

**Leadership and Personal Development Abilities Possessed
by High School Seniors Who Are Members in
Superior and Non-Superior FFA Chapters, and by
Seniors Who Were Never Enrolled in Vocational Agriculture**

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If the agricultural education profession and those involved in the world of work are to prepare vocational agriculture students for specific occupations, they must develop the "total" individual. Students entering the world of work must be not only technically competent, they must also possess leadership and personal development abilities. Besides the technical skills that are taught in a vocational agriculture program, leadership and personal development skills are also taught through the use of the FFA.

There has been much rhetoric as to the amount of learning caused by the FFA. Testimonials have come from civic leaders, legislators, administrators, and others. The value of the FFA is generally assumed to be beneficial to the personal growth and development of its members. However, research has not been completed which indicates specifically what members learn by being in the FFA. Therefore, a real need existed for a comprehensive study of the FFA and vocational agriculture to determine if the leadership and personal development abilities, thought to be developed through participation in FFA, were in actuality learned.

Purpose

The primary purpose of this study was to describe the leadership and personal development abilities that were possessed by four groups of high school seniors, namely, those who participated in high-quality (superior) FFA chapters, low-quality (non-superior) FFA chapters and by those seniors from high schools with superior and non-superior FFA chapters who were never enrolled in vocational agriculture.

Objectives

The objectives of the study are reflected in the following research questions:

1. What are the differences in the level of leadership and personal development ability of students in superior FFA chapters,

non-superior FFA chapters, and of students with no vocational agriculture and FFA?

2. What is the relationship between level of leadership and personal development ability and activeness in the FFA?

3. What is the relationship between level of leadership and personal development ability and the following variables: socio-economic status, grade point average, intelligence test score, and other school and community activities?

Methodology

Sample Investigated

Active FFA members in traditional vocational agriculture four-year programs in Middle Tennessee comprised the target population for this study. The sample for this study was 12th-grade senior males in Middle Tennessee who were enrolled in vocational agriculture and FFA programs from eight randomly selected superior FFA chapters and eight randomly selected non-superior FFA chapters. Senior males from the same 16 schools who were never enrolled in vocational agriculture were also a part of the study.

Instrumentation

Two instruments were developed to gather data. The first instrument, identified as the Student Questionnaire, was developed to secure information from students relative to their grade-point average and intelligence test score which was gathered by guidance counselors. The students completed information relative to socio-economic status, school and non-school activities. Members completed additional information about the FFA activities in which they participated. The second instrument, consisting of 66 criterion-referenced multiple-choice questions, was developed to measure leadership and personal development abilities of the subjects.

Validity and Reliability of the Instruments

The instruments were reviewed by a panel of experts to evaluate the content validity of the instruments. After revisions, the instruments were pilot tested. A Kuder-Richardson 20 reliability coefficient of .86 was obtained on the 66 question criterion-referenced test measuring leadership and personal development abilities. The reliability of the first instrument (Student Questionnaire) was established during earlier studies by Welton (1971) and Rathbun (1974).

Data Gathering Procedure

Each school principal was visited by the investigator during 1982 in order to secure permission to collect data in his/her school. The guidance counselor was then visited to ask for cooperation in administering the measuring instrument to the students. Counselors also provided appropriate information from the the students' records. A total of 258 usable instruments were returned from the vocational agriculture teachers or guidance counselors. This represented a student response rate of 93%. High school grade point averages and Tennessee high school state proficiency test scores (a measure of general competence) were requested for 23 of the non-respondents. The high school grade point averages of the non-respondents and the Tennessee high school state proficiency test scores of the non-respondents were similar to those of the respondents.

Data Analysis

Data were analyzed using analysis of variance, analysis of covariance, the Newman-Keuls Test, Pearson Product Correlation, and other appropriate statistics utilizing the SPSS computer program.

Results

Leadership and Personal Development Ability

As is shown in Table 1, the average score of all students was just over 50%. The highest scores (59%) were attained by vocational agriculture students who were members of superior FFA chapters. The lowest performance (41%) was from non-vocational agriculture students in schools with non-superior FFA chapters.

Table 1

Mean Scores of the Four Groups on the Test Measuring Leadership and Personal Development Abilities

| | Ag students/ superior FFA chapters (n = 64) | Ag Students non-superior FFA chapters (n = 50) | Non-ag students/ superior FFA chapters (n = 69) | Non-ag students/ non-superior FFA chapters (n = 74) | Grand mean |
|------------------------|--|---|---|---|---------------|
| Mean test score (%) | 59.52 | 55.21 | 50.40 | 41.30 | 51.54 |

Table 2 reports a statistically significant difference among the four groups on the test scores measuring leadership and personal development abilities when high school grade point average was taken into account. The F value when high school grade point average was taken into account was 18.30 with the significance of F being $p < .001$.

In order to determine where the significant differences were among the four groups, the Newman-Keuls test was used. Table 3 reports there was not a significant difference at the .05 level between vocational agriculture/FFA students from superior FFA chapters and vocational agriculture/FFA students from non-superior FFA chapters. However, vocational agriculture/FFA students from non-superior FFA chapters performed significantly ($p < .05$) better than non-vocational agriculture students from schools with superior FFA chapters.

Vocational agriculture/FFA students from superior FFA chapters had significantly higher ($p < .05$) scores than non-vocational agriculture students. Furthermore, non-vocational agriculture students from schools with superior FFA chapters performed significantly better ($p < .05$) than non-vocational agriculture students from schools with non-superior FFA chapters.

Table 2

Analysis of Covariance with Test Score as Dependent Variable and High School Grade Point Average as Covariate

| Source | SS | DF | Mean square | F | Significance of F |
|--|----------|-----|-------------|-------|---------------------|
| Covariate (HSGPA) | 3709.74 | 1 | 3709.74 | 31.76 | 0.001 |
| Treatment-- main effects (group) | 6411.02 | 3 | 2137.01 | 18.30 | 0.001 |
| Residual (error) | 28963.94 | 248 | 116.79 | 21.66 | |
| Total | 39084.70 | 252 | 155.10 | | |

Table 3

Analysis of Covariance with Post Hoc Analysis Using the Newman-Keuls Test on the Adjusted Test Scores with High School Grade Point Average as the Covariate

| | Ag students/ superior FFA chapters (Group 1) | Ag students/ non-superior FFA chapters (Group 2) | Non-ag students/ superior FFA chapters (Group 3) | Non-ag students/ non-superior FFA chapters (Group 4) |
|-------------------------|---|---|--|--|
| Number | | | | |
| adjusted mean | 65 | 50 | 69 | 74 |
| test score ^a | <u>39.38</u> | <u>37.80^b</u> | 32.93 | 26.78 |

^a Sixty-six question criterion-referenced test score measuring leadership and personal development abilities. These means represent number of items correct.

^b Means not connected by a common underline differ significantly at the .05 level.

FFA Activeness

The vocational agriculture students/FFA members from superior FFA chapters were somewhat more active than vocational agriculture students/FFA members from non-superior chapters in each of the four levels of participation (chapter, district and regional, state and national levels). The relationship between level of leadership and personal development ability and activeness in the FFA is shown in Table 4.

Activeness in the FFA at the chapter level had a higher correlation with leadership and personal development abilities ($r = .48$) than activeness at the district or regional ($r = .43$), state ($r = .39$), or national ($r = .07$) levels. There was a higher relationship between the leadership and personal development abilities of students from superior FFA chapters and their level of state activeness ($r = .16$). All the correlations were significant at the .05 level except for national activeness.

Extraneous Variables

The relationship between the level of leadership and personal development and the following possible extraneous variables: socio-economic status, grade point average, intelligence test score, and other school and community activities was calculated by using Pearson Correlation Coefficients. Table 5 reports these relationships.

Table 4

Relationship Between Level of Leadership and Personal Development Ability and Activeness in the FFA

| Groups | Chapter activeness | District/ regional activeness | State activeness | National activeness | Total FFA activeness |
|--|--------------------|-------------------------------|------------------|---------------------|----------------------|
| Test score of all vo-ag/FFA students (n = 115) | 0.48 | 0.43 | 0.39 | 0.07 | 0.48 |
| Significance | p < 0.001 | p < 0.001 | p < 0.001 | p = 0.227 | p < 0.001 |
| Superior FFA chapters test score (n = 65) | 0.48 | 0.47 | 0.47 | 0.11 | 0.52 |
| Significance | p < 0.001 | p < 0.001 | p < 0.001 | p = 0.189 | p < 0.001 |
| Non-superior FFA chapters test score (n = 50) | 0.46 | 0.33 | 0.16 | -0.16 | 0.37 |
| Significance | p < 0.001 | p = 0.009 | p = 0.139 | p = 0.130 | p = 0.004 |

High school grade point average and state proficiency test score (a measure of general competence used in Tennessee) were related with leadership and personal development ability with correlations of $r = .31$ and $r = .45$ respectively. These two correlations were significant at the $p < .001$ level. Socio-economic status, school activeness, and total activeness had correlations with leadership and personal development ability of $r = .19$, $r = .23$, and $r = .22$ respectively with significance at the $p < .001$ level. Non-school activeness was related to leadership and personal development ability with a correlation of $r = .10$ with a significance of $p < .05$.

Conclusions

The following conclusions were based upon the findings in this study and the interpretation by the investigators:

1. The leadership and personal development abilities scores as measured in the study are far lower than that with which the profession can be pleased.

Table 5

Relationship of Level of Leadership and Personal Development Ability With Selected Variables (Pearson Correlation)

| Groups | Socio-economic status | High school grade point | State proficiency test score | Non-school activeness | School activeness | Total activeness |
|--|-----------------------|-------------------------|------------------------------|-----------------------|-------------------|------------------|
| Test score of all students grouped together (n = 258) | 0.19 | 0.31 | 0.45 | 0.10 | 0.23 | 0.22 |
| Significance | p < 0.001 | p < 0.001 | p < 0.001 | p = 0.053 | p < 0.001 | p < 0.001 |
| Ag. students non-superior chapters total score (Group 1: n = 65) | 0.40 | 0.31 | 0.53 | 0.10 | 0.39 | 0.35 |
| Significance | p < 0.001 | p = 0.008 | p < 0.001 | p = 0.210 | p < 0.001 | p < 0.001 |
| Ag. students non-superior chapters total score (Group 2: n = 50) | 0.12 | 0.31 | 0.38 | 0.12 | 0.13 | 0.18 |
| Significance | p = 0.204 | p = 0.017 | p = 0.006 | p = 0.202 | p = 0.183 | p = 0.113 |
| Non-ag students/superior chapters total score (Group 3: n = 69) | 0.23 | 0.43 | 0.47 | 0.20 | 0.35 | 0.34 |
| Significance | p = 0.029 | p < 0.001 | p < 0.001 | p = 0.054 | p = 0.002 | p = 0.002 |
| Non-ag students/non-superior chapters test score (Group 4: n = 74) | 0.26 | 0.53 | 0.74 | 0.07 | 0.19 | 0.17 |
| Significance | p = 0.012 | p < 0.001 | p < 0.001 | p = 0.281 | p = 0.054 | p = 0.082 |

2. Vocational agriculture students/FFA members from both superior and non-superior chapters possess significantly more leadership and personal development abilities than non-vocational agriculture students.

3. Students who are more active tend to develop higher levels of leadership and personal development ability.

4. Vocational agriculture students/FFA members from superior FFA chapters are more active in FFA activities than vocational agriculture students/FFA members from non-superior chapters.

5. Chapter activeness has a higher relationship to leadership and personal development abilities possessed by FFA members than activeness at district or regional, state and national levels.

6. Non-vocational agriculture students from schools that have superior FFA chapters possess significantly more leadership and personal development abilities than non-vocational agriculture students from schools that have non-superior FFA chapters.

Recommendations

1. In all sub-parts of the leadership and personal development criterion-referenced test, the scores were relatively low. This would imply there needs to be a critical review of the instructional process in teaching leadership and personal development abilities. Vocational agriculture instructors (FFA advisors) should establish instructional goals which include the teaching of leadership and personal development abilities. The teacher (FFA advisor) should develop methods and procedures to evaluate the success or failure of the program. Vocational agriculture teachers (FFA advisors) need to develop methods and procedures which will increase the learning of leadership and personal development abilities. State staff need to critically examine this area of teaching.

2. Since activeness in the FFA was associated with leadership and personal development abilities, the FFA should be used as a vehicle to strengthen the availability of opportunities for students in vocational agriculture. Students should be encouraged to participate in as many activities as possible.

3. State Departments of Vocational Technical Education should consider developing a course of study (which would be distributed to the vocational agriculture instructors) which would include emphasis on leadership and personal development abilities.

4. Due to the especially low percentage of correct responses that pertained to supervised occupational experience programs and record books, State Department of Education staff members and teacher educators should work with FFA advisors to make sure that every student is participating in a SOE program and that records are being completed. Most of the awards and degrees with the FFA are based upon sound supervised occupational experience programs with good record keeping procedures.

References

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