1/3)	142	5.58	.71	0.030	0.9704
Group 3 (upper 1/3)	141	5.55	.70		
Total	425	5.56	.71		

[a]Adjusted for missing cases.

Table 20. Analysis of variance of occupational choice and students' FFA activity score by group

FFA Score	N[a]	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	141	5.06	.90		
Group 2 (middle 1/3)	142	5.24	.71	3.610	0.0279
Group 3 (upper 1/3)	142	5.32	.87		
Total	425	5.21	.83		

[a]Adjusted for missing cases.

Table 21. Analysis of variance of home surrounding score and students' FFA activity score by group

FFA Score	N[a]	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.30	.79		
Group 2 (middle 1/3)	142	5.45	.68	2.087	0.1254
Group 3 (upper 1/3)	140	5.47	.80		
Total		5.41	.76		

[a]Adjusted for missing cases.

Table 22. Analysis of variance of agricultural orientation score and students' FFA activity score by group

FFA Score	N[a]	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.30	.79		
Group 2 (middle 1/3)	142	5.45	.68	2.087	0.1254
Group 3 (upper 1/3)	140	5.47	.80		
Total		5.41	.76		

[a]Adjusted for missing cases.

Table 23. Analysis of variance of citizenship score and students' FFA activity score by group

FFA Score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.47	.70		
Group 2 (middle 1/3)	142	5.48	.64	0.037	0.9639
Group 3 (upper 1/3)	142	5.47	.73		
Total	426	5.48	.69		

Table 24. Analysis of variance of cooperation score and students' FFA activity score by group

FFA Score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.70	.72		
Group 2 (middle 1/3)	142	5.76	.63	0.423	0.6553
Group 3 (upper 1/3)	142	5.70	.74		
Total	426	5.72	.70		

Table 25. Analysis of variance of thrift score and students' FFA activity score by group

FFA Score	N[a]	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	141	5.48	.79		
Group 2 (middle 1/3)	141	5.53	.79	0.162	0.8504
Group 3 (upper 1/3)	142	5.52	.89		
Total	424	5.51	.82		

[a]Adjusted for missing cases.

Table 26. Analysis of variance of scholarship score and students' FFA activity score by group

FFA Score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.53	.71		
Group 2 (middle 1/3)	142	5.65	.57	1.377	0.2535
Group 3 (upper 1/3)	142	5.63	.64		
Total	426	5.61	.64		

Table 27. Analysis of variance of health and recreation score and students' FFA activity score by group

FFA Score	N[a]	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	141	5.67	.88		
Group 2 (middle 1/3)	141	5.73	.87	0.307	0.7362
Group 3 (upper 1/3)	139	5.66	.87		
Total	421	5.69	.87		

[a]Adjusted for missing cases.

Table 28. Analysis of variance of total PDI score and students' FFA activity score by group

FFA Score	N	Mean	SD	F-value	F-prob
Group 1 (lower 1/3)	142	5.35	.59		
Group 2 (middle 1/3)	142	5.45	.50	1.570	0.2092
Group 3 (upper 1/3)	142	5.46	.60		
Total	426	5.42	.57		

for group 3. Leadership, occupational choice, agricultural orientation, home surroundings, and the total PDI scales showed higher means for the high activity participation group. The remaining six scales (self-confidence, thrift, cooperation, citizenship, health and recreation, and scholarship) indicated the medium group, 2, had the highest means.

Two of the 11 scales showed significant differences in the means of the FFA activity participation score groups. The leadership scale, significant at .05 for the analysis of variance statistical test, had a reliability coefficient of .70. The means for the three groups ranged from 4.77 to 5.14 points. The Duncan Multiple Range test indicated that group 1 was significantly different from groups 2 and 3. The limited FFA participation groups had a lower perception of their leadership competencies than the medium and high participation groups.

The occupational choice scale showed a difference in means of 5.06 to 5.32. A posteriori test, Duncan's Multiple Range, indicated that the mean

of group 1 was different ($\alpha = .05$) from the mean of group 3. The limited participants had significantly lower scores than the high participants and had a lower perception of their occupational choice competencies. Since the occupational choice scale had a reliability coefficient of .33, the results of this significant analysis of variance were considered weak.

The null hypothesis Ho_5 was rejected for the PDI scales leadership and occupational choice. It was not rejected for the remaining nine scales.

Descriptive Analyses of the Students

One objective of this research study asked, how is the limited, medium, and high FFA participant profiled according to the ten scale scores and overall personal development? To answer this question, descriptive analyses were used in creating Figures 1, 2, and 3. The figures illustrate the minimum and maximum mean values for each level of students' FFA activity participation scores on each of the PDI scales and the total PDI.

The limited student profile shows cooperation to have the lowest mean of 2.00. Leadership, occupational choice, home surroundings, agricultural orientation, and health and recreation had the lowest mean values below 3.00. The lowest means for self-confidence, citizenship, thrift, scholarship, and the total PDI were found between 3.00 and 3.75. All but 3 of the highest means for the limited participant reached 7.00. Leadership, citizenship, and the total PDI high means were 6.87, 6.86, and 6.68, respectively. The medium level FFA participant had a lower mean than the limited participant on the scales for leadership, self-confidence, health and recreation, and the total PDI. The low end of this profile was

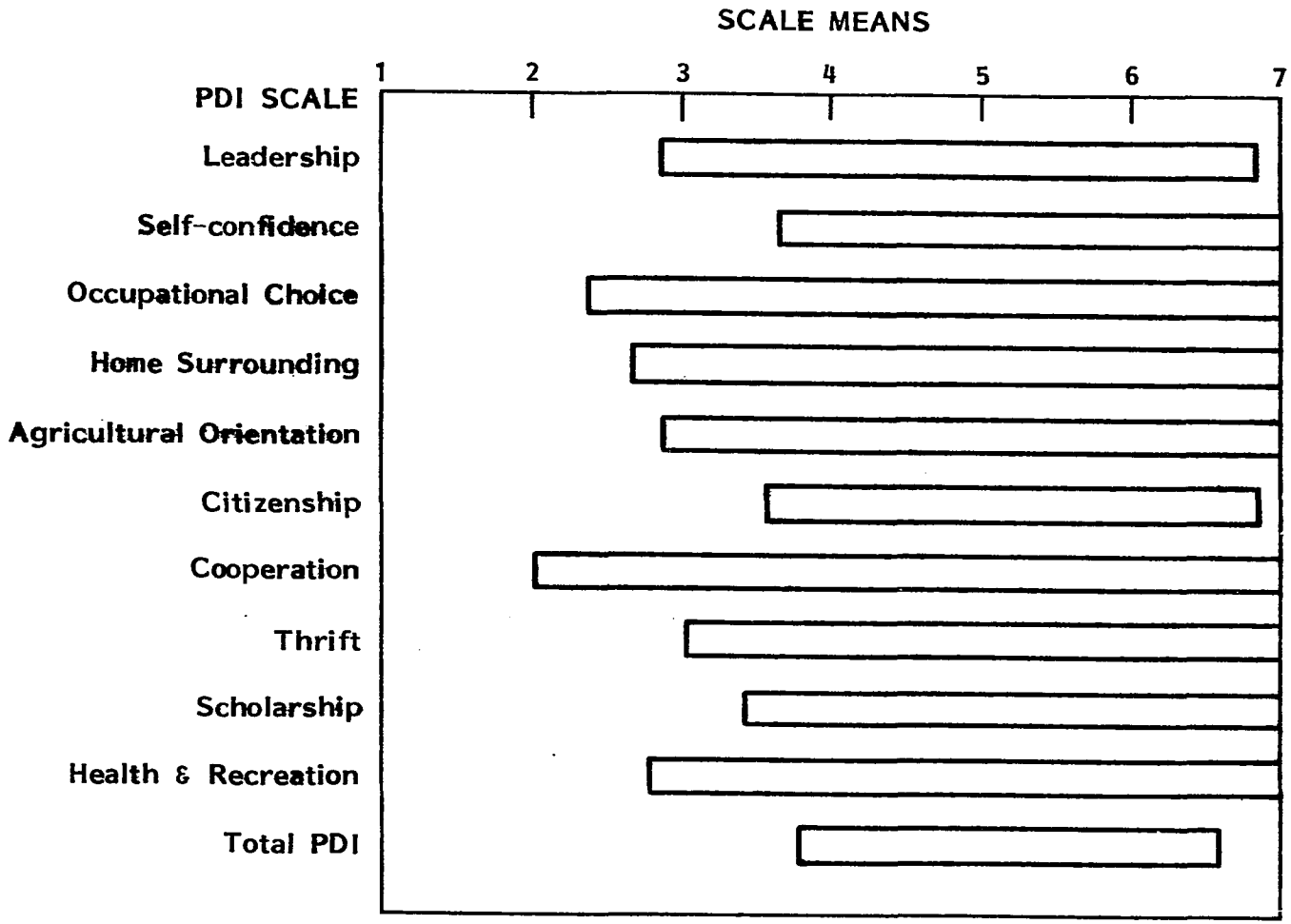


Figure 1. Profile of Limited FFA Participant

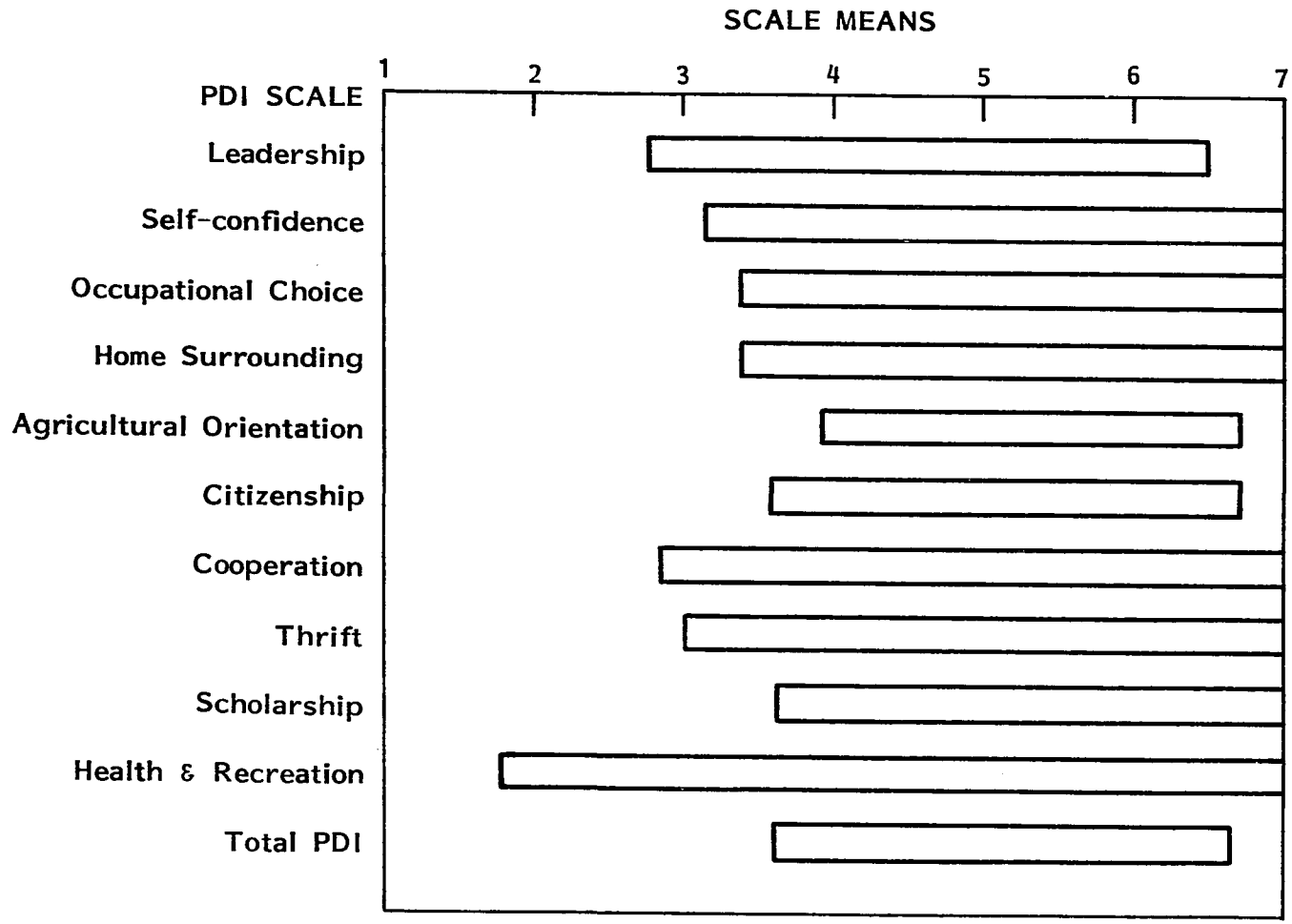


Figure 2. Profile of medium level FFA participant

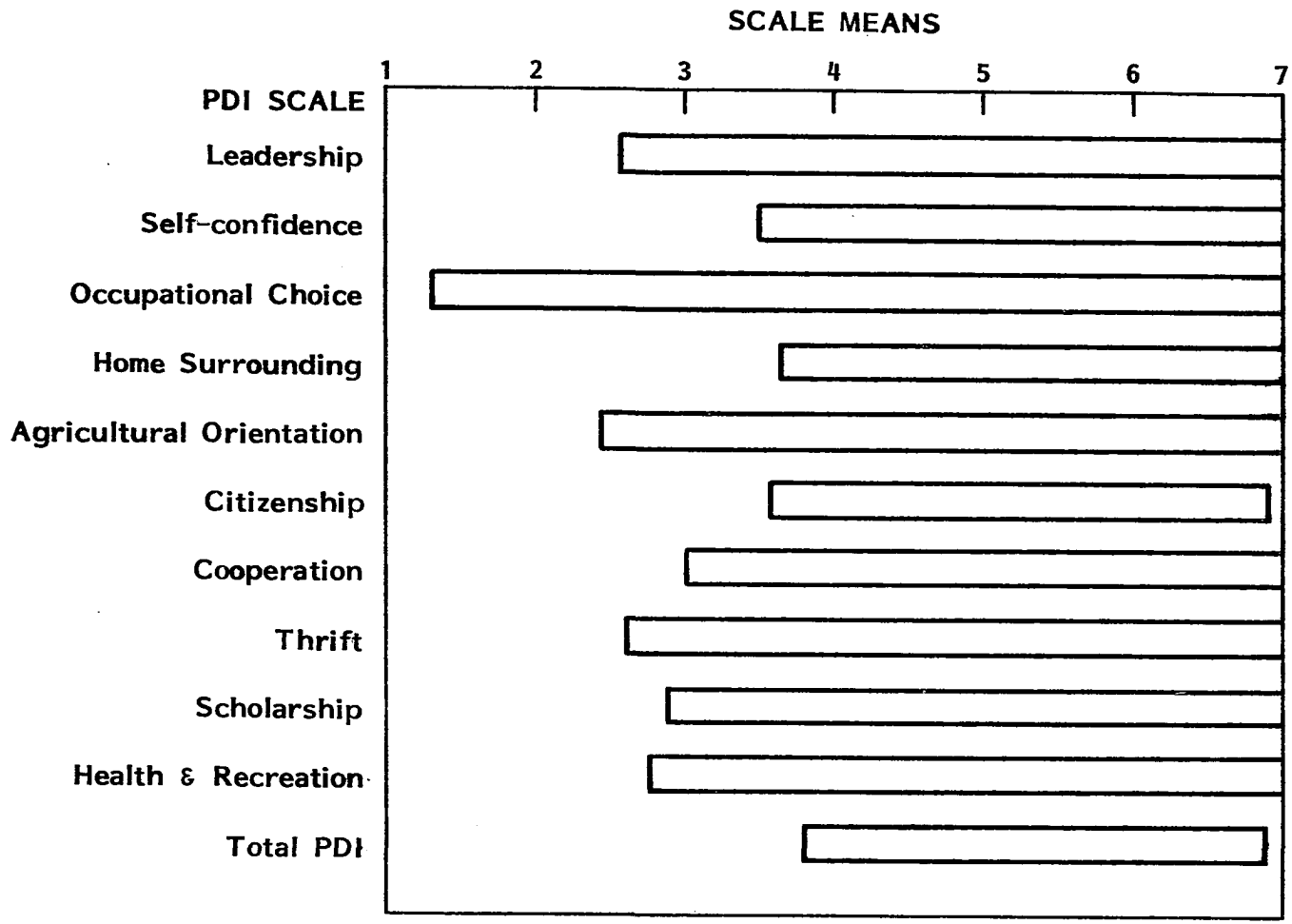


Figure 3. Profile of high level FFA participant.

higher, however, for the other 7 scales. The top end of the profile was less for the medium participants than the limited participants of the scales for leadership, agricultural orientation, and citizenship. The medium student profile ranged, on the lower means, from 1.75 to 3.83 and, on the upper means, from 6.50 to 7.00. The high level FFA student showed a wide range of lower scores. The means ranged from 1.33 to 3.79. The low means for the high participant were lesser values than for the limited participant on the scales of leadership, self-confidence, occupational choice, home surroundings, cooperation, and thrift. The profile showed the high means all at 7.00 except citizenship (6.86) and total PDI (6.81).

The three participation profiles graphically illustrate the range of personal development competencies perceived by the students. A wider variation of means indicated a wide variety of students in the participation group. The limited participants had the longest range of PDI means for home surroundings, citizenship, cooperation, and scholarship. The medium group had the widest range of scores for self-confidence, health and recreation, and the total PDI. The high participation group had wider scores for leadership, occupational choice, agricultural orientation, citizenship, and thrift. The high participation group had the most narrow range for home surroundings, cooperation, scholarship, and health and recreation.

Summary of Data Analyses

Reliability coefficients were computed in order to ascertain the consistency of the PDI. All scales, and the total PDI had coefficients above

.50 except thrift, occupational choice, and home surroundings. While inferential statistics were compiled for all scales, the results for the three below reliability .50 were treated with caution.

Chapters were compared according to an activity score to determine if chapter activeness affected students' PDI and FFA activity participation scores. The null hypothesis was not rejected; chapter activeness had no affect on the students' scores.

Correlational analyses revealed some relationships between personal development and total FFA activity participation. A positive correlation existed for the FFA activity score and leadership, occupational choice, home surroundings, agricultural orientation, scholarship, and the total PDI.

The 37 FFA activities were considered as to their relationship to the 10 PDI scales and total PDI. For each activity, students were grouped as participants or nonparticipants. Significant differences between participants and nonparticipants were found for all but eight of the activities. Each of the scales had a relationship with at least six activities.

Three levels of student participation scores (limited, medium, and high) were compared for each PDI scale and the total PDI. All groups had no significant differences in the PDI scores except for the scales of occupational choice and leadership. For these scales, the limited participation group perceived themselves lower in the respective personal development competencies than did the high participation group.

Profiles were produced for each type of participant. The three profiles illustrated the range of means for each PDI scale.

CHAPTER V. CONCLUSIONS, RECOMMENDATIONS, AND SUMMARY

Conclusions

This study was undertaken to investigate activities of the FFA and their relationship to a student's personal development. Ten scales were developed from the objectives of the organization to measure leadership, self-confidence, occupational choice, home surrounding appreciation, agricultural orientation, citizenship, cooperation, thrift, scholarship, and health and recreation. The combination of all the subscales assessed overall personal development. Data analyses of the PDI scales and student participation in 37 selected FFA activities revealed conclusions which were generalized to all Iowa FFA students.

The activeness of the FFA chapter had no affect on students' personal development or individual FFA activity participation. Although it seemed more active chapters offered more opportunity for participation, this was not the case. Students from chapters that were rated from 20 to 90 percent as active as all chapters in the state had the same level of participation. The personal development of students also did not differ according to a chapter's activity. These findings inferred that students provided their own opportunities for participation regardless of their chapter's plans.

The FFA activity participation scores were computed with weighted values supplied by a jury. Certain activities were assigned higher scores if they were considered more important. The total scores represented not only the quantity, but the quality of activity participation. The activity scores positively correlated with the scales measuring leadership,

occupational choice, home surroundings, agricultural orientation, scholarship, and overall personal development. Higher FFA scores were attained by students with the higher mentioned scale scores. It was not concluded that the FFA activities caused higher personal development in these areas, but a definite relationship existed between the scales and activities. Another observation indicated that high FFA scores were generated by both students with many low-rated activities or a few high-rated activities. Therefore, it did not matter whether students participated in a few high-value or many low-value activities for their previously mentioned scores to rise.

When the FFA activities were qualified with weighted values, five of the personal development traits were not affected by student participation. Self-confidence, citizenship, cooperation, thrift, and health and recreation scales did not rise or fall with the quantity and quality of student participation. Although development of these personal competencies were expressed as objectives of the FFA, students' total participation had no relationship to them. It was concluded that these traits were affected by numerous factors in the student's life and FFA participation was one component of total development.

The third objective of this study was concerned with participation in certain FFA activities and students' personal development. Participants and nonparticipants of the 37 activities were compared according to their PDI scale scores. It was discovered that all 10 scales and overall personal development were affected by a variety of the activities.

The leadership score was significantly higher for participants of more activities than any other scale. Participants of 18 activities had a higher perception of their leadership competencies than nonparticipants. Many of these activities occurred at the local level and offered individual participation for all students. These activities were improvement project, chapter farmer, committee chairperson, chapter president, chapter officer, proficiency award application, chapter proficiency received, chapter speech contest, county fair exhibitor, junior officer. The activities did not have complicated application processes so many students were able to participate. It was not inferred that participation caused higher leadership development. However, it was concluded that since these activities were based on the FFA leadership objective, they enhanced and strengthened the leadership compentencies of the students.

Several of the activities for which participants had higher leadership scores occurred as chapter projects or above the chapter level. Students who attended or participated in the state conference; attended the banquet or national convention; or worked on fund raising, community service, or chapter awards perceived their leadership competencies higher than nonparticipants. As with individually oriented activities, it was easy for members to become active in these activities. Participants of the state and national conferences were, perhaps, chosen by a selection process but those who attended had a higher perception of their leadership. The overall theme of these events supported leadership development of the students who were able to attend.

The self-confidence scale score was significantly higher between participants and nonparticipants for only three FFA activities. Students who were chapter farmers, attended the banquet, or participated in fund raising projects perceived their self-confidence higher than nonparticipants. Possibly chapter farmers had higher self-confidence scores than non-chapter farmers due to the requirements for attainment of the degree. Those that attended the parent-member banquet had a high enough perception of their FFA involvement to share it with their parents. Fund raisers dealt with the public so their self-confidence was an important trait. Although developing self-confidence was an objective of the FFA, it may have been difficult to stress the development of that trait through individual activities.

The self-confidence competencies were significantly lower for state fair exhibitors, state band/chorus members, Washington conference participants, and students who worked on a chapter exhibit than for students not involved in these activities. An examination of the activities showed they occurred above chapter level and the participants may have lowered their self-confidence perceptions as they were introduced to new and broad groups of people. Chapter presidents had lower self-confidence scores because with their responsibilities of the office, they may have felt insecure with some of their duties. From the results of these analyses, it was concluded that star greenhands had a lower self-confidence score because they were high achievers with great expectations of themselves.

Since a goal of the FFA was to aid career development, it was not surprising that participants of 11 activities had a significantly higher per-

ception of their occupational choice competencies than nonparticipants. Specifically, agricultural exploration and skill development was contained in improvement projects and proficiency awards. It was not concluded that these projects helped develop the occupational choices of the students, but that they aided the crystallization of students' vocational choice.

Students who participated in improvement projects, community service projects, and chapter awards (BOAC, Safety, etc.) had significantly higher home surrounding scores than nonparticipants. Since each of these activities stressed values which emphasized the worth of the home, it was concluded that they accomplished the home surrounding objective of the FFA. It was also not surprising that participants of the parent-member banquet had higher home surrounding scores as the event was sponsored for the total family and reinforced the nuclear family concept.

The FFA activities in which participants rather than nonparticipants had significantly higher agricultural orientation competencies revolved around agricultural concepts. Agricultural skills and knowledge were encountered in improvement projects, chapter farmer requirements, chapter speech contest, county fair exhibitor, community service project, attendance at 90 percent of the meetings, and judging contests. Because students active in these projects had high perceptions of their agricultural orientation, it was concluded that the activities fulfilled the related FFA objective.

Higher perceptions of citizenship were held by students who were active in people-oriented projects. Students dealt with their parents to

develop and carry out an improvement project, and collaborated with many people as a state fair exhibitor, in a fund raising or community service project, or at the banquet. Since the competencies of citizenship were a component of all these experiences with people, the participants needed solid citizenship traits in order to gain positive results.

Elements of cooperation were contained in improvement projects, chapter farmer, banquet, and fund raising projects and participating students had higher cooperative traits perceptions than nonparticipating students. To maintain an improvement project, the student cooperated with parents and organizations which supplied materials. To become a chapter farmer, students cooperated with other chapter members and the advisor(s) to fulfill the application requirements. At the banquet, cooperation was needed with parents, teachers, other students, and guests so that a successful banquet transpired. In fund raising, students cooperated with the sales agency, students, teacher, and the general public in the various phases of the project. The cooperation aim of the FFA was stressed in these activities and strengthened those competencies of participating students.

Cooperation competencies were perceived significantly lower by participants than nonparticipants of several diverse activities. Star greenhands and chapter farmers, chapter presidents, state fair exhibitors and workers, and participants at the Washington conference experienced many unfamiliar contacts in the activities. It was concluded that these new experiences enlightened the members to the broadness of life and, therefore, suggested they needed to develop additional cooperation competencies.

Students who participated in improvement projects, as chapter farmers, or in fund raising projects perceived themselves as more thrifty than students who did not participate in the activities. As monetary practices were associated with these activities, it was concluded that they fulfilled the thrift objective of the FFA.

Star greenhands and state fair workers did not have as high a perception of their thrift competencies as nonparticipants. No direct relationship for this occurrence was concluded. However, it may be that these students, as high achievers, expected more of themselves and were more critical of their personal development competencies.

Participants of improvement, fund raising, or community service projects; as a chapter farmer or committee chairperson; or at the banquet, had significantly higher scholarship scale scores than nonparticipants. It was concluded that scholarship was either enhanced or sustained by these activities. Although it was not determined if scholastically higher students were attracted to these activities, it was inferred that the related FFA objective was accomplished.

The final personal development competency investigated was health and recreation. It was discovered that participants of some activities had higher scale scores and some had lower scores than nonparticipants. Students that attended 90 percent of the meetings or the banquet, or were chapter officers, or participated in fund raising, had higher perceptions of their health and recreation competencies. Star greenhands, state fair exhibitors, state band/chorus members, and national convention partici-

pants perceived their health and recreation traits lower than nonparticipants. It was concluded that local and group oriented activities, rather than state or national activities, enhanced the development of health and recreation competencies.

Although various activities had significant relationships with the PDI scales, 10 had a significant relationship with students' overall personal development. Participants in the following activities had a significantly higher perception of their overall personal development: improvement project, chapter farmer, committee chairperson, state conference participant, chapter officer, banquet, fund raising, community service, chapter awards, and attendance at 90 percent of the meetings. Since all but one of these activities (state conference participant) were locally oriented, it was concluded that the students overall personal development was enriched by participation in local projects.

A reinforcement of this conclusion arose from the participants of activities above the chapter level who perceived their personal development lower than nonparticipants. Their activities were state fair exhibitor, state band/chorus, national convention participant.

When the FFA activities were weighted as to their quality, students with the upper two-thirds of participation scores perceived their leadership competencies significantly higher than the lower one-third group. Similarly, students in the upper one-third participation group perceived their occupational choice competencies significantly higher than the lower one-third group. These results supported the goals of the FFA aimed at leadership development and career exploration.

Although eight of the PDI scales and overall personal development did not significantly differ between participation groups of students, it was shown in the previous conclusions that these competencies were enhanced through participation in selected activities. Since participation groups were formed from a weighted score, scores did not segregate activities upon the basis of quality and students with high scores may have participated in many low-rated activities or few high-rated activities.

A major inference from the results of this study involved the overall emphasis of the FFA. Students with participation in local activities seemed to attain higher personal development. In fact, state and national participants had lower perceptions of certain PDI competencies. The organization should continue to stress the individual student participation on the local level to fulfill the aims and objectives. State and national activities should not be eliminated, however, as they can serve to build additional personal development of the advanced students and serve as goals for students to attain.

Summary of Conclusions

(1) Students' personal development competencies were not affected by the activeness of their FFA chapter.

(2) Students' individual FFA activity participation was not affected by the activeness of their FFA chapter.

(3) The personal development competencies of leadership, occupational choice, home surroundings, agricultural orientation, scholarship,

and overall personal development were positively correlated with FFA activity participation.

(4) The personal development competencies of self-confidence, citizenship, cooperation, thrift, and health and recreation had no correlation with FFA activity participation.

(5) The self-perceived competencies were significantly higher in the following PDI scales for participants of the corresponding FFA activities.

(a) leadership: improvement project, chapter farmer, committee chairperson, state conference attendance and participant, chapter president, chapter officer, proficiency award application, chapter proficiency received, chapter speech contest, county fair exhibitor, junior officer, banquet, fund raising, community service, chapter awards, leadership camp, and national convention attendance.

(b) self-confidence: chapter farmer, banquet, fund raising.

(c) occupational choice: improvement project, chapter farmer, committee chairperson, state conference participant, proficiency award application, chapter proficiency award received, greenhand degree, banquet, fund raising, community service, state conference attendance.

(d) home surroundings: improvement project, state conference participant, banquet, community service, chapter awards.

(e) agricultural orientation: improvement project, chapter farmer, state band/chorus, chapter speech contest, county fair exhibitor, banquet, fund raising, community service, attendance at 90 percent of meetings, judging contest.

(f) citizenship: improvement project, state fair exhibitor, banquet, fund raising, community service.

(g) cooperation: improvement project, chapter farmer, banquet, fund raising.

(h) thrift: improvement project, chapter farmer, banquet, fund raising, community service.

(i) scholarship: improvement project, chapter farmer, committee chairperson, banquet, fund raising, community service.

(j) health and recreation: chapter officer, banquet, fund raising, attendance at 90 percent of meetings.

(k) overall personal development: improvement project, chapter farmer, committee chairperson, state conference participant, chapter officer, banquet, fund raising, community service, chapter awards, attendance at 90 percent of meetings.

(6) The self-perceived competencies were significantly lower in the following PDI scales for participants of the corresponding FFA activities.

(a) self-confidence: star greenhand, state fair exhibitor, state band/chorus, chapter president, Washington conference, chapter exhibit.

(b) home surroundings: Washington conference.

(c) citizenship: star greenhand.

(d) cooperation: star greenhand, state fair exhibitor, chapter president, Washington conference, star chapter farmer, greenhand degree, state fair worker.

(e) thrift: star greenhand, state fair worker.

(f) health and recreation: star greenhand, state fair exhibitor, state band/chorus, national convention participant.

(g) overall personal development: star greenhand, state fair exhibitor, state band/chorus, national convention participant.

(7) Students with medium and high levels of FFA activity participation perceived their leadership competencies significantly higher than students with limited FFA activity participation.

(8) Students with high levels of FFA activity participation perceived their occupational choice competencies significantly higher than students with limited FFA activity participation.

(9) No difference existed between limited, medium, and high FFA activity participation groups and their perceptions of personal development in the following areas: self-confidence, home surroundings, agricultural orientation, citizenship, cooperation, thrift, scholarship, health and recreation, and overall personal development.

(10) Neither the overall personal development nor any of the 10 subscales were significantly affected by participation in the following FFA activities: Iowa farmer degree application, district proficiency

award received, district speech contest, national FFA week, test plot, summer trip, parlimentary procedure or conduct of meetings team, program of activities team.

Implications for the FFA Organization

From the results of this study, the following implications were formulated for FFA chapters, state organizations, and the national organization.

(1) The organization should continue to stress the personal development objectives outlined in its aims and purposes.

(2) The FFA should continue to promote and sponsor activities which enable all students to participate.

(3) The organization should continue to offer activities with requirements that do not restrict participation.

(4) Based on the positive PDI scores of students participating in local activities, chapters should strive to include many local activities in their program of activities.

(5) Advisors should work with high achievers who receive awards so that those students may reach their high expectations; the advisors should preview and follow-up state and national activities to enhance the confidence of these students.

(6) Members should be encouraged to attend state and national conferences to strengthen their leadership competencies.

(7) New activities should be developed or existing programs should be modified to strengthen students' self-confidence competencies.

(8) The organization should continue to stress agricultural career exploration and skill development.

(9) It appears that fund raising and banquet attendance reinforce a student's personal development based on the positive significant relationships between those activities and participants' PDI scale scores. These activities should be continued to be strongly stressed by the FFA.

(10) The FFA should continue emphasis on the following activities: improvement project, chapter farmer, committee chairperson, state conference, chapter officer, community service, chapter awards, and attendance at meetings since participants in these activities had significant positive PDI scores.

(11) The FFA should re-evaluate whether the following activities fulfill the personal development objectives of the organization: state farmer application, district proficiency awards, district speech contest, national FFA week, test plots, summer trips, parliamentary procedure and conduct of meetings teams, and program of activities teams.

Recommendations for Further Research

Many questions were developed from the results of the study. The following suggestions were made for future investigation.

(1) Compare the personal development of freshman FFA students to senior FFA students.

(2) Compare non-FFA students' personal development to FFA members' personal development.

(3) Investigate the personal development of FFA members throughout the United States.

(4) Examine the personal development of selected groups of FFA members including star greenhands, star chapter farmers and agribusinessmen, state farmers, state and national officers, district and national proficiency award winners, and state and national judging teams.

(5) Investigate the relationship of advisors' personal development and chapter activeness and students' personal development.

(6) Refine the Personal Development Inventory to obtain higher reliability on each scale.

Summary

The primary focus of this study was to determine if the objectives of the FFA were fulfilling their purposes. The activities of the organization were examined as to their relationship to students' personal development. The study was conducted as a part of a research project for the Iowa Agriculture and Home Economics Experiment Station.

The rationale for the study was created from a review of the literature. The three sections of the review investigated personality assessment, leadership and personal development activities, and the FFA and personal development. The traits of personal development were studied by personologists through the use of self-assessment questionnaires with a rational-theoretical approach. Leadership and personal development com-

petencies were objectives of several workshops, classes, and seminars where mixed results occurred as to how those competencies were altered following participation in the activities. Vocational youth organizations were a means to increase personal development qualities and Future Farmers of America (FFA) members participated in many activities to aid career development, cooperation, leadership, agricultural skill refinement, and citizenship.

The sample for this study included 426 senior agriculture students who were members of the FFA in 54 Iowa high schools. The students were administered 2 questionnaires--The Personal Development Inventory and The FFA Activity Participation Inventory. A jury of experts weighed the activities listed on the FFA inventory as to the activity's importance in a student's FFA membership.

The data were statistically analyzed at the Iowa State University Computation Center with programs from the Statistical Package for Social Sciences (SPSS). Reliabilities, frequencies, t-tests, and analysis of variances were computed to answer the following research questions.

(1) Is there a difference between the activeness of chapters and FFA members' self-perceived personal development or their participation in FFA activities?

(2) Is there a relationship between a student's self-perceived personal development and total high school FFA participation?

(3) Is there a difference between students' participation in certain FFA activities and their self-perception of themselves in the 10 PDI scales and their overall personal development?

(4) Is there a difference in students' level of FFA participation and their self-perception of themselves in the 10 PDI scales and their overall personal development?

(5) How are the limited, medium, and high FFA participants profiled according to the 10 scale scores and overall personal development?

Many conclusions concerning the 10 PDI scales and overall personal development of the FFA members were presented from the results of the data analyses. It appeared that the FFA was fulfilling its objective of members' personal development in the area of leadership. Another major inference from the study suggested that a positive relationship existed between participation in local FFA activities and the students' perception of their personal development. Therefore, emphasis should continue for activities which involve a majority of members on the local level.

REFERENCES

Allport, G. W. 1937. Personality: a psychological interpretation. Page 163 in Mark Sherman. Personality: inquiry and application. Pergamon Press, New York.

Braker, Clifton Kay. 1973. The image of the FFA as perceived by current active members and advisors. Ed.D. Thesis. Library, Oklahoma State University. 166 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 35:4733-B).

Carlin, Larry D. 1969. Relationship between student participation in the "in-school" Neighborhood Youth Corps and school behaviors and attitudes. Ph.D. Thesis. Library, United States International University. 207 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 30:5521-A).

Carter, Richard I. 1979. The role of youth organizations for students interested in agricultural careers. Iowa Agriculture and Home Economics Experiment Station, Project 2385.

Clark, Almond, Adolph. 1978. An analysis of leadership and self-confidence and/or self-acceptance outcomes from student participation in Distributive Education Clubs of America. Ph.D. Thesis. Library, University of Minnesota. 207 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 39:837-A).

Curtis, Shirley Ann. 1979. The effects of personal development education on growth toward self-actualization: an empirical analysis. Ph.D. Thesis. Library, The Florida State University. 129 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 40:5331-A).

Ebbers, Larry H. 1968. Relationship of Future Farmers of America leadership activities to participation in student activities at Iowa State University. M.S. Thesis. Library, Iowa State University, Ames, Iowa.

Edwards, A. A. 1953. Manual for Edwards Personal Preference Schedule. Psychological Corporation, New York.

Edwards, Allen L. 1970. The measurement of personality traits by scales and inventories. Holt, Rinehart, and Winston, Inc., New York.

Fiske, Donald W. 1971. Measuring the concepts of personality. Aldine Publishing Company, Chicago, Illinois.

Future Farmers of America. 1972. The new FFA student performance objectives. Office of Education, Washington, D.C. ERIC ED 105 189.

Gilbertson, O. S., Larry Rathbun, and Joe E. Sabol. 1975. Involvement of vocational agriculture students in vocational education student organizations. A staff study. Agricultural Education Department, California Polytechnic State University, San Luis Obispo, California. ERIC ED 111 956.

Glass, Gene V., and Julian C. Stanley. 1970. Statistical methods in education and psychology. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Goodwin, Dalyta. 1973. Relationship between student participation in the secondary gifted seminar program (San Diego Unified School District) and school behaviors and attitudes. Ph.D. Thesis. Library, United States International University. 164 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 33:6173-A).

Hampson, Michael N., L. H. Newcomb, and J. David McCracken. 1976. Essential leadership and personal development competencies needed in agricultural occupations as identified by agriculture leaders in Ohio. Paper presented at the National Agricultural Education Research Meeting, Houston, Texas. Department of Agricultural Education, Ohio State University, Columbus, Ohio.

Hampson, Michael N. 1977. Essential leadership and personal development competencies needed in agricultural occupations as identified by agriculture leaders in Ohio. Summary of Research Series, SR 12. The Department of Agricultural Education, The Ohio State University. ERIC ED 141 645.

Hull, C. Hadlai, and Norman H. Nie. 1979. SPSS update. McGraw-Hill Book Company, New York.

Hylton, V. Wendell. 1977. Career education: the role of school-related youth groups and voluntary organizations. Information Series No. 108. National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio. ERIC ED 149 178.

Kantner, Earl F., and Ralph E. Bender. 1967. The FFA in a changing vocational agriculture program. Agriculture Education Magazine 39:246.

Lasap, Sotero L. 1971. The leadership attitudes of former national FFA officers. Ph.D. Thesis. Library, University of Maryland. 145 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 32:5683-A).

Liverant, S. 1958. The use of Rotter's social learning theory in developing a personality inventory. Psychological Monographs 72(2). (Entire issue)

Loevinger, J. 1948. The technic of homogeneous tests compared with some aspects of "scale analysis" and factor analysis. Psychological Bulletin 45:507-529.

McCollum, Tommie Lee. 1979. The effect of multicultural leadership training on the self-concept and leadership behavior of high school students. Ph.D. Thesis. Library, United States International University. 199 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 40:5390-A).

Murray, H. A. 1938. Explorations in personality. Oxford University Press, New York.

Nie, N. H., C. H. Hull, J. G. Jenkins, K. Steinbrenner, and D. H. Bent. 1975. Statistical package for the social sciences. 2nd ed. McGraw-Hill Book Company, New York.

Perry, James Mitchell. 1980. The effects of leadership training on interpersonal and intra-personal development. Ed.D. Thesis. Library, University of the Pacific. 121 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 41:3016-A).

Rathbun, Larry Peter. 1974. The relationship between participation in vocational student organizations and student success. Ph.D. Thesis. Library, The Ohio State University. 410 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 35:2859-A).

Rotter, J. B. 1954. Social learning and clinical psychology. Prentice-Hall, Englewood Cliffs, New Jersey.

Sherman, Mark. 1979. Personality: inquiry and application. Pergamon Press, New York.

Snelling, Richard Vernon. 1973. The effect of student participation in curriculum development and revision on student attitude. Ph.D. Thesis. 205 pp. University Microfilms, Ann Arbor, Michigan. (Diss. Abstr. Int. 34:7525-A).

Spooner, Kendrick. 1974. Vocational youth organizations--are they needed? Colorado Research Coordinating Unit, Ft. Collins and Colorado State Board for Community Colleges, Denver. ERIC ED 113 528.

Super, Donald E., and Martin J. Bohn, Jr. 1970. Occupational Psychology. Wadsworth Publishing Co., Inc., Belmont, California.

Townsend, Joe D. 1981. An experimental evaluation of an instructional packet on leadership and FFA for beginning students in vocational agriculture in Iowa. Ph.D. Thesis, Library, Iowa State University, Ames, Iowa.

Tuckman, Bruce W. 1978. Conducting educational research. 2nd ed. Harcourt Brace Jovanovich, Inc., New York.

United States Senate Committee on Labor and Public Welfare. 1968. Notes and working papers concerning the administration of programs authorized under vocational education act of 1963. P. L. 88-210. Washington, D.C.

Van Dalen, Deobold B. 1973. Understanding educational research. 3rd ed. McGraw-Hill Book Company, New York.

Welton, Richard F., and Ralph E. Bender. 1971. Relationship of student characteristics and program policies to participation in FFA. A Digest of a Ph.D. Dissertation. The Department of Agricultural Education, The Ohio State University, Columbus, Ohio. ERIC ED 054 379.

White, Inman. 1977. An assessment of Texas FFA contests as perceived by secondary school principals, parents, current FFA members, and teachers of vocational agriculture. A Summary Report of Research. Department of Agricultural Education, Texas A & M University, College Station, Texas. ERIC ED 145 118.

Woodworth, R. S. 1920. Personal data sheet. Stoelling, Chicago, Illinois.

Yarworth, Joseph S., and William J. Gauthier. 1978. Relationship of student self-concept and selected personal variables to participation in school activities. Journal of Educational Psychology 70(3):335-344.

ACKNOWLEDGMENTS

The writer expresses her sincere appreciation to all those persons who extended support for this project. She offers special thanks to the following persons:

Dr. Richard I. Carter, who, as major professor, spent those many hours perfecting the text and guiding its completion, as well as offering his encouragement and motivation;

Joe Townsend for providing the love and support needed to see the light at the end of the tunnel, standing by in times of crisis and success, and sharing in the experiences of agricultural education;

Dr. David L. Williams for acting as co-major professor and director of the Graduate and Professional Opportunities Program, the source of my financial support;

other members of the graduate committee--Dr. Harold Crawford, Dr. Larry Ebbers, and Dr. Anton Netusil for their availability and comments;

Dr. Rex Thomas and Suzanne Poland who provided the expertise to solve computer program puzzles which arose during data analyses;

Lori Kyle for typing the final manuscript with quality, precision and speed;

the vocational agriculture instructors and students who participated and cooperated throughout the course of the project;

my parents and family for providing continual reassurance during my extended education; and

Kelly and Mike Townsend for their understanding and kindness during the nights and weekends of writing.

APPENDIX A: CORRESPONDENCE

Iowa State University of Science and Technology Ames, Iowa 50010

Department of Agricultural Education
223 Curtiss Hall
Telephone 515-294-5872

November 14, 1980

Dear

We are attempting to evaluate students' involvement in FFA and how that involvement relates to their leadership and personal development. Participation in some activities may indicate more "total involvement" in FFA than others. Therefore, we are asking you to serve as a member of a jury of FFA leaders to help in assigning weights to selected activities. A participation score for students will then be calculated using the weighted values and the actual activities in which students have been involved. This information will be used in an Iowa Experiment Station project to study the relationship of FFA activities and personal development.

Thanks, in advance, for serving in this capacity. We would greatly appreciate it if you could return the attached form, in the provided envelope, by December 1.

Sincerely,

Christine Davis Townsend
Graduate Research Assistant
Agricultural Education

Dr. Richard I. Carter
Associate Professor
Agricultural Education

CDT/RIC:blv

Iowa State University of Science and Technology Ames, Iowa 50011

Department of Agricultural Education
223 Curtiss Hall
Telephone 515-294-5872

DATE: November 17, 1980

TO: Selected Vocational Agriculture Teachers

FROM: Christine D. Townsend and Dr. Richard I. Carter

SUBJECT: FFA Research Project

Greetings from the I.S.U. Agricultural Education staff!! First, let us take this opportunity to thank you for your participation in Joe Townsend's research project.

May we, now, impose upon you again? It won't take long or hurt much. We have developed a study related to Joe's and would like to question your senior FFA members. The purpose of this study is to ascertain if a relationship exists between a student's participation in FFA activities and their leadership and personal development.

Our request of you would entail administering two questionnaires to your students. This activity would take only approximately 20 to 30 minutes of your class time. Your job would be to distribute the instruments to your students, then mail them back to us in a supplied envelope.

Your cooperation is both needed and appreciated! Please return the enclosed postcard indicating the number of seniors in your vo-ag class or best representative semester class. (If, for some reason, you can't participate, check the "NO" section of the postcard.) Please return the postcard by December 1 at which time we will mail out the questionnaires.

Thanks, in advance, for your help!

CDT/RIC:blv

PLEASE FILL OUT THE FOLLOWING INFORMATION AND DROP IN THE MAIL...

_____ _____

Instructor's Name Name of School

_____ YES, I'll be glad to help out in the FFA study!

There are _____ students in my largest class of seniors (vo-ag 4 or semester class).

_____ NO, I won't be able to participate in the study.

Iowa State University of Science and Technology Ames, Iowa 50011

Department of Agricultural Education
223 Curtiss Hall
Telephone 515-294-5872

December 5, 1980

Howdy!

The vo-ag instructors of this state are great! The response to my survey has been going well. I realize that some of you are very busy, but I still need to know from you if you will be able to participate in my study. Then of course there is always the strong possibility that maybe the first letter got lost in the mail.

Anyway, enclosed is another postcard with the information I need from you. I would greatly appreciate it if you would fill out this postcard, as soon as possible, and just drop it in the mail. I'll take it from there.

If you have any questions, please contact me at 515/294-8453.

Cordially,

Chris Davis Townsend
Graduate Student
Agricultural Education

CDT:blv

Iowa State University of Science and Technology Ames, Iowa 50011

Department of Agricultural Education
223 Curtiss Hall
Telephone 515-294-5872

DATE: January 7, 1980

TO: Selected Vo-Ag Teachers

FROM: Chris Davis Townsend

SUBJECT: FFA Participation Study

Happy New Year! Hope things are starting out on a positive note.

Some weeks ago I mailed you a packet of materials concerning a research study on FFA Activity Participation. You should have received questionnaire booklets and computer answer sheets for your seniors to fill out. It is important that I have all the completed answer sheets by January 16. If for some reason you did not receive the packet OR if you mailed it long ago, please contact my secretary (515/294-8453).

Thanks for all your help and cooperation.

CDT:blv

Iowa State University of Science and Technology Ames, Iowa 50011

Department of Agricultural Education
223 Curtiss Hall
Telephone 515-294-5872

Date: November 25, 1980

To: Participating vo-ag instructors

From: Christine D. Townsend and Richard I. Carter

Subject: FFA Research Study

Thanks for agreeing to help out with this research project! Enclosed find the following items:

1. Directions for administering the questionnaire (blue sheet)
2. Questionnaires for each student (yellow pamphlet)
3. Computer answer sheets for each student
4. Return envelope (no postage needed)

Please have your students fill out the questionnaire as soon as possible (at your convenience) and return them to the Ag. Ed. department by December 19, 1980 at the latest!

Again, thank you for your help & cooperation!

CDT/RIC:blv

APPENDIX B: SCHOOLS AND VOC. AG. TEACHERS PARTICIPATING IN THE STUDY

Table 29. Schools and vocational agriculture instructors participating in the study

Name of school	Instructor(s)	School district	Student respondents
Adair	Mark W. Williams	Adair-Casey Community	4
Ankeny	Cheryl Neptin	Ankeny Community	14
Belmond	Gary A. Stenzel	Belmond Community	7
Centerville	Tom Cope	Centerville Community	6
Charter Oak	Alan L. O'Neal	Charter Oak-Ute Community	9
Colo	Thomas D. Davis, Jr.	Colo Community	4
Delhi	Terry Brase Rick Stumpe	Maquoketa Valley Community	7
Grinnell	Lloyd A. Smith	Grinnell-Newburg Community	8
Guttenberg	Steven D. Zaruba	Guttenberg Community	6
Jesup	Dennis L. Schlagel	Jesup Community	13
LeGrand	Charles R. Pilling	L-D-F Community	3
Osceola	Leland D. Dolecheck Frederick J. Redman	Clarke Community	14
Swea City	Clifford S. Van Berkum Neil M. Wubben	North Kossuth Community	10
Webster City	Mark A. Noll Paul A. Hackbarth	Webster City Community	2
Wellman	Paul Swank	Mid-Prairie Community	9
Titonka	Marvin Carlson	Titonka Consolidated	9
Manchester	Robert D. Wendt Jerry Biermann	West Delaware County Community	10
Goose Lake	Edward Faselt	Northeast Community	7
Farragut	David J. Quinlan	Farragut Community	6
Sumner	John A. Scott	Sumner Community	6
Alden	Chuck E. Kolbet	Alden Community	4
Clarinda	Ron Beaver	Clarinda Community	9

Table 29. (Continued)

Name of school	Instructor(s)	School district	Student respondents
Dunkerton	Lyle J. Bare	Dunkerton Community	12
Fairbank	Dianne Scott	Wapsi Valley Community	4
Fairfield	Keith R. Wells Roger L. Gay	Fairfield Community	12
Hampton	David J. Flint	Hampton Community	8
Indianola	John Turner	Indianola Community	4
Osage	Lewis G. Lauterbach	Osage Community	12
Palmer	William A. Meyer	Palmer Consolidated	2
Parkersburg	Paul Hackbarth	Parkersburg Community	4
Sheldon	Frederick A. Van Loh	Sheldon Community	8
Shenandoah	Allen A. Carrell Fred L. Goudge	Shenandoah Community	7
Stanton	Richard D. Taylor	Stanton Community	4
Truro	David W. Young	Interstate 35 Community	7
Riceville	James J. Green	Riceville Community	5
Eldridge	Keith P. Schmidt	North Scott Community	11
Marengo	Andrew E. Rowe	Iowa Valley Community	10
Tama	Frank D. Albertson Roger D. Avery	South Tama Community	13
Chariton	M. Leroy Corder	Chariton Community	6
Edgewood	William O. Kenney	Edgewood-Colesburg Community	13
Farmington	Lyle R. Burkett	Harmony Community	5
Greenfield	George H. Freese, Jr.	Greenfield Community	10
Iowa Falls	Bruce P. Moore John A. Anderson	Iowa Falls Community	8
Lake City	Rudolph E. Engstrom	Lake City Community	13
Liberty Center	Paul D. Blount	Southeast Warren Community	6
Mediapolis	James R. Howell	Mediapolis Community	16

Table 29. (Continued)

Name of school	Instructor(s)	School district	Student respondents
Nashua	Bob A. Leavens	Nashua Community	5
Newell	Gary J. Wyatt	Newell-Providence Community	7
Rolfe	Dennis L. Adkisson	Rolfe Community	12
Sheffield	Ron L. Eichmeier	Sheffield-Chaplin Community	4
Sigourney	Donald M. Flipping	Sigourney Community	6
West Bend	Robert H. Cast Mark E. Lohafer	West Bend Community	13
Stuart	Daniel R. Wilson	Stuart-Menlo Community	8
Central City	Carl L. Scheid	Central City Community	4

APPENDIX C: INSTRUMENTS FOR DATA COLLECTION

FFA ACTIVITY PARTICIPATION OPINIONAIRE

INSTRUCTIONS TO THE JURY: Please indicate the degree of importance you would attach to each of the items using the following scale:

1	2	3	4	5	6	7	8	9	10	11
Little or no importance					Average Importance					Utmost Importance

In evaluating FFA participation by SENIOR vo-ag students, how important are each of the following activities?

___1. Achieved Greenhand Degree

___2. Selected Star Greenhand

___3. Achieved Chapter Farmer Degree

___4. Selected Star Chapter Farmer/Agribusinessman

___5. Applied for Iowa Farmer Degree

___6. Attended 90% of chapter meetings

___7. Participated in chapter fund raising project (fruit, seeds, popcorn, etc.)

___8. Attended parent-member banquet

___9. Worked on chapter community service project

___10. Participated in chapter award programs (BOAC, Safety, Food for America, etc.)

___11. Attended FFA Leadership Camp (chapter, district)

___12. Coordinated a National FFA Week activity

___13. Worked on demonstration/test plot

___14. Participated in chapter summer trip

___15. Served as committee chairperson

___16. Served as junior, assistant, or greenhand officer

___17. Served as a chapter president

___18. Applied for and/or served as a chapter officer

(over)

1	2	3	4	5	6	7	8	9	10	11
Little or Importance					Average Importance					Utmost Importance

___19. Attended state Leadership Conference

___20. Represented chapter at state conference as a delegate, usher, and/or courtesy corps member

___21. Selected as a member of state FFA band or chorus

___22. Prepared chapter exhibit for state conference, fairs, etc.

___23. Attended National FFA Convention

___24. Participated as usher, courtesy corps member, band or chorus member at the National Convention

___25. Attended Washington Leadership Conference

___26. Applied for chapter proficiency award

___27. Received chapter proficiency award

___28. Received gold, silver, or bronze proficiency award <u>above</u> chapter level

___29. Presented FFA speech at chapter level (Creed, Public, Extemporaneous)

___30. Represented chapter in speaking contest at district competition

___31. Participated in a state judging contest (livestock, meats, milk quality and dairy foods, dairy, floriculture, nursery and landscape, farm management, or ag. mechanics)

___32. Represented chapter in Parliamentary Procedure and/or Conduct of Meetings contest <u>above</u> chapter level

___33. Participated in Chapter Program of Activities contest <u>above</u> chapter level

___34. Exhibited in the FFA division at the county fair

___35. Exhibited in the FFA division at the state fair

___36. Worked at the state fair with the FFA

___37. Participated in local livestock or crop improvement projects

THANKS VERY MUCH FOR YOUR HELP!!!

Directions for Administering the "Personal Development Inventory" and the "FFA Activity Questionnaire."

INSTRUCTORS, PLEASE READ THE FOLLOWING PREPARED STATEMENT TO YOUR STUDENTS PRIOR TO ADMINISTERING THE INSTRUMENT.

> Our vo-ag department has been selected to participate in a research project to evaluate students' involvement in FFA and how that involvement relates to their leadership and personal development. You are asked to complete one questionnaire with two parts. The first part, entitled "Personal Development Inventory," is designed to assess your perception of yourself. The second, "FFA Activity Participation," is designed to gather basic information about your participation in the FFA.
>
> Your response is <u>important</u> for the total project and will be combined with other responses from seniors across Iowa. You are not being asked to identify yourself and your grade will not be affected by your participation. Please be open and honest in your response.
>
> Complete only the information asked for on the questionnaire, and do <u>not</u> write your name, social security number, or any other identifying information on the answer sheet.

INSTRUCTORS, DISTRIBUTE ONE COPY OF THE INSTRUMENT AND ONE ANSWER SHEET TO EACH STUDENT. GO OVER THE STUDENT INSTRUCTIONS WITH THE STUDENTS, AND MAKE SURE THEY UNDERSTAND HOW TO FILL IN THE COMPUTER ANSWER SHEET.

THANKS FOR YOUR HELP AND COOPERATION!!

The Agricultural Education Department
Iowa State University

Read each of the following statements carefully. After reading each statement, use the scale provided to rate your feelings toward the statement. If you choose a "1" it would indicate that you strongly disagree with the statement, a "4" would mean that you neither agree nor disagree and a "7" would indicate that you strongly agree with the statement. You may use any number on the scale. For each statement blacken the number you wish to use in the appropriate blank on the answer sheet. REMEMBER, you can only select one of the seven numbers on the scale.

1	2	3	4	5	6	7
strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree

1. I understand our environment has a delicate balance.
2. I get along with the people around me.
3. I use past experiences to make decisions.
4. I have a realistic opinion of myself.
5. I am recognized as a leader by those of my own age.
6. I am a cost conscious person.
7. I feel that exercise is important.
8. I learn from others.
9. I look for new and unknown occupational experiences.
10. I find money controls my life.
11. I enjoy learning about people with different backgrounds and experiences.
12. I take pride in taking part in agricultural activities.
13. I know where to find information about career opportunities.
14. I feel change is part of life.
15. I find it easy to give a speech in front of others.

1	2	3	4	5	6	7
strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree

16. I live by the beliefs I have learned.

17. I feel responsible for my actions.

18. I realize there is often more than one answer to any problem.

19. I am aware of the buying and selling power of money.

20. I believe that a balanced diet is important to proper health.

21. I believe that every citizen should vote when they are of age.

22. I have made changes in the way I live to save energy.

23. I set goals that I want to reach.

24. I work on things that are most important first.

25. I am respected by others my age.

26. I am eager to learn.

27. I believe learning is a lifelong process.

28. I can explain difficult ideas to others to help them understand.

29. I can learn from the experiences of others.

30. I am willing to listen to the ideas of others.

31. I can express my opinions when I feel they are important.

32. I use information in making decisions.

33. I find it difficult to talk with others.

34. I believe that a healthy body builds a strong mind.

35. I believe that local farm organizations are important in improving the agriculture industry.

36. I am aware of career opportunities.

37. I learn best when I learn by doing.

38. I feel that it is every farmer's responsibility to participate in organizations which promote agricultural products.

1	2	3	4	5	6	7
strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	strongly agree

39. I understand myself.

40. I respect the property of others.

41. I feel that promotion of agricultural products is important for the industry.

42. I take pride in what is mine.

43. I make decisions by following a series of steps.

44. I am actively involved in spreading the good word of agriculture.

45. I try to understand how I fit into today's society.

46. I can lead a discussion.

47. I like challenges that make me think.

48. I understand the importance of developing values.

49. I can cooperate and work in a group.

50. I understand the difference between right and wrong.

51. I respect the opinions, feelings and emotions of people of different ages.

52. I contribute to the goodness and quality of agriculture.

53. I am sure of my abilities.

54. I believe that the role of agriculture is to feed a hungry world.

55. I can accept who I am.

56. I take pride in my appearance.

57. I consider other choices before making a decision.

Now...

CONTINUE WITH PART 2--

FFA
ACTIVITY PARTICIPATION

DIRECTIONS: The following are a variety of FFA activities which are may or may not have done as a member of the FFA. Please answer the questions by marking on your answer sheet a "1" for YES or a "2" for NO. This is not a test, and there are no right or wrong answers. Please mark an answer for each question.

SINCE BECOMING AN FFA MEMBER, HAVE YOU:

YES	NO		
(1)	(2)	58.	received the Greenhand Degree?
(1)	(2)	59.	received the Chapter Farmer Degree?
(1)	(2)	60.	been selected Star Greenhand?
(1)	(2)	61.	been selected Star Chapter Farmer/Agribusinessman?
(1)	(2)	62.	applied for Iowa Farmer Degree?
(1)	(2)	63.	attended 90% of the chapter meetings?
(1)	(2)	64.	participated in chapter fund raising projects (fruit, seeds, popcorn, etc.)?
(1)	(2)	65.	attended the parent-member banquet?
(1)	(2)	66.	worked on a chapter community service project?
(1)	(2)	67.	participated in chapter award programs (BOAC, Safety, Food for America, etc.)?
(1)	(2)	68.	attended FFA Leadership Camp (chapter, district)?
(1)	(2)	69.	coordinated an activity for National FFA Week?
(1)	(2)	70.	worked on a demonstration/test plot?
(1)	(2)	71.	participated in a chapter summer trip?
(1)	(2)	72.	served as a committee chairperson?
(1)	(2)	73.	served as a junior, assistant, or greenhand officer?

SINCE BECOMING AN FFA MEMBER, HAVE YOU:

YES	NO		
(1)	(2)	74.	served as chapter president?
(1)	(2)	75.	applied for and/or served as chapter officer?
(1)	(2)	76.	attended the state Leadership Conference?
(1)	(2)	77.	represented the chapter as a state conference delegate, usher, and/or courtesy corps member?
(1)	(2)	78.	been selected as a member of the state FFA band or chorus?
(1)	(2)	79.	prepared a chapter exhibit for state conference, fairs, etc.?
(1)	(2)	80.	attended the National FFA Convention?
(1)	(2)	81.	participated as an usher, courtesy corps member, band or chorus member at the National Convention?
(1)	(2)	82.	attended the Washington Leadership Conference?
(1)	(2)	83.	applied for a chapter proficiency award?
(1)	(2)	84.	received a chapter proficiency award?
(1)	(2)	85.	received gold, silver, or bronze proficiency award above the chapter level?
(1)	(2)	86.	presented an FFA speech at the chapter level (Creed, Public, Extemporaneous)?
(1)	(2)	87.	represented the chapter in a speaking contest at district competition?
(1)	(2)	88.	participated in a state judging contest (livestock, meats, milk quality and dairy foods, dairy, floriculture, nursery and landscape, farm management, or ag. mechanics)?
(1)	(2)	89.	represented the chapter in Parliamentary Procedure and/or Conduct of Meetings contest above chapter level?
(1)	(2)	90.	participated in the Chapter Program of Activities contest above chapter level?
(1)	(2)	91.	exhibited in the FFA division at the county fair?
(1)	(2)	92.	exhibited in the FFA division at the state fair?
(1)	(2)	93.	worked at the state fair with the FFA?

SINCE BECOMING AN FFA MEMBER, HAVE YOU:

YES NO

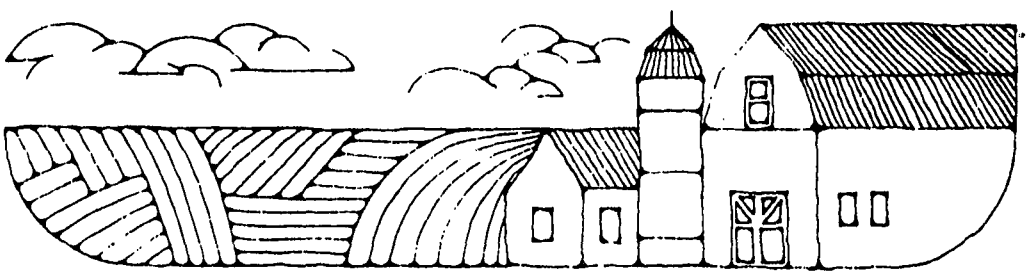
(1) (2) 94. participated in local livestock or crop improvement projects?

ARE YOU NOW:

YES NO

(1) (2) 95. a senior in high school?

THANKS!



APPENDIX D: ITEMS AND WEIGHTED VALUES FOR THE FFA ACTIVITIES

Table 30. FFA activities rated by selected jury

Rank	Activity	Jury Mean
1	Attended Washington leadership conference	10.17
2	Served as chapter president	9.67
3	Applied for and/or served as chapter officer	9.67
4	Applied for Iowa farmer degree	9.50
5	Attended 90% of chapter meetings	9.17
6	Participated in chapter award programs	9.00
7	Represented chapter in Parliamentary Procedure and/or conduct of meetings contest above chapter level	8.83
8	Applied for chapter proficiency award	8.67
9	Worked on chapter community service project	8.67
10	Participated in state judging contest	8.50
11	Received chapter proficiency award	8.50
12	Received gold, silver, or bronze proficiency award above chapter level	8.50
13	Achieved chapter farmer degree	8.50
14	Represented chapter in speaking contest at district competition	8.33
15	Represented chapter at state conference as a delegate, usher, and/or courtesy corps member	8.17
16	Attended national FFA convention	8.17
17	Selected star chapter farmer/agribusinessman	8.17
18	Participated in chapter fund raising project	8.17
19	Participated in chapter program of activities contest above chapter level	7.83
20	Attended parent-member banquet	7.83
21	Served as committee chairperson	7.83
22	Participated as usher, courtesy corps member, band or chorus member at national convention	7.67
23	Attended FFA leadership camp	7.67
24	Attended state leadership conference	7.50
25	Presented FFA speech at chapter level	7.33
26	Coordinated a national FFA week activity	7.33
27	Participated in local livestock or crop improvement projects	7.17
28	Achieved greenhand degree	7.17
29	Exhibited in the FFA division at the state fair	7.00
30	Prepared chapter exhibit for state conference	6.67
31	Selected star greenhand	6.50
32	Served as junior assistant or greenhand officer	6.33
33	Worked at state fair with the FFA	6.00

Table 30. (Continued)

Rank	Activity	Jury Mean
34	Exhibited in the FFA division at the county fair	6.00
35	Worked on demonstration/test plot	6.00
36	Selected as a member of state FFA band or chorus	5.67
37	Participated in chapter summer trip	3.83

APPENDIX E: ADDITIONAL TABLES

Table 31. Student participation in chapter-oriented FFA activities

FFA activity	Student group: Participants		Student group: Nonparticipants		Total	
	N	%[a]	N	%[a]	N	%[a]
Attended 90% chapter meetings	290	68.4	134	31.6	424	100
Missing cases					2	
Participated in chapter fund raising projects	391	92.0	34	8.0	425	100
Missing cases					1	
Attended parent-member banquet	364	86.1	59	13.9	423	100
Missing cases					3	
Worked on community service project	325	76.7	99	23.3	424	100
Missing cases					2	
Chapter awards programs (i.e. BOAC)	244	57.7	179	42.3	423	100
Missing cases					3	
Leadership camp	126	39.8	297	70.2	423	100
Missing cases					3	
National FFA week	194	45.8	230	54.0	424	100
Missing cases					2	
Test plot	238	56.1	186	43.9	424	100
Missing cases					2	
Summer trip	112	26.4	313	73.5	425	100
Missing cases					1	
State leadership conference	103	24.2	323	75.8	426	100
Missing cases					0	
Chapter exhibit	112	26.3	314	73.7	426	100
Missing cases					0	

[a]Adjusted for missing cases.

Table 31. (Continued)

FFA activity	Student group: Participants		Student group: Nonparticipants		Total	
	N	%	N	%	N	%
National FFA convention	173	40.7	252	59.3	425	100
Missing cases					1	
State judging contest	167	39.2	259	60.8	426	100
Missing cases					0	
Parliamentary procedure and/or conduct of meetings	207	48.7	218	51.3	425	100
Missing cases					1	
Program of activities contest	79	18.6	346	81.4	425	100
Missing cases					1	
State fair work	51	12.0	373	88.0	424	100
Missing cases					2	

Table 32. Student participation in individual-oriented FFA activities

FFA activity	Student group: Participants		Student group: Nonparticipants		Total	
	N	%[a]	N	%[a]	N	%[a]
Greenhand degree	380	90.5	40	9.5	420	100
Missing cases					6	
Chapter farmer	349	82.9	72	17.1	421	100
Missing cases					5	
Star greenhand	60	14.2	362	85.8	422	100
Missing cases					4	
Star chapter farmer/ agribusinessman	38	9.0	385	91.0	423	100
Missing cases					3	
Applied for Iowa farmer	71	16.8	352	83.2	423	100
Missing cases					3	
Committee chairperson	255	59.9	170	39.9	425	100
Missing cases					1	
Junior officer	146	34.4	279	65.6	425	100
Missing cases					1	
Chapter president	60	14.1	366	85.9	426	100
Missing cases					0	
Chapter officer	250	58.8	175	41.2	425	100
Missing cases					1	
State conference participant	110	25.9	315	74.1	425	100
Missing cases					1	
State band/chorus	28	6.6	397	93.4	425	100
Missing cases					1	

[a]Adjusted for missing cases.

Table 32. (Continued)

FFA activity	Student group: Participants		Student group: Nonparticipants		Total	
	N	%	N	%	N	%
National convention participant	20	4.7	406	95.3	426	100
Missing cases					0	
Washington leadership conference	30	7.1	395	92.9	425	100
Missing cases					1	
Applied for chapter proficiency	231	54.4	194	45.5	425	100
Missing cases					1	
Received chapter proficiency award	168	39.5	257	60.5	425	100
Missing cases					1	
Proficiency award above chapter level	93	21.8	333	78.2	426	100
Missing cases					0	
Speech-chapter level	173	40.7	252	59.3	425	100
Missing cases					1	
Speech-district level	83	19.5	342	80.5	425	100
Missing cases					1	
Exhibited-county fair	143	33.6	282	66.4	425	100
Missing cases					1	
Exhibited-state fair	62	14.6	364	85.4	426	100
Missing cases					0	
Improvement project	226	53.1	200	46.9	426	100
Missing cases					0	