Examining Superintendents', Vocational Agriculture Teachers' and Vocational Agriculture Students' Perceptions of Vocational Agriculture Programs

Dale E. Thompson, Assistant Professor
Education
University of Hawaii at Manoa

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The importance of perceptions and attitudes toward educational programs has long been known. The first annual report (1969) of the National Advisory Council on Vocational Education called for more emphasis on attitudes regarding vocational education. It was reported that attitudes were affecting vocational education more than any other one item (U.S. Office of Education, 1969). The National Agricultural Education Advisory Committee indicated that the top priority for agricultural education was the development of a more positive attitude about itself within the total educational establishment and the public in general (Fuller, 1975).

Viterna (1971) suggested that school administrators' opinions of vocational agriculture are very important since their decisions drastically affect program operations and directions. Shoemaker (1972) recommended further research of the perceptions of all persons involved in vocational agriculture with the findings to determine new directions and emphasis for programs. McGhee (1974) indicated that there is a need to study the effectiveness of vocational agriculture departments as perceived by various school personnel. It appears that information gained from examining perceptions can be used to help understand how others see vocational agriculture and, more appropriately, determine the program directions.

Purpose and Objectives of the Study

The primary purpose of this study was to examine the perceptions of superintendents, vocational agriculture teachers and vocational agriculture students toward vocational agriculture programs. The specific objectives were to determine:

1. The perceptions of superintendents, vocational agriculture teachers and vocational agriculture students toward the goals and objectives of vocational agriculture, the instructional program, the Future Farmers of America (FFA) and supervised occupational experience (SOE).

2. The relationships between superintendents', vocational agriculture teachers' and vocational agriculture students' perceptions and independent variables listed in Table 1.

Methodology

The study was a descriptive survey of perceptions of vocational agriculture programs. The survey form was developed from similar studies of vocational agriculture programs (Shinn, 1977; Shoemaker, 1972; Walton, 1979; Williams 1977). The instrument was validated by agricultural educators and field tested by high school superintendents and vocational agriculture teachers in Pennsylvania.

The survey form consisted of 13 SOE statements, 12 FFA statements, 15 instructional program statements, 10 goal and objective statements and a brief demographic section. The survey form statements are listed in Table 2.

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Table 1

Independent and Dependent Variables in the Study

Independent Variables	Dependent Variables
Age[b]	Perceptions regarding the component parts of vocational agriculture[a]
Level of formal education[b]	Perception of goals and objectives of vocational agriculture[d]
Major area of study[b]	
Instructional area[b]	
Years experience in education[b]	
Size of vocational agriculture department[b]	
Membership in professional organization[b]	
Number of years enrolled in vocational agriculture[a]	
Number of years as an FFA member[a]	
Home background as high school student[c]	
Year of high school graduation[c]	
Occupational status[c]	
Degree of occupational preparation[c]	

[a]For superintendents, teachers and students. [b]For superintendents and teachers. [c]For students. [d]Used both as independent and dependent variable.

Table 2

Survey Form Statements

The vocational agriculture instructional program---

- Helps students create an enthusiasm for learning
- Can benefit gifted students
- Strengthens the confidence of students in themselves and their work
- Generates student interest in other school activities
- Contributes much to career education and career development
- Fosters a deep respect for the dignity of work
- Encourages students to set desirable standards of behavior and work toward obtaining them
- Generates favorable public relations for the high school
- Should be eliminated from the high school curriculum
- Is not adapted to the needs of our modern society
- Provides poor preparation for more advanced technical training
- Provides students who are only suited for unskilled work
- Is not for the above average student
- Is too costly in terms of money, time and effort
- Involves students who are looked down upon by other students

The Future Farmers of America program---

- Provides opportunities for youth and adults to work together
- Is a valuable part of vocational agriculture programs
- Is effective in fostering the development of student leadership

Is an important public relations tool for vo-ag
Assists students in establishing realistic vocational goals
Develops student responsibility
Helps students learn to function within an organizational structure
Should not be considered an integral part of a high school vo-ag program
Does not improve scholarship
Does not lead to a more active student in all areas of school life
Involves too few club members in FFA activities
Does not capitalize on the skills learned in the class

The Supervised Occupational Experience Program---

Helps in the development of business practices for agriculture products
Is often beneficial in a future work experience program
Helps students create and/or maintain a favorable home environment
Helps students learn by doing
Helps students put to use principles and practices learned in the instructional program
Promotes participation in activities and organizations that improves agriculture in the community
Promotes participation in activities that develop leadership skills
Does not help students develop technical skills in producing crops and livestock
Does not help students develop financial decision making skills
Does not help students develop acceptable personal and work habits
Does not aid students in recognizing and solving problems
Does not help students recognize their talents and interests in making employment plans
Does not promote participation in the development of policies and programs that effect agriculture

The goals and objectives of vocational agriculture are---

To develop leadership abilities needed in fulfilling occupational, social and civic responsibilities
To develop competencies needed by individuals preparing to enter farming or agriculturally related occupations
To develop the ability to secure placement and to advance in agriculture related occupations through a program of continuing education
To provide instruction primarily for students unable to progress in college prep programs in high school
To train persons for entry into professional and technical occupations upon graduation from high school
To assist students to understand the preparation needed to enter and advance in agricultural occupations
To assist in developing human relations competencies essential in agriculture occupations
To develop an understanding of career opportunities in agriculture
To conduct agricultural research in an effort to increase food production
To develop competence in livestock and crop judging through the summer program of vocational agriculture

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The survey included a similar number of favorable and unfavorable statements about vocational agriculture programs. Favorable statements were scored from strongly disagree (1) to strongly agree (5). Unfavorable statements were scored in the reverse direction. Therefore, the higher the score, the more favorable the respondents were toward the specific statement.

Population

The population of the study consisted of public school superintendents, vocational agriculture teachers and vocational agriculture students in Arkansas. A 20% stratified random sample was selected from 241 schools in the four regions of Arkansas. The final sample consisted of individuals from 50 schools. The survey form was sent to the superintendent, the vocational agriculture teacher and three randomly selected vocational agriculture students at each of the 50 schools. Two follow-up instruments were sent at two-week intervals to all non-respondents. The final response rate was 82% for superintendents, 78% for teachers and 63% for students.

Data Analysis

The data were analyzed using the General Linear Model procedure which computes a complete analysis of variance for unequal groups for testing the differences in group perception means. Duncan's Multiple Range Test for Variance was used to determine which difference between perceptions was significant. A stepwise multiple regression was performed on the data in which each applicable independent variable was entered into a model with the dependent variable of perception score. This led to the evaluation of each independent variable's contribution to the variance in the dependent variable. Omega squared coefficient intervals and confidence intervals were calculated to determine the practical difference. Cohen's (1969) omega squared classification percentages for determining practical differences were used. They are as follows: small effect=.01-.08; medium effect=.09-.24; large effect=.25-1.00. The Hays (1963) procedures were used in constructing confidence intervals.

Findings

Perceptions of Primary Goals and Objectives of Vocational Agriculture

Ten statements regarding the goals and objectives for vocational agriculture were listed in the survey. Within the list were the six goals and objectives listed by the Joint Committee of the United States Office of Education and the Agricultural Education Division of the American Vocational Association (U.S. Office of Education , 1965). Generally, respondents agreed that all the statements described the goals and objectives for vocational agriculture. The mean perception score was 4.20 (±0.43). Teachers had the highest perceptions with a mean perception score of 4.41 (±0.45). Students were second with a mean score of 4.18 (±0.41), followed by superintendents with a mean score of 4.03 (±0.36).

One-way analysis of variance resulted in an F value of 8.63 which was significant at the .001 alpha level. A Duncan's Multiple Range Test for Variation was conducted to identify where significant differences occurred. Teachers had significantly more favorable perceptions of the primary goals and objectives of vocational agriculture than superintendents or students. There was no significant difference between the perceptions of students and superintendents.

Although there were significant differences between groups, a question of practical difference remained. The confidence intervals constructed according to the procedure identified by Hays (1963) indicated the following ranges: teachers, 4.26-4.56; students, 4.09-4.27; and superintendents, 3.91-4.15. These calculated confidence intervals substantiated the results of the Duncan's Multiple Range Test by showing that there was no statistically significant difference nor practical difference between students and superintendents on their perceptions of the goals and objectives of vocational agriculture. However, the confidence intervals do indicate a practical difference between teachers and superintendents. Omega squared was also used to determine if there was a practical difference in perceptions. The calculated omega squared for perceptions of goals and objectives of vocational agriculture was 0.10. According to the Cohen criteria for practical difference, this represented a medium effect. Therefore, there was a moderate practical difference in the respondents' perceptions regarding the goals and objectives of vocational agriculture.

Perceptions of Vocational Agriculture Instructional Programs

Results revealed that all respondents in each group were generally highly favorable toward the instructional program. The mean perception item score was 4.29 (±0.39), which indicates a highly positive perception of the instructional program. Data indicated that vocational agriculture teachers were the most favorable toward the instructional program with a mean perception item score of 4.56 (±0.30). Students were second with a mean score of 4.28 (±0.39). Superintendents were the least favorable toward the instructional program with a mean perception score of 4.05 (±0.52).

One-way analysis of variance resulted in an F value of 21.80 which was significant at the .001 alpha level. Therefore, a post hoc analysis, the Duncan's Multiple Range Test for Variation, was conducted to identify where significant differences occurred. The post hoc analysis revealed that teachers had significantly more favorable perceptions of the instructional program than did students or superintendents. Students also had significantly more favorable perceptions of the instructional program than did superintendents.

The calculation of confidence intervals to detect practical difference resulted in the following ranges: teachers, 4.46-4.66; students, 4.21-4.35; and superintendents, 3.92-4.18. The absence of overlap among the confidence intervals substantiates the significant difference between the perceptions of superintendents, teachers and students.

Perceptions of the instructional program had a calculated omega squared value of 0.21, which represented a medium effect. Therefore, there was a practical difference in the respondents' perceptions of the instructional program.

Perceptions Regarding the Future Farmers of America (FFA)

Findings revealed that superintendents, teachers and students were generally highly favorable toward the FFA with a mean perception item score of 4.10 (±0.46). This indicated a highly positive perception of the FFA. Teachers were most favorable toward the FFA with a mean perception item score of 4.41 (±0.43). Students were second with a score of 4.07 (±0.43). Superintendents were least favorable toward the FFA with a mean perception item score of 3.87 (±0.38).

A one-way analysis of variance resulted in an F value of 16.17 which was significant at the .001 alpha level. A post hoc analysis

revealed that teachers had significantly more favorable perceptions of the FFA than superintendents or students. Students also had significantly more favorable perceptions of the FFA than did superintendents.

Confidence intervals were constructed resulting in the following ranges: teachers, 4.27-4.55; students, 3.98-4.16; superintendents, 3.75-3.99. Overlap of the confidence intervals of superintendents and students indicated that caution must be used in identifying significant differences between the perceptions of superintendents and students. Perceptions of the FFA had an omega squared value of 0.17. This represented a medium effect. Therefore, there was a practical difference in the respondents' perceptions regarding the FFA.

Perceptions Regarding Supervised Occupational Experience (SOE)

Findings indicated that superintendents, teachers and students were generally favorable toward SOE with a mean perception item score of 4.03 (±0.41). This indicated a positive perception of SOE. Data indicated teachers were most favorable toward SOE with a mean perception item score of 4.17 (±0.63). Students were next with a mean perception item score of 4.07 (±0.41). Superintendents were least favorable toward SOE with a score of 3.80 (±0.45).

One-way analysis of variance resulted in an F value of 6.64 which was significant at the .001 level. The post hoc analysis revealed that teachers and students had significantly more favorable perceptions of SOE than did superintendents. However, perceptions of teachers and students were not significantly different.

The construction of confidence intervals resulted in the following ranges: teachers, 3.96-4.38; students, 3.98-4.16; superintendents, 3.66-3.94. The overlap of confidence intervals between teachers and students indicates that caution must be used in identifying significant differences between the perceptions of teachers and students. The calculated omega squared value of 0.08 indicated a small practical difference in respondents' perceptions of SOE.

Factors Influencing Superintendents' Perceptions

The influence of selected personal, educational and work experience variables on superintendents' perceptions of the instructional program, the FFA and SOE were examined. The data from the three areas were analyzed as one, using multiple regression analysis. In performing a stepwise multiple regression on the data, the applicable independent variables were entered into a model with the dependent variables. Each independent variable was evaluated for its contribution to the variance in the dependent variable.

The results of the stepwise multiple regression analysis indicated that the variables as a group accounted for 46% of the variance in the dependent variable regarding superintendents' perceptions of the instructional program, 48% of the variance regarding superintendents' perceptions of the FFA, and 47% of the variance regarding superintendents' perceptions of SOE.

The superintendents' perceptions of the goals and objectives for vocational agriculture were the most significant factors associated with their perceptions of the instructional program, the FFA and SOE. However, previous teaching area was found to be significantly associated with their perceptions of SOE. Superintendents who had taught mathematics had significantly lower perceptions of SOE than those who had taught

other subject areas. All other variables were not found to be significantly associated with their perceptions.

The stepwise multiple regression analysis of factors influencing superintendents' perceptions resulted in an omega squared value of 0.46 regarding the instructional program, an omega square value of 0.49 regarding the FFA and an omega squared value of 0.48 regarding SOE. All of these values fall into the large effect classification for practical difference. Therefore, there was a practical difference in superintendents' perceptions of the instructional program, the FFA and SOE.

Factors Influencing Teachers' Perceptions

Data for teachers were analyzed in the same manner as for superintendents. The results of the stepwise multiple regression analysis indicated that the variables, as a group, accounted for 54% of the variance in the dependent variable regarding teachers' perceptions of the instructional program, 56% of the variance regarding teachers' perceptions of the FFA, and 54% of teachers' perceptions of SOE. The analysis revealed that the factor most significantly associated with teachers' perceptions of the instructional program, the FFA and SOE was their perceptions of the goals and objectives of the vocational agriculture program. However, the number of years a teacher was enrolled in vocational agriculture as a high school student was also found to be a significant factor associated with their perceptions of the FFA. The more years a teacher had been enrolled in vocational agriculture as a high school student, the lower their perception of the FFA.

The stepwise multiple regression analysis of factors influencing teachers' perceptions resulted in an omega squared value of 0.54 regarding instructional programs, an omega squared value of 0.56 regarding the FFA and an omega squared value of 0.54 regarding SOE. All of these values fall into the large effect classification for practical difference. Therefore, there was a large practical difference in teachers' perceptions regarding the instructional program, the FFA and SOE.

Factors Influencing Students' Perceptions

The stepwise multiple regression analysis indicated that the variables, as a group, accounted for 30% of the variance in the dependent variable regarding students' perceptions of the instructional program, 45% of the variance regarding their perceptions of the FFA, and 33% of the variance regarding their perceptions of SOE. The analysis also revealed that the factor most significantly associated with students' perceptions of the instructional program, the FFA and SOE was their perceptions of the goals and objectives of vocational agriculture programs. However, there was one other factor associated with students' perceptions of the FFA. Students who perceived the degree of occupational preparation they received from vocational agriculture class as "good to excellent" had significantly higher perceptions regarding FFA when compared to those students who perceived their occupational preparation as "fair to poor."

The stepwise multiple regression analysis of factors influencing students' perceptions resulted in an omega squared of 0.30 for the instructional program, an omega square value of 0.45 for the FFA and an omega squared value of 0.33 for SOE. All of these values fall into the large effect classification for practical difference. Therefore, there was a practical difference in students' perceptions of the instructional program, the FFA and SOE.

Conclusions

The mean item score by group for each section of this study--the instructional program, the goals and objectives of vocational agriculture, the FFA and SOE--was over 4.0 on a 5-point scale. This indicated that all respondents had a positive perception of vocational agriculture.

When comparing groups, there were statistically significant and practical differences between the perceptions of teachers and superintendents regarding the following areas: the goals and objectives of vocational agriculture, the FFA, SOE and the instructional program. There were statistically significant and practical differences between the perceptions of teachers and students regarding the FFA, the goals and objectives of vocational agriculture and the instructional program. However, there was no statistically significant or practical difference between the perceptions of teachers and students regarding SOE. There were both statistically significant and practical differences between the perceptions of students and superintendents regarding the FFA, SOE and the instructional program. However, there were no significant or practical differences between the perceptions of students and superintendents regarding the goals and objectives of vocational agriculture.

When comparing variables, the factor most significantly associated with superintendents', teachers' and students' perceptions of the instructional program, the FFA and SOE was their perception of the goals and objectives of vocational agriculture. There were a few specific factors relating to individual perceptions. They were: (a) students who perceived the degree of occupational preparation they received from vocational agriculture class as "good to excellent" had significantly higher perceptions regarding the FFA when compared to those students who perceived their occupational preparation as "fair to poor;" (b) the more years a teacher had been enrolled in vocational agriculture as a high school student, the lower their perception of the FFA; and (c) superintendents who had taught mathematics had significantly lower perceptions of SOE than those who had taught other subject areas.

Recommendations

Superintendents' opinions of vocational agriculture are very important since their decisions drastically affect program operations and directions (Viterna, 1971). However, the results of this study indicated that school superintendents had consistently lower perceptions of the FFA, SOE and the instructional program than teachers or students. This suggests that superintendents may not understand the value or importance of those items. Teachers had higher perceptions than the other participants. This indicated they have the greatest knowledge and understanding of the value and importance of the FFA, SOE, the instructional program and the goals and objectives of vocational agriculture. Student perceptions, for the most part, fell above those of superintendents but below those of teachers. Therefore, the following recommendations are offered to help increase students' and superintendents' awareness of the value of vocational agriculture.

1. Vocational agriculture teachers should actively develop and promote vocational agriculture programs which emphasize the position and importance of the program within the general structure of the secondary school curriculum. This should increase student and superintendent awareness of the instructional program and its value and importance.

2. Vocational agriculture teachers should conduct FFA chapters with an emphasis on participation by all members in all phases of the FFA.

3. Vocational agriculture teachers and students should strive to educate and inform superintendents about SOE and involve them in SOE activities. This may be accomplished by emphasizing how SOE is used as a teaching method which is reinforced through SOE program visits.

4. An effort should be made by teachers and students to involve superintendents in FFA activities such as FFA banquets, livestock shows and judging contests.

The study should be replicated periodically to keep abreast of any changes in group perceptions of the major components of vocational agriculture programs. It could be expanded to include other groups such as school board members, parents, guidance counselors and community agriculture leaders. The results of similar studies in other states could be useful as a program evaluation tool for guiding, modifying and changing vocational agriculture programs.

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