

BENEFITS RECEIVED FROM SUPERVISED
OCCUPATIONAL EXPERIENCE PROGRAMS
AS PERCEIVED BY STUDENTS

David L. Williams
Agricultural Education Department
Iowa State University

The literature provides a philosophical base for supervised occupational experience (SOE) as an important instructional component of vocational agriculture programs. The agricultural education profession advocates that learning in agriculture is enhanced by SOE programs; however, the apparent erosion of SOE in recent years does not reflect this belief. This conflict between theory and practice prompted this investigation of the benefits students receive from vocational agriculture SOE programs. Work by Williams (1977) found that Iowa senior vocational agriculture students perceived their SOE to be important in developing occupational skills inherent in the objectives for vocational agriculture.

Purpose and Objectives

This research focused on the benefits students receive from their vocational agriculture SOE programs. The specific objectives were to:

1. Identify selected characteristics of Iowa vocational agriculture graduates who had received the Chapter Farmer Degree or State Farmer Degree prior to high school graduation in 1977.
2. Determine the benefits received from SOE programs by Chapter Farmer Degree and State Farmer Degree recipients.
3. Determine if there was a difference in the benefits received from SOE between Chapter Farmer Degree and State Farmer Degree recipients.

Methodology

The population for this research was the 1977 Iowa high school graduates who received the Chapter Farmer Degree or the State Farmer Degree as their highest FFA degree while enrolled

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in high school vocational agriculture. Samples of 100 Chapter Farmers and 100 Iowa Farmers were randomly selected from the population. A mailed questionnaire was developed and used to collect data from the sample groups approximately six months after they were graduated from high school. The questionnaire gathered personal and situational data and assessed benefits received from SOE programs. A 1 to 99 scale was used for the research participants to indicate how beneficial their SOE was by responding to 40 statements. The questionnaire and a cover letter were mailed to the homes of individuals in the sample. Three follow-up mailings were made at two-week intervals to the nonrespondents. These procedures yielded an 86 percent return from the State Farmer Degree group and a 63 percent return from the Chapter Farmer Degree group.

The data collected using the 1 to 99 continuum were transformed to normal deviates (Z). This procedure as described by Warren, et al., (1969) spreads out the tails and pushes together the middle of an equal appearing interval scale. To avoid the use of negative values, the normal deviates were multiplied by 100 and 500 added to each value. Examples of the values resulting from each transformation step compared to the 1 to 99 response framework are shown below:

99 point scale:	1	25	50	75	99
	no		average		much
	benefit		benefit		benefit
Normal Deviates					
(Z):	-2.326	-0.674	0.000	+0.674	+2.326
Z x 100 + 500:	267	433	500	567	733

Therefore, the benefit scores reported could range from 267 (no benefit) to 733 (much benefit), with a mid-point of 500 (average benefit). Percentages were used to analyze personal and situational data. The mean value and standard deviation were computed for each benefit item, and the t-test was used to test for significant differences between chapter farmers and state farmers.

Characteristics of Respondents

Table 1 compares chapter farmers and state farmers on selected personal and situational variables. The two groups were similar in many ways. Most of the people in both groups had a farm background and a majority had completed four years

Table 1
CHARACTERISTICS OF RESPONDENTS

Characteristic	Chapter Farmers	State Farmers
	(percentage)	(percentage)
Lived on a farm while in high school	86	98
Completed 4 years of vo-ag	73	90
Farming or plan to farm	41	52
Employed or plan to become employed in agribusiness	25	28
Attending area vocational school	22	26
Attending university	25	29
Participated in supervised farming program	80	98
Participated in placement type SOE	59	60
Participated in supervised laboratory SOE	33	33
Had farming program as major SOE	64	71
Had farm placement as major SOE	27	19
Had agribusiness placement as major SOE	6	3
Received adequate help from parents	88	90
Received adequate help from vo-ag teacher	75	90
Received one or more annual SOE visits from teacher	69	87

of vocational agriculture. Sixty-six percent of the chapter farmers compared to eighty percent of the state farmers had entered or planned to enter an agricultural occupation. About one-half of both groups was attending an area vocational school or university.

Many of the respondents participated in two or more types of SOE while enrolled in vocational agriculture. Almost all (98 percent) of the state farmers and 80 percent of the chapter farmers participated in farming programs. Approximately 60 percent of each group had SOE programs that involved farm or agribusiness placement. Thirty-three percent of each group had SOE programs that utilized school laboratories outside of scheduled class time.

When students were asked to indicate the one type of SOE they considered to be the most important, 64 percent of the chapter farmers and 71 percent of the state farmers reported farming programs. Farm placement was identified by 27 percent of the chapter farmers and 19 percent of the state farmers as their most important SOE. Only six percent or less of both groups identified agribusiness placement as their most important SOE, and none reported supervised laboratory as their most important SOE.

Eighty-eight percent of the chapter farmers and 90 percent of the state farmers indicated that they received adequate help from their parents in developing SOE programs. Approximately three-fourths of the respondents reported that the assistance they received from their vocational agriculture teacher was adequate. A larger percentage (31 percent) of the chapter farmers than the state farmers (13 percent) indicated that their vocational agriculture teacher did not visit them at the site of their SOE. Lack of individualized, personalized help through SOE visits may help explain why one-fourth of the chapter farmers did not view teacher assistance as adequate. About one-fourth of each group indicated that the teacher visited them three or more times per year. The mean number of teacher SOE visits received by the chapter farmers was 2.4 compared to 2.8 for the state farmers.

Benefits from SOE

The rank order, mean value and standard deviation for each benefit item are presented in Table 2 for the combined groups. All of the items had means of 500 ("average benefit") or above, except one, "improved school attendance." The five greatest benefits received from SOE programs by the combined groups were: (1) encouraged the keeping of records, (2) promoted the

Table 2

RANK ORDER, MEANS AND STANDARD DEVIATIONS FOR BENEFITS DERIVED FROM SOE

Benefit	Rank	Mean	S. D.
Encouraged the keeping of records ¹	1	612.27	102.52
Promoted the acceptance of responsibility ¹	2	609.97	79.86
Developed pride in ownership	3	608.73	91.34
Helped attain advanced FFA degrees ¹	4	605.93	129.64
Encouraged the production of animals and crops ¹	5	604.37	101.36
Developed skills needed by people in farming ²	6	594.17	95.57
Provided an opportunity to make decisions ²	7	591.79	84.20
Promoted interest in agricultural studies	8	589.85	90.34
Provided an opportunity to learn on your own	9	588.40	89.98
Developed self-confidence ²	10	583.91	81.11
Developed independence ¹	11	581.75	91.05
Provided an opportunity to solve problems	12	582.23	81.35
Encouraged learning while earning money	13	580.53	102.49
Provided an opportunity to manage money ²	14	579.49	96.62
Developed pride in employment	15	579.07	98.98
Encouraged use of approved agricultural practices ¹	16	577.05	89.44
Provided an opportunity to put plans into action ²	17	571.30	84.27
Provided motivation for learning ¹	18	570.86	85.65
Developed initiative ¹	19	569.37	86.58
Provided an opportunity to plan work ¹	20	568.41	80.31
Developed an appreciation for work	21	567.82	88.44
Developed abilities in cooperation	22	565.64	80.84
Provided experience in conducting business ²	23	565.54	96.99
Encouraged the use of business procedures	24	565.38	85.29
Aided in making career choices ²	25	563.94	108.61
Provided a way to grow into farming ¹	26	559.12	108.29
Encouraged approved marketing procedures ¹	27	553.23	99.01
Promoted student-teacher relationship ¹	28	552.49	102.90
Promoted student-parent relationship	29	547.55	94.06
Built a working relationship with other students	30	545.85	97.83
Provided a way to grow into an agribusiness job	31	537.02	133.47
Identified agricultural problems to be solved in classes	32	536.13	89.57
Contributed to relationships between school and home	33	535.93	102.29
Helped maintain a favorable home environment ²	34	531.87	100.54
Developed citizenship traits	35	523.12	110.25
Developed occupational skills for agribusiness	36	522.99	94.82
Provided for individualized teaching by the teacher ¹	37	521.48	109.67
Extended education from the school to the community	38	518.99	89.79
Contributed to community development	39	506.02	107.98
Improved school attendance	40	452.03	103.03

Mean for state farmers was significantly greater than mean for chapter farmers at .01 level.

Mean for state farmers was significantly greater than mean for chapter farmers at .05 level.

acceptance of responsibility, (3) developed pride in ownership, (4) helped attain advanced FFA degree, and (5) encouraged the production of animals and crops.

Significant differences in means were observed for the two groups for 21 of the 40 benefit items. In each case where significant difference was observed, the mean was greater for the state farmers than the chapter farmers. Such observations were made for benefits that were more long-range and permanent in nature, including these: (1) provided a way to grow into farming, (2) encouraged the use of approved agricultural practices, (3) developed skills needed by people in farming, (4) provided experience in conducting business, (5) aided in making career choices, and (6) developed self-confidence.

The five greatest benefits received from SOE by Chapter Farmer Degree recipients and ranked beginning with the item with the highest mean rating were as follows: (1) developed pride in ownership, (2) promoted the acceptance of responsibility, (3) encouraged the keeping of records, (4) developed pride in employment, and (5) encouraged the production of animals and crops.

The five greatest benefits state farmers received from SOE programs and ranked beginning with the item with the highest mean rating were as follows: (1) helped attain advanced FFA degrees, (2) encouraged the keeping of records, (3) promoted the acceptance of responsibility, (4) encouraged the production of animals and crops, and (5) developed pride in ownership.

The similarity in the greatest benefits received from SOE groups should be noted. The high ratings placed on such items as "developed pride in ownership" and "promoted the acceptance of responsibility" suggest that the benefits derived from SOE are not limited to the development of agricultural knowledge and skills, but that SOE may also help develop behaviors in the affective domain. "Encouraged the keeping of records" appeared among the top benefits received by both groups and was the greatest benefit when the two groups were combined. The high rating placed on "helped attain advanced FFA degree" by state farmers shows that state farmers associate the development of SOE programs with advanced FFA degrees.

It was observed that several benefits directly related to the home, school and community were included in the bottom one-third of the benefits when they were rank ordered for the combined groups. Occupational benefits directly associated with agribusiness (e.g., "developed occupational skills for agribusiness" and "provided a way to grow into an agribusiness job") were also among the bottom one-third of the benefits students felt they received from SOE programs. These findings may indicate a need for more student SOE programs that are agribusiness oriented.

Conclusions

1. A high percentage of the chapter farmers and state farmers lived on farms while in high school, and a majority had entered or planned to enter an agricultural occupation.
2. Only about one-half of the combined groups had plans for formal education beyond high school.
3. The SOE programs of both chapter farmers and state farmers were production agriculture oriented. Supervised farming programs were the dominant type of SOE for both groups.
4. Almost all of the respondents had adequate help from their parents in developing SOE programs and a majority had adequate help from their vocational agriculture teachers.
5. Variation was observed between groups and within groups on the number of annual SOE visits students received from their teachers. Some students received no visits while others received five or more.
6. Chapter farmers and state farmers shared many of the same benefits from SOE programs.
7. State farmers received greater benefits in some ways from SOE programs than chapter farmers.
8. SOE programs were beneficial to students, not only in the development of knowledge and skills, but also in the development of desirable occupational and educational attitudes and values.
9. SOE programs were more beneficial to students in areas related to production agriculture than areas related to agribusiness.

Implications for Teacher Education

1. When planning local vocational agriculture programs, student SOE programs should be emphasized as an important part, and teacher time allocated for individualized student help at the sites of the SOE programs.
2. In-service and preservice teachers of vocational agriculture should be informed of the benefits students receive from their vocational agriculture SOE programs. The fact that students recognize benefits received from SOE programs should help provide a renewed belief in the importance of SOE as a means of learning in vocational agriculture.

3. The teacher education curriculum should include instruction on how to develop and supervise different types of SOE programs for students in vocational agriculture. All vocational agriculture students should be encouraged to advance to the highest FFA degree possible, recognizing that SOE programs are an important basis for such achievement.
4. Teachers should understand how to help students interpret progress in SOE programs and to see the application of their experiences in appropriate agricultural occupations.
5. The benefits students receive from SOE programs should be communicated to state department vocational agriculture personnel, local school administrators, and others who develop policies for local vocational agriculture programs.
6. Additional research is needed to identify the benefits other groups (e.g., other groups of former vocational agriculture students, vocational agriculture teachers, parents, school administrators and employees) perceive students receiving from vocational agriculture SOE programs.

References

- Warren, Richard D., Gerald E. Klomglan, and Medhat M. Sabri, 1969. *The certainty method: its application and usefulness in developing empirical measures in social sciences*. Rural Sociology Report No. 82. Ames, Iowa: Department of Sociology and Anthropology, Iowa State University.
- Williams, David L. "Relationships Between Vocational Agriculture Students' Supervised Occupational Experience and Selected Variables," *The Journal of Vocational Education Research*, Spring, 1977, Vol. II, No. 1, pp. 17-28.

AG DIVISION RESEARCH MEETING

The sixth annual Agricultural Education Research Meeting is scheduled for November 30, 1979, in Anaheim, California. The meeting will be held in conjunction with the Convention of the American Vocational Association. Information about the meeting is available from:

Ronald A. Brown, Program Chairperson
National Agricultural Education Research Meeting
Post Office Drawer AV
Mississippi State University
Mississippi State, Mississippi 39762