

**Factors Concerning Students' Perceptions of
Teaching Vocational Agriculture**

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Students start making career decisions long before they make the final choice; therefore, they may be influenced at different times in their lives. Faulks (1969) found that one-third of the agricultural education graduates in his study on teacher recruitment decided during high school to enter agricultural education. By the time they were college freshmen, another one-third had decided to enter agricultural education. Faulks also reported that the vocational agriculture instructor was the most influential person in students' decisions to major in agricultural education. Hoerner (1965) found that 26% of the agricultural education graduates were influenced most by their vocational agriculture instructor in deciding to become a teacher. These findings suggest that high school vocational agriculture students have a close relationship with their vocational agriculture instructors, and that instructors have considerable influence on their students' career decisions.

Purpose of the Study

The purpose of this study (Sprouse, 1981), was to determine the degree to which high school senior vocational agriculture students perceived vocational agriculture teachers' roles and responsibilities as encouraging or discouraging them to pursue a career in agricultural education.

Objectives of the Study

The specific objectives of the study were to:

1. Identify selected background characteristics of high school vocational agriculture seniors in the southeast district of Iowa.

2. Identify factors senior vocational agriculture students perceive as encouraging and discouraging them to enter agricultural education.
3. Determine if differences exist in students' perceptions of teacher roles and responsibilities that encourage or discourage them to pursue a career in agricultural education when grouped by selected student characteristics.

Methodology

This research employed explanatory descriptive procedures with a causal-comparative design (Borg & Gall, 1979). The target population consisted of all seniors enrolled in vocational agriculture in the Southeast District of Iowa. A cluster sampling procedure was used to select participants for the study. The 42 high school vocational agriculture programs in the district served as the unit of sampling. A random sample of 20 schools was selected from the sampling frame of 42 schools. Then, all senior vocational agriculture students in the 20 selected schools were asked to participate in the study.

The questionnaire used to collect data for this study consisted of two parts: (a) a section to elicit students' personal background data and (b) a section to determine students' perceptions regarding the effects of selected job responsibilities on their decisions to pursue a career in agricultural education. The questionnaire consisted of 55 situational items describing roles and/or responsibilities of the vocational agriculture teacher. Respondents were asked to indicate on a 11-point scale (1=strongly discourage, 5=slightly discourage, 6=neither encourage or discourage, 7=slightly encourage, and 11=strongly encourage) the degree to which each of the situations encouraged them to or discouraged them from pursuing a career in agricultural education.

The questionnaire items embodied three overall factors; therefore, individual items were summated to give three factor scale scores and a composite score. Factor A - Personal, consisted of 24 personal items related to the vocational agriculture teachers' roles and responsibilities. Two example instrument items making up personal factors were: "Ability to work near his/her home" and "Opportunity for a 12-month employment contract." Factor B - General Teaching Responsibilities, consisting of 22 items related to the classroom and other structured instructional responsibilities of the teacher. Examples of items making up this factor were: "Opportunity to apply classroom instruction to practical problems" and "Overall cooperation received from vocational agriculture students." Factor C - Future Farmers of America (FFA) and Supervised Occupational Experience (SOE) Responsibilities, included nine factors related to FFA advising and SOE supervision responsibilities of the teacher. Examples of items constituting this factor were: "Responsibility in supervising students' SOE programs" and "Role of training FFA judging teams."

Internal consistency and inter-scale analysis were computed on the three factor scales (as part of data analysis) and on the composite score. The reliability coefficients (Cronbach's internal consistency coefficient alpha) ranged from 0.85 to 0.96 for the scales, indicating the scales were internally consistent.

Teachers in the selected schools were asked to administer the instrument to the senior vocational agriculture students in a regularly scheduled vocational agriculture class. These procedures yielded data from 174 (100% of the senior vocational agriculture students) in the 20 randomly selected schools.

As reported earlier, students responded to 55 roles and responsibilities on a scale of 1 to 11. These values were transformed to 0 to 16 scale as follows:

Response Value	1	2	3	4	5	6	7	8	9	10	11
Transformed Value	0	3	5	6	7	8	9	10	11	13	16

This method of scoring "spreads out" the ends of the original scale. It assumes that there is a greater difference between a respondent who rated an item 1 and another who rated an item 2 than there is between two respondents, one of whom rated an item 5 and the other who assigned an item 6 (Warren, Klonglan, & Sabri, 1969). Numerical values for the scales were computed by averaging the transformed responses of the items comprising the scales. This procedure yielded a value for each scale with the same numerical orientation, (0 to 16 with a midpoint of 8).

One-way analysis of variance was used to test for significant differences between students' perceptions of vocational agriculture teachers' roles and responsibilities when grouped by selected student characteristics. When more than two groups were included in the analysis, the Scheffe' post hoc test was employed to identify differences between all possible pairs of group means.

Findings

The results of inferential analysis will be preceded by a profile of the respondents and a descriptive analysis of students' perceptions of a career in agricultural education.

A partial profile of the students who participated in this study follows:

1. A majority were males with a farm background.
2. They had older brothers and sisters, half of whom had attended college.
3. They had earned over \$1,000 from their SOE programs and had received one or more on-site supervisory visits per year from their instructor.

4. They had been members of the FFA for four years and held the Chapter Farmer Degree.
5. They had held chapter offices or chaired committees in the FFA, and they had received recognition through the FFA.
6. They achieved grades of B and C in vocational agriculture and in other high school courses.
7. They planned to finish high school and over half planned to enroll in postsecondary training. Most, however, did not plan to pursue a baccalaureate degree.
8. They planned to enter agricultural occupations.

The 55 situational items, indicating students' perceptions toward selected roles and responsibilities of the vocational agriculture teacher constituted three factor scales. The means and standard deviations for these factors are presented in Table 1. The FFA/SOE responsibility of the vocational agriculture teacher encouraged students most (scale mean of 8.94) to consider a career in teaching. To a lesser degree, the personal factor slightly encouraged students to enter agricultural education. Finally, the general teaching responsibility of the vocational agriculture teacher was perceived as neither encouraging nor discouraging students. The composite mean score was 8.57, indicating that students' observations of the teacher's roles and responsibilities slightly encouraged them to enter teaching.

A major objective of this study was to test for differences between students' perceptions of teacher roles and responsibilities when

Table 1

Means and Standard Deviations for Factors A, B, C and Composite Score

Factor	Factor Name	Mean	S.D.
C	FFA/SOE Responsibilities	8.94	2.05
A	Personal Factors	8.79	1.75
B	General Teaching Responsibilities	8.20	1.92
Composite Score		8.57	1.74

students were grouped according to selected characteristics. Nine student characteristics were used as independent variables in analysis of variance tests.

Table 2 presents the means and *F*-ratios for the factor scales when students were grouped according to the grades received in vocational agriculture. There were significant differences among two of three scale means and among the composite means on the perceived degree of influence among the three grade groups. For each factor scale with a significant *F*-ratio, the means were higher for those students reporting B grades than for students reporting C grades. The mean of the C group tended to indicate less encouragement to students for entering teaching. In fact, the C students perceived general teaching responsibilities as slightly discouraging them from pursuing a career in agricultural education.

Table 3 presents the means and *F*-ratios for the three factors and the composite score when students were classified by their average high school grades. Significant differences were observed among the three groups for the three factors and the composite score. The Scheffe' post hoc test indicated that the significant differences in the means occurred between the B students and C students for each of the factors and the composite score. In general, the data reveal that students who received B grades perceived the roles and responsibilities of the vocational agriculture instructors as slightly encouraging them to enter agricultural education. Again, the C students perceived general teaching responsibilities as slightly discouraging them from pursuing a career in agricultural education.

Table 2

ANOVA of Students' Perceptions Classified by the Grades Received in Vocational Agriculture

Factor	Average vocational agriculture grade			<i>F</i> -ratio
	A's Mean n=39	B's Mean n=69	C's Mean n=59	
Personal factors	9.02	9.16	8.27	4.95** (B>C)
General teaching responsibilities	8.22	8.55	7.83	2.42
FFA/SOE responsibilities	8.96	9.36	8.48	3.23* (B>C)
Composite Score	8.67	8.94	8.12	3.93** (B>C)

* $p < .05$

** $p < .01$

Table 3

ANOVA of Students' Perceptions classified by Average Grades Received in All High School Courses

Factor	Average high school grade			F-ratio
	A's Mean n=11	B's Mean n=81	C's Mean n=78	
Personal factors	9.09	9.20	8.35	5.17** (B>C)
General teaching responsibilities	8.35	8.61	7.78	3.98** (B>C)
FFA/SOE Responsibilities	8.95	9.35	8.53	3.38* (B>C)
Composite score	8.76	8.98	8.14	4.99** (B>C)

*p<.05

**p<.01

Table 4

ANOVA of Students' Perceptions Classified by Whether or Not They Had Held an FFA Office

Factor	FFA office		F-ratio
	Yes n=79	No n=95	
Personal factors	9.05	8.58	3.16
General teaching responsibilities	8.39	8.05	1.32
FFA/SOE responsibilities	9.38	8.57	6.92**
Composite score	8.83	8.36	3.16

** p < .01

Data in Table 4 reveal means and *F*-ratios for students' perceptions classified by whether or not they held an FFA office. The *F*-ratio for the FFA/SOE factor was significant at the .01 level. The *F*-ratio for the other factors were not significant at the .05 level. This finding indicates that students who held an FFA office were more encouraged by FFA/SOE responsibilities of the teacher to enter agricultural education than those students who had not held an FFA office.

Table 5

ANOVA of Students' Perceptions Classified by Whether or Not the Student Had Chaired an FFA Committee

Factor	Chaired Committee		<i>F</i> -ratio
	Yes n=101	No n=73	
Personal factors	8.98	8.54	2.67
General teaching responsibilities	8.22	8.19	.01
FFA/SOE responsibilities	9.27	8.49	6.32*
Composite score	8.71	8.38	1.46

* $p < .05$

Table 5 reveals that means for all the scales were above 8.00, indicating that on the average, whether or not a student chaired a committee, he or she was at least slightly encouraged to enter agricultural education. It should be noted that the *F*-ratio associated with FFA/SOE responsibilities, was significant at the .05 level. This would indicate that those students who had chaired an FFA committee perceived the FFA/SOE responsibilities of the vocational agriculture teacher as encouraging them to enter agricultural education.

Data in Table 6 show there were differences between student groups in their perceptions of the influence of the FFA/SOE responsibility factor when the students were grouped by whether or not they had received FFA recognition. Students who had received FFA recognition through contests and/or awards were more encouraged to enter the field of agricultural education than students who had not received FFA recognition. The *F*-ratio of 8.28 indicates a significant difference between these means. No significant difference was observed for the other factors. Data in Table 7 reveal significant differences among groups of students in their perceptions of the influ-

Table 6

ANOVA of Students' Perceptions Classified by Whether or Not They Had Received FFA Recognition

Factor	FFA Recognition		F-ratio
	No n=144	Yes n=30	
Personal factors	8.25	8.91	3.57
General teaching responsibilities	7.78	8.29	1.72
FFA/SOE responsibilities	7.98	9.14	8.28**
Composite score	8.01	8.69	3.80

** $p < .01$

Table 7

ANOVA of Students' Perceptions Classified by the Highest Educational Plans

Factor	Educational Plans			F-ratio
	Group 1 Mean n=68	Group 2 Mean n=66	Group 3 Mean n=40	
Personal factors	8.39	9.07	9.01	2.94* (2>1)
General teaching responsibilities	7.90	8.52	8.30	1.84
FFA/SOE responsibilities	8.65	9.35	8.77	2.13
Composite score	8.23	8.89	8.67	2.49

Group 1 = plan to finish high school; Group 2 = plan to attend trade school, community college, or receive an associate degree; Group 3 = plan to attend four-year college or university.

* $p < .05$

ence of personal factors when grouped by highest educational plans. The students whose highest educational plans were to attend a trade school, community college, or some institution for an associate degree, were more encouraged by personal factors than those students who planned only to complete high school.

Additional analysis of variance tests (data not presented in this article) revealed no significant differences in students' perceptions of teacher responsibilities when students were grouped according to the following characteristics: (a) supervised occupational experience (SOE) earnings, (b) number of SOE on-site supervisory visits per year by the vocational agriculture instructor, and (c) occupational goals.

Recommendations

The following recommendations were based on the findings of this study:

1. Efforts to recruit students to pursue careers in agricultural education should be most effective with students who have B average grades in vocational agriculture in high school.
2. Students who have been members of the FFA, have received recognition in FFA, and have been officers or committee chairs in the organization should be identified and encouraged to enter agricultural education.
3. Students whose educational plans are to attend a postsecondary institution and earn less than a baccalaureate degree should be encouraged to enter agricultural education (and, correspondingly, to earn a baccalaureate degree).
4. Vocational agriculture teachers should attempt to portray their job roles and responsibilities in a realistic light to identify those students who are encouraged by their portrayal. These students should then be encouraged further to enter agricultural education.

References

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