Students' Perceived Importance of the Three-Component Model in Pennsylvania SBAE Programs

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Introduction and Theoretical Framework

School-based agricultural education (SBAE) is comprised of three intra-curricular components: classroom and laboratory instruction, Supervised Agricultural Experiences (SAEs), and FFA (Phipps & Osborne, 1988; Dailey et al., 2001). When these three components of SBAE are integrated together, they can provide "a context for learning necessary content and life skills to prepare students for adulthood, regardless of their ideal career area" (Dailey et al., 2001). Previous research has focused on the interconnectedness and importance of the three-component model of agricultural education and has identified barriers to student involvement in agriculture classes, SAEs, and FFA. However, a gap in the literature exists to understand how students' level of SBAE involvement impacts their perceptions of classroom and laboratory instruction, SAEs, and FFA. The theory of student involvement served as a foundation for this study (Astin, 1984). Researchers used Astin's (1984) theory of student involvement to better understand how students' varying levels of SBAE program involvement impact their perceived importance for each component of the three-component model of agricultural education.

Methodology

The purpose of this descriptive study was to explore students' perceived importance of the three-component model in Pennsylvania high school-based agricultural education programs. This research aligns with AAAE Research Priority 4: Meaningful, Engaged Learning in All Environments, Question 3: "How can delivery of educational programs in agriculture continually evolve to meet the needs and interests of students?" (Roberts et al., 2016). The following research objectives guided this study, 1) describe the sample population in this study by level of SBAE involvement and 2) determine if differences exist between students' perceived level of importance of classroom/laboratory instruction, SAE, and FFA across levels of SBAE program involvement. A paper-pencil questionnaire was designed by the researchers to address the research objectives. The questionnaire consisted of two sections. The first section included Likert-type questions to gauge students' perceived importance of each component of the three-component model of agricultural education. The second section ascertained student demographics. A convenience sample was utilized with three schools representing rural, suburban, and urban programs in Pennsylvania to ensure representation from diverse populations. Students (n = 53) were categorized by their agriculture teachers based on their level of SBAE program involvement (Highly Involved or Limited Involvement) prior to participating in the study. Quantitative data was analyzed using SPSS®.

Results

A total of 53 students completed the questionnaire. 28 students were categorized as "Highly Involved" in a SBAE program, and 25 students were categorized as having "Limited Involvement" in a SBAE program. Both the students categorized as "Highly Involved" (n = 28) and the students categorized as having "Limited Involvement" in a SBAE program (n = 25) had taken an average of four agriculture classes. However, students categorized as "Highly Involved" in a SBAE program, on average, competed in a greater number of CDEs (M = 4, SD = 3), held a greater number of FFA Leadership positions (M = 2, SD = 1), and invested more hours into SAEs (M = 212.1, SD = 220.7) than students categorized as having "Limited Involvement" in a SBAE program. Students' perceptions of the three-component model of agricultural education,

based on level of program involvement, are displayed in Table 1. Students categorized as having "Limited Involvement" in a SBAE program reported significantly lower perceived importance of the FFA (t = 5.22, p = .00, d = 1.43) and SAE (t = 2.09, p = .04, d = .59) components of the three-circle model. No differences were observed in the importance of classroom instruction.

Table 1

Students' Perceived Level of Importance of the Three-component Model of SBAE

SBAE Model Component	Level of SBAE Involvement	*n*	*M*	*SD*	*t*	*p*	*d*
FFA	Highly Involved	28	2.82	.39	5.22	.00*	1.43
	Limited Involvement	22	2.05	.65			
SAE	Highly Involved	28	2.43	.63	2.09	.04*	.59
	Limited Involvement	22	2.05	.65			
Classroom	Highly Involved	28	2.79	.42	.86	.39	
	Limited Involvement	25	2.68	.48			

Note. Scale of Not at all Important (1) to Extremely Important (3)

Conclusions and Recommendations

Students in this sample who were categorized by their agriculture teacher as having "Limited Involvement" in a SBAE program had a lower perceived importance for the FFA and SAE components compared to students categorized as "Highly Involved" in a SBAE program. However, students categorized as "Highly Involved" and students categorized as having "Limited Involvement" both ranked classroom instruction as important. Results indicated that students' level of SBAE program involvement did not impact their perceptions pertaining to the importance of classroom instruction. These results did not align with Astin's (1984) theory of student involvement, as students with varying levels of SBAE involvement had similar positive experiences regarding learning and development within the classroom instruction component. Although the SBAE profession promotes the value of each component of the three-component model of agricultural education (National FFA Organization, 2023), we found that students enrolled in SBAE programs did not equally find value in each of the three components. Why did students in this sample, on average, perceive classroom instruction as important, however, have different perceptions pertaining to the importance of the FFA and SAE components, depending on their level of SBAE involvement? What factors impact students' participation in and perceptions of the FFA and SAE components? According to Martin and Kitchel (2014), the lack of diverse role models in FFA could create a barrier to student participation in the organization. Further, student motivation and student focus are two factors that impact student participation in SAEs (Barrick et al., 1991; Bird et al., 2013; Dyer & Osborne, 1995; Retallick, 2010; Roberts & Harlin, 2007; Rubenstein & Thoron, 2019; Wilson & Moore, 2007). A greater understanding of students' perceptions can help agricultural educators improve student involvement and engagement in the classroom instruction, FFA, and SAE components and further provide opportunities for leadership development, personal growth, and career success (National FFA Organization, 2023). Future qualitative research should be conducted to better understand why some students in this sample perceived the FFA and SAE components as less important than classroom instruction.

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