

PARTICIPATION IN SUPERVISED AGRICULTURAL EXPERIENCE PROGRAMS: A SYNTHESIS OF RESEARCH

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Abstract

The objectives of this investigation were to synthesize research related to participation in supervised agricultural experience (SAE) programs and to identify areas of deficiency in SAE-related research. Findings showed that research in this area was primarily descriptive, survey, and nonprogrammatic. They revealed that SAE programs lacked definition, focus, and direction. No empirical studies were found to suggest that SAE programs were educationally beneficial, warranting student participation.

Teacher attitudes and expectations strongly influence SAE participation. While teachers claim to support the concept of SAE, many fail to implement the programs fully, resulting in decreased participation by students. Participation varies widely by state, is demographically dependent, and is lacking by all parties.

Future research in this area should be directed toward determining the empirical value of SAEs, their purpose and design, contributing factors to participation variance, factors which aid and/or limit participation, methods to create interest in SAEs, benefits for higher-achievers, factors which influence teachers to support SAEs, the role of record keeping, and type of SAE programs which would appeal to urban and suburban students.

Early in the twentieth century new philosophies of how to educate children began to emerge, the most notable of which was delineated by John Dewey. He proposed that by basing education on the personal experiences of a learner, both the quality and quantity of learning would increase. Dewey placed the burden of providing those experiences upon educators (Dewey, 1938). At least one teacher had already begun shouldering that responsibility. As early as 1908, agriculture teacher Rufus Stimson was encouraging students to utilize experiences gained in projects at home as a basis for study in school, originating the concept of the "home project," or supervised agricultural experience (SAE) programs, as we envision that concept today.

With the passage of the National Vocational Act in 1917, Stimson's vision of SAE became in actuality a mission statement of agricultural

education. Many teachers soon realized, however, that education in agriculture must encompass more than only one home project, and initiated broader SAE programs which were carried to the "doing level" (Phipps & Osborne, 1988). Phipps and Osborne defined supervised experience in agricultural education as consisting of

"...all the practical agricultural activities of educational value conducted by students outside of class and laboratory instruction or on school-released time for which systematic instruction and supervision are provided by their teachers, parents, employers, or others." (p.313)

Since the passage of the Vocational Education Act of 1963, the use of SAE programs in agriculture has declined (Moore, 1979). While the intent of the Act was to validate off-farm SAEs, its

actual wording may have been interpreted by many to de-emphasize the need for SAE programs (Boone, Doerfert, & Elliot, 1987). Whatever the reason, participation in SAE programs, both in the quantity of students served and the quality of experiences, has dramatically changed (Moore, 1979; National Research Council, 1988).

A great deal of research has been conducted pertaining to SAE programs in an effort to aid program partners in conducting effective SAE programs. The purpose of this synthesis was to amass those results and synthesize the findings in a referential manner. Barrick, Hughes, and Baker (1991b) expressed the need for such a compilation and synthesis of past research in order to provide the profession with a basis on which future research efforts could be directed.

Findings presented in this paper are part of a larger study which synthesized published research related to supervised agricultural experience into thirteen major subject areas. The areas were: (1) perceptions, (2) benefits, (3) participation, (4) scope, (5) administration, (6) teacher satisfaction, (7) time requirements, (8) supervision, (9) evaluation, (10) program quality, (11) student and teacher backgrounds, (12) facilities, and (13) FFA/SAE relationships.

Objectives

The primary objective of this investigation was to synthesize research related to participation in supervised agricultural experience programs. A second objective was to identify areas of deficiency in research related to participation in SAE programs.

Procedures

Five sources were used to gather data to meet the objectives of the study: Journal of Agricultural Education, The Journal of the American Association of Teacher Educators in Agriculture, doctoral dissertations from

Dissertation Abstracts International, proceedings from regional and national Agricultural Education Research Meetings, and ERIC Documentation Reproduction Service. Studies appearing in these references were located through a library systems search completed at the University of Illinois and consisted of articles published from 1964 through June, 1993.

Findings

While the National Research Council (1988) recommended that all agriculture students participate in worthwhile SAE programs, research supports the contention that many students do not (Arrington & Cheek, 1990; Arrington & Price, 1983; Berkey & Sutphin, 1984; Iverson, 1980; Miller, 1980; Osborne, 1988b; Penrod, 1985; Vaughn & Cano, 1982; Warren & Flowers, 1992). Penrod (1985) reported that less than 30% of the students in New York State had SAE projects. Kotrlik, Parton, and Leile (1986) found that only slightly over two-thirds (69.2%) of the students in a Louisiana study had SAE programs. Leising and Zilbert (1985) reported that as many as 43% of the students in California had no SAE program. Arrington (1985) found that less than half the students in Florida agriculture classes had been involved in SAE programs for all four years of high school. Teachers in North Carolina estimated that only 58% of their students had SAE programs (Miller, 1980).

By contrast, some studies report a great deal of participation. McCall (1983) reported a high percentage of Colorado students participated in SAE programs. Shelhamer (1984) reported in a Montana study that 67% of the students indicated that they continued their SAEs after graduation. In Areas I and II in Texas, 58% of the agriculture departments reported that every student was involved in an SAE program (Harris & Newcomb, 1985). Stewart and Birkenholz (1991) reported that 86% of agricultural education students in Missouri completed SAE programs in 1988, an increase of 55% over 1982. Bobbitt (1986) reported that 91%

of the students in programs identified as being some of the best in the U.S. were involved in SAE programs.

Some demographic variables affect participation. Arrington (1985) reported that females and racial minorities were inadequately represented in SAE programs in Florida. Bobbitt (1986) found that rural teachers placed more emphasis on SAE programs than did urban teachers. He also reported that older teachers had more students in farm-oriented SAEs, whereas younger teachers had more of their students in land laboratories.

Teacher experience plays a role in student participation. Johnson, Lindhardt, and Stewart (1989) reported that first and second year teachers considered (1) teaching classes, (2) working with FFA activities, (3) conducting SAE programs, and (4) working with SAE records to be their highest priority items. These findings coincided with a ranking by agriculture teachers in a 1979 study conducted by Goode and Stewart (1981). Todd (cited in Barrick, Hughes, & Baker, 1991a) found that beginning teachers and successful experienced teachers viewed their roles similarly, but little relationship existed between beginning teachers' perceptions and their actual performance.

Participation is not as high in specialized programs. Birkenholz (1987) reported that SAE program opportunities were not as numerous in expanded programs (such as horticulture and forestry) as in production agriculture, agribusiness, and agricultural mechanics. Bania (1986) concluded that a lack of SAE participation exists in horticulture classes.

Students do not enter agriculture courses with established SAE programs, nor do they develop them in any one particular year as they progress through the program. Zurbrick (1984) reported that a lack of participation occurs over all four years. Forty percent of the students in the Southern Region enrolled in an agriculture course

lacked an SAE program each year of their enrollment (Iverson, 1980). While 68% of the students in a Florida study had SAEs for at least one year, only 42% continued with SAE programs for four years (Arrington & Price, 1983). However, according to a study conducted by Bell (1985), upper classmen are more likely to participate in an SAE than are new students. He reported that the number of semesters enrolled in agriculture courses strongly affected the students' participation in SAE.

Teacher attitudes toward SAE programs are a key factor in student participation. Research by Arrington and Price (1983), Berkey and Sutphin (1984), Harris and Newcomb (1985), Iverson (1980), and Osborne (1988b) indicated that teachers generally support the concept of SAE programs but that they have great difficulty in implementing this concept with students. Bobbitt (1986) reported that most teachers felt SAE programs were more important today than in the past.

French (1985) reported that teacher expectations strongly influenced students' participation in SAEs. Reneau and Roider (1986) found a significant relationship between the number of students participating in SAEs and teacher attitude. Herren and Cole (1984) reported that teachers in an Oregon study agreed that all students should participate in SAEs. However, teachers were less avid about the need. Herren and Cole also reported that teachers in departments with strong SAE programs emphasize SAEs more than do teachers in departments with weak SAE programs.

Teachers may be growing dissatisfied with conducting SAE programs. A study by Clark (1967) indicated that Michigan agriculture teachers with five or more years of experience listed supervising student programs and summer work as major contributing factors in their decision to remain in teaching. Several years later, however, feelings had neutralized. Knight (1977) found no differences in those who had left the teaching

profession and those remaining in the amount of extra time they devoted to SAE related activities. Griffith (cited in Barrick, et al., 1991a) reported teachers having difficulties in administering SAE programs. Fifteen years after the Clark study, Collins (cited in Barrick, et al., 1991a) reported only moderate satisfaction among Texas teachers working with SAEs. In a 1984 study, Miller and Shield reported that Iowa teachers listed SAEs as the second most difficult subject to teach, just behind adult programs. Teachers listed the most difficult activities as keeping record books and finding time for SAE programs.

There appear to be specific causes for limited participation. Foster (1986) reported that the most important deterrents to student participation were the lack of facilities, student desire, and teacher time for supervision; student dislike for maintaining records; student participation in other school activities; and various economic factors. Lamberth (1986) identified major obstacles to participation as lack of agricultural background or inadequate resources, large student-teacher ratios, and competing school activities. He also reported that most teachers rated the SAE assistance they provided students as inadequate.

Agricultural education teachers are perceived as having the major responsibility for ensuring SAE program success. However, participation by all partners is important to the success of SAE programs (Beeman, 1967; Chyung, 1970; Haynes, 1981). Both administrators and agricultural education teachers perceive the teacher as having the responsibility of helping students maintain records and conducting quality SAE programs (McComas, 1970). Lindsey (cited in Barrick, et al., 1991a) reported that teachers in her study perceived the job of choosing and evaluating student projects for limited opportunity students as being their responsibility.

Many teachers promote the practice of requiring SAE participation. Leising & Zilbert

(1985) reported that participation is highest when teachers require it and a portion of students' grades is derived from SAE projects. Anyadoh and Barrick (1990), Beeman (1967), Gibson (1988), and Johnson (1981), all recommended requiring SAE programs. Rush and Foster (1984) reported that administrators and teachers strongly support requiring SAE programs.

Sutphin and Newcomb (1983) reported that 98% of the respondents in a national survey of agricultural educators and administrators felt that SAE programs should be required of all high school agriculture students. Texas teachers indicated SAE participation should be required of all agricultural production students (Harris & Newcomb, 1985). Beeman (1967) reported that the majority of agricultural education teachers and school administrators in his survey required students to participate in an SAE program. Foster (1986) reported 90% of the instructors sampled in Nebraska required, and received, SAE participation from their students.

While many teachers require participation in SAE programs, others do not. In a study conducted in Tennessee, Lamberth (1986) found that only 35% of the programs required SAE participation. In Illinois, teachers reported that they strongly encouraged students to participate, but that nearly 40% of the agricultural production teachers did not require SAE participation (Osborne, 1988a). Berkey and Sutphin (1984) reported that only 72.5% of the teachers surveyed in New York State required SAE participation by students. In a study of North Carolina teachers, Warren and Flowers (1992) concluded that while most instructors inform students about SAE, the majority do not require participation. Shelhamer (1984) reported that although almost all of the Montana agricultural education teachers in the study reported that they required SAEs, nearly one-half of the students indicated they were not told of the requirement.

Conclusions and Recommendations

Overall, research addressing the problem of participation in SAE programs could best be characterized as primarily descriptive, survey, and nonprogrammatic. No experimental research was found which provided empirical data to suggest that supervised agricultural experience programs are of any educational benefit to students, and thereby warranting their participation. Experimental studies should be conducted to determine the value of SAE programs.

SAE programs lack definition, focus, and direction. In parallel with curricular changes, the focus of SAE programs has changed from a production-oriented program to programs of widely varying scope and agricultural focus. This change of emphasis has created some uncertainties concerning the make-up and administration of SAE programs, resulting in declining participation by both students and teachers. Nationally, a major effort is warranted to identify the mission of SAE and to provide assistance to teachers in integrating SAE into science-oriented and specialty areas of instruction.

While teachers claim to support the concept of SAE, many fail to implement the programs fully, resulting in decreased participation by students. Strategies to involve all partners in SAE programs should be developed and tested.

Participation in SAE programs by all parties is lacking. Although SAE participation is greatest in departments in which it is required, teachers do not agree on the concept of forced participation. A lack of facilities and resources, student motivation, and teacher supervision are major deterrents to student participation. For SAE programs to be successful and effective, all parties involved must make a commitment to success.

SAE participation varies widely by state, and is demographically dependent. Participation is highest in rural areas and among white, male students. Teachers in rural agriculture programs place more emphasis on SAE programs than do

teachers in urban programs. Older teachers sponsor more production-oriented SAE programs, whereas younger teachers sponsor more placement SAE programs. Specialized programs garner less participation than do traditional programs. A major effort should be exerted on a national scale to provide consistent program focus and direction.

Teacher attitudes and expectations strongly influence SAE participation. Even though other factors interfere with student participation, teachers are perceived to be the major reason for SAE program success or failure. However, teachers consider the amount of SAE assistance they provide to students as inadequate. As a result, teacher satisfaction with SAE programs appears to be diminishing. Educators must stop equating SAE programs with record keeping, and recognize them for their value as an experiential learning tool. Inservice education programs designed to reach this end should be implemented.

Conducting SAE programs is a high priority for beginning teachers, but little relationship exists between their perceptions and actual performance. Universities should offer beginning teacher induction programs to aid beginning teachers in developing quality SAE programs.

Research Deficiencies

In analyzing the findings from the synthesis of research pertaining to participation in SAE programs, several areas of deficiency were found. Future researchers should seek to answer the following questions:

1. What is the empirical value of SAE programs?
2. What is the purpose of SAEs? Are they vocational, occupational, supplemental, or experiential as they are utilized by today's agricultural educator?
3. What factors contribute to the variance in

SAE participation by state?

4. What factors aid and/or limit student participation in SAE programs?
5. What methods are most effective in generating student interest/motivation in SAE programs?
6. Which type(s) of program garners the most participation in given demographical settings?
7. Who, or what, most influences a student's decision to participate in SAE programs?
8. Do higher-achieving students receive more/less benefit from participation in SAE programs?
9. What factors influence teachers' decisions to require/not require SAE participation?
10. What problems are associated with SAE program implementation?
11. What factors influence a student's choice of SAE programs?
12. What role should record keeping play in SAE programs, and how does it affect the level of student participation and interest?
13. What SAE programs are most appealing to urban and suburban students?

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