

Motivating Students to Conduct High-Quality Supervised Agricultural Experience Programs: A Collective Case Study

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Abstract

Supervised Agricultural Experience (SAE) Programs are often regarded to be the most challenging component of the three-circle model of Agricultural Education. The literature reported a strong belief in the philosophy of SAE but a lack of engagement for teachers and students (Retallick, 2010; Wilson & Moore, 2007). This collective case study aims to provide a narrative for how successful teachers motivate students to engage in high-quality SAE programs. The data revealed that within the context of these three cases, requiring SAE as part of a grade, dedication of caring teachers, building SAE programs over time, being flexible in SAE categories, connecting to student interests, and intentional planning were key to successful SAE implementation. These results have implications for how teachers structure SAE programs in their classrooms, how teacher educators prepare pre-service teachers, and the direction of future research in SAE.

Keywords: Supervised Agriculture Experiences, High-Quality SAE, Motivation, Case Study

Introduction

The Supervised Agricultural Experience (SAE) Program is a valued, yet underutilized circle of the three circle model of Agricultural Education (Phipps et al., 2008). Teachers repeatedly reported that time constraints, juggling supervision of many projects, lack of a clear definition of what constitutes a high-quality program, and a stronger pull towards awards-based FFA endeavors limited their success in motivating students to engage in SAE programs (Dyer & Osborne, 1995). However, teachers have continued to preach the philosophical belief in SAE, creating a paradox between theory and practice (Retallick, 2010; Wilson & Moore, 2007). Agricultural educators have reported difficulty implementing SAE in practice even though they have valued it conceptually (Dyer & Osborne, 1995; Retallick, 2010; Wilson & Moore, 2007). This paradox in research and reported practices creates a lack of clarity in what is truly happening in successful Agricultural Education programs in regards to SAE. This divide of philosophy and practice leads us to question how agricultural educators motivate students to develop and implement high quality SAE programs.

The Council for Agricultural Education identified four factors to consider when determining a student's SAE is "high-quality" (NCAE, 2015). The four factors were: (a) the project must be well-planned, documented, and supervised, (b) the program must be agriculturally-focused, (c) the program should be student-driven rather than teacher-driven, and (d) the program should happen outside of regular classroom instruction (NCAE, 2015). The majority of Agricultural Education research was found by Dyer et al. (2003) to be quantitative in nature, using applied research methods. This collective case study aims to provide a rich narrative describing the phenomenon of student motivation to develop a well-structured SAE program, a need that was suggested by Dooley (2007).

Theoretical Framework

This research was grounded in the theoretical framework of *achievement motivation*. Achievement motivation refers to “striving to be competent in effortful activities” (Elliot & Church, as cited by Schunk, 2012, p. 358). The theory posits that individuals are motivated to act because of a desire to satisfy a need (Schunk, 2012). Under the umbrella of achievement motivation, Atkinson (1957) developed the *expectancy-value theory of achievement*. This theory suggests that an individual’s behavior is dictated by their expectancy of achieving a goal or reinforcer as a result of performing a certain task or behavior relative to how much one values the outcome (Schunk, 2012).

According to Atkinson (1957), achievement motivation, is a stable character trait of an individual. Atkinson postulates that tasks that are difficult to achieve create a greater incentive to work hard at the task. This is motivated by pride at accomplishing difficult tasks (Schunk, 2012). This model makes the prediction that students with high achievement motivation will choose tasks of intermediate difficulty because of their belief in its attainability, which produces a sense of accomplishment (Schunk, 2012). For these students, tasks deemed as too difficult will be avoided because of the unlikely probability of success, while tasks deemed as too easy will provide little sense of accomplishment when achieved. In contrast, students with low achievement motivation tend to choose easy or difficult tasks (Schunk, 2012).

There are likely numerous motivational explanations for student involvement in high-quality SAE programs. In order for teachers to be able to implement SAE programs with efficacy, understanding these motivations is crucial. If teachers can begin to understand how to influence the *expectancy-value theory of achievement motivation* on student SAE engagement, as well as manipulate it, SAE achievement could increase. This study aims to provide a narrative

through the lens of achievement motivation about how and why students are motivated to engage in high-quality SAE programs. Specifically, this study aims to provide insight to how teachers can influence a student's tendency to approach an achievement-related goal.

Purpose

The purpose of this study was to investigate how teachers motivate students in Agricultural Education programs to conduct high-quality SAE programs. This collective case study analysis of how agricultural educators implement SAE in [State] sought to answer the following questions:

1. What factors influence a teachers ability to implement SAE within their Agricultural Education programs?
2. How do teachers motivate students to participate in high-quality SAE programs?

Methods

This research follows a case study model as described by Yin (2014). A case study is one of the most frequently used methodologies in qualitative research. However, given the unique approach of case study research, it does not have a well-defined set of protocols. A case study defines a case as a contemporary phenomenon within its real-life context, whether it be simple or complex in nature (Stake, 2013; Yin, 2014). All cases are defined by the individual teacher in each program and all programs and teachers are unique to the community in which they are located.

Participants

The researchers contacted Agricultural Education State Staff in each of the three agricultural education regions to nominate teachers who they believed conducted high-quality SAE programs as defined by the National Council for Agricultural Education (2015). The

qualifications were a well-planned, documented, and supervised program, a program that is agricultural in nature, is student driven, and occurs outside of traditional classroom instruction. Once nominations were received, nominees were contacted via email to complete an eight-question survey instrument that was used for determining their fit for the study. Once the survey was completed, the responses were reviewed by the research committee to determine if each individual nominated met the outlined criteria for conducting high-quality SAE programs.

Data Collection

The teachers who met the criteria were sought after for permission and acceptance to participate in the interview. Two teachers were interviewed through an online video conference software, Google Hangouts while one teacher was interviewed face-to-face. The interviews followed a semi-structured interview format focusing on the individual teacher's philosophy regarding SAE, how SAE was implemented in their programs, and what they believe motivated student to conduct high-quality SAE programs. All interviews lasted between 33 and 59 minutes where teachers engaged in a conversational interview environment where they freely shared their thoughts about incorporating SAE into their programs. Interviews were recorded and transcribed for analysis using Temi, an online transcription service. The lead researcher reviewed each transcript for accuracy. During transcription, all participants were given a pseudonym and any other identifiers removed to ensure anonymity was maintained. Weft QDA, a digital qualitative analysis software, was used to code for themes.

To ensure cross-case analysis, Lincoln and Guba's (1985) constant comparative method was utilized. After initial individual analysis, researchers met to discuss findings and compare perspectives. The final themes were shared with the participants to ensure triangulation of the data through member checking and peer debriefing. During this study researchers kept

methodological journals to document methodology decisions and reflection to ensure reliability and trustworthiness (Dooley, 2007). In order to establish trustworthiness and rigor, the researchers engaged in prolonged engagement, thick descriptions, and reflexivity (Lincoln & Guba, 1985).

Subjectivity Statement

The researchers were actively involved in agricultural education and believe that SAE is an integral and valuable component of the Agricultural Education model. Having engaged in an SAE as a student as well as fully incorporating SAE programs into their Agricultural Education programs, the researchers believe that all teachers should have every student engaging in an SAE program. The researcher has developed a model for SAE in an urban setting and shared that model with other teachers through professional development workshops.

Findings

Case Study 1: Setting the Context

Ms. Jennifer Roberts excitedly introduced herself, her background, and her teaching career. She came from an Agricultural Education background, having been a student in a strong program with “great teachers” before making the choice to become an agricultural educator. She taught approximately 170 students in an area she defined as somewhere in between suburban and rural in [State]. All students in her program were required to conduct and maintain a SAE program as part of their grade in her classroom. Ms. Roberts taught in a single-teacher program with approximately 1,400 students enrolled at the high school.

Connecting to student interests

She admitted not all students who enter her classroom have an intrinsic interest in agriculture or plan to pursue agriculture as a career after graduation. However, she expressed her

strong belief that teachers must take the time to connect agriculture to student interest to assist them in developing their SAE. Ms. Roberts shared, “I have students who are in art, we've got to figure out a way to tie your art in with agriculture, we need to be able to tie in every student, doesn't necessarily have to be the typical ag kids.”

By connecting students who are otherwise uninterested in agriculture to SAE programs that meet their needs, Ms. Roberts believed she was able to show students an elevated level of caring. Ms. Roberts noted, “maybe they're (SAE) supposed to be more traditional, but I don't think the student is traditional anymore. So, I don't think that she has to be ... sometimes you got a gamer kid. You got to figure out something else that they like.” Beyond this, Ms. Roberts explained that perhaps the entire point of SAE is to tie in non-traditional students with a learning opportunity directly connected to agriculture. The best part of SAE programs, to her, was having the opportunity to observe what students can do in agriculture when motivated by an SAE program directly connected to their interests. Ms. Roberts firmly believed, “with student driven and non-traditional kids, I think the really cool part about an SAE is that if I was told that was my homework project and then I could choose what it was, I think I probably would've liked homework.” Although Ms. Roberts discussed connecting non-traditional students to SAE frequently, she did not discount the importance of SAE programs for students who may already have an interest in agriculture or may be conducting a project at home that resembles an SAE. The important thing to her was taking the students' projects to the next level to further expand student opportunities and learning in something they already had as an interest. Ms. Roberts stated, “if you have a kid who already does something in wildlife, the only difference in your project now is we want to develop it with record keeping skills ... let's add your expenses, inventory, income, and your time.”

Extending learning outside of the classroom through career connection

As Ms. Roberts discussed how she motivated students to engage in high-quality SAE programs, multiple times she brought the conversation back to taking student learning beyond the classroom and connecting SAE programs to student career interests. She explained how students were often more motivated to engage in an SAE if they were given the opportunity to explore career areas in which they were interested. For some students, it was about discovering a career they did not even know they enjoyed. For others, it was about discovering new areas within a career interest. Ms. Roberts excitedly shared, “what's really fulfilling as a teacher is watching them take that even farther. Because there are those that do they make a career out of it. That's what's cool. You know, I don't know that it's always great.” This was the case even with non-agriculture related careers. Ms. Roberts gives the example of a student who wants to be a Pre-K teacher. Ms. Roberts discussed setting her up with a local Pre-K teacher to come up with agricultural lessons to teach her students. Mrs. Roberts added, “if a kid says, I wanted to take agriculture because I like it, but I really want to be a Pre-K teacher. I've got some Pre-K teachers and kindergarten teachers who would love for you to come and teach lessons.”

Case Study 2: Setting the Context

Ms. Lindsey Carter taught in a high school outside of a major metropolitan area in [State]. The community, on paper, was considered urban; however, agriculture and farming were still major pillars of the community, with strong agricultural education programs throughout the county. Ms. Carter teaches approximately 120 students in a high school over with 1,400 students. Ms. Carter excitedly discussed how she incorporated SAE in her classes while also vocalizing ideas she has to make her program even better. Her desire to improve does not end with her ideas for SAE, as she is currently working on her doctorate degree while teaching full-time and raising

two children. She was willing to share ideas and resources without ever suggesting she is the one with all of the answers.

Breaking from traditional views of SAE programs

While she was a firm supporter of agriculture, and believed that students who continue in her program should have agricultural focused SAE programs, she also believed some leniency was needed to help meet students where they were in their interests and career goals. Ms. Carter shared, “some teachers are determined they don't want kids working at fast food. They don't want them babysitting. I'm okay with it, that first year it's about learning what you want to do, don't want to do, and keeping records.” Ms. Carter was not afraid to challenge the status quo and critique the norms that had been put in place for SAE programs. Her belief in helping students achieve success through SAE programs in any way she can allowed her to remain flexible yet keep standards high. Ms. Carter passionately shared, “I've got to meet my kids where they are and sometimes the powers that be may think, oh well that's not qualified to be a state degree. It is all that this kid could do and they need to be rewarded.”

Building student SAE programs over time

Much of the interview with Ms. Carter was focused on the early stages of establishing high-quality SAE programs with first year students. The steps she took to set the foundation for these programs was of high-importance, and something she believed was key to the success of her students' SAE programs. Ms. Carter would ask students, “Well what can you do? What's an idea? What does your parents do? You know, like is there a job that they have that you can go and hang out with them? What do you want to do when you grow up?” Ms. Carter maintained that by planning to build over time and setting a solid foundation in the introductory level classes, she could step back and allow the students to continue in their SAE on their own. Ms.

Carter noted, “so at the beginning when we first started it, I pound record keeping in their head, like we log in to AET (Agricultural Experience Tracker) a once a week and I show them how to log their hours and then we do checkpoints.”

Setting high expectations

Ms. Carter required that 100% of her students completed an SAE program as part of the class grade. Although this took a vast amount of work to grade and assist students, she refused to allow students to turn in something that was below their ability. Ms. Carter would tell student “if you're not going to do a genuine project, please don't waste my time and I want it to be genuine and if you can't come up with something that is genuine then let's find something.” As Ms. Carter discussed working with her students to build SAE programs, it was clear that she cared deeply for them. This care served as a strong motivator for students to do well in their SAE programs and reach the expectations put before them. Ms. Carter shared, “some of my students are so invested in the program and in, in me and they want to impress me. They want to do good for me. They, they want to reach whatever standard that I put for them.”

Career skills

Ms. Carter expressed her prioritization of connecting students to opportunities that promoted career knowledge and skill. She believed the experience students gained from a high-quality SAE program opened the door for students to enter a job market that was often difficult to infiltrate without prior experience. Ms. Carter believed, “it's more about two things, giving them the opportunity to get a skill so that they can hopefully get a job. And get some type of experience to get the job.” In addition to this, Ms. Carter also finds SAE to be a valuable opportunity for students to gain opportunities about the careers they are interested in before they make a commitment to pursue a specific field. She finds that through being able to go to a

veterinarian's office and shadowing the day-to-day operations, or doing landscaping for a summer job, students can learn the realities of those jobs to decide whether or not the job is right for them. These experiences, can allow students to figure out if the career goals they have are right for them. Ms. Carter stated, for example students who “want to be a veterinarian and they go and they shadow so then when they get to vet school it’s not such a shock that they have to know Latin terms or such a shock that these are the equipment.”

Case Study 3: Setting the Context

Mr. Jeff Thompson was a veteran teacher who taught middle school agriculture for nearly two decades before moving to high school agriculture for the last seven years. Mr. Thompson taught in a two-teacher Agricultural Education program, with agricultural mechanics being the primary pathway of focus. Between the two teachers at Mr. Thompson’s school, 298 agricultural education students were served among a population of 1,200 students. All students in the program were required to develop and maintain a SAE program. When speaking with Mr. Thompson, the typically subdued teacher exuded excitement about SAE programs. This excitement showcased his passion for SAE programs, and his philosophies were clear in the interview.

Well-planned

As Mr. Thompson spoke about how students engage in SAE programs in his program, nearly every interview question prompted him to mention the importance of planning in a successful, high-quality SAE project. He referred to this not only in the beginning planning stages of student SAE programs but also in building the SAE programs over time. Mr. Thompson firmly believed, “we can't just do it for a week or two and be done, but we've got to go back, check and balances. We've got to have a plan, we got to follow up with the plan.” He

credited student success in SAE to spending the time to have students plan their SAE programs when they begin. This includes goals, steps in the process, and developing a benchmark for the students to be able to know whether or not they accomplished their goals. Mr. Thompson added, “if they can't see the end result, they're not going to buy into it. They got to say, okay, I'll do this idea, this might work.”

Building from student interest

Student interest in their SAE programs was also an important factor in Mr. Thompson's students' success. He stated the importance of doing more than just making it a required portion of their classroom grade to shift the SAE to high-quality. Mr. Thompson added, “so it's going to be something that they're interested in. It's got to be something that gains their interest long term, can't just be something Ima grade it and it goes away.” By connecting his students with SAE programs that tap into their interests, Mr. Thompson believes he can show his students what possibilities are out there for starting a career that relates to their interests. This connection allows students to dive deeper into their SAE and develop important soft skills. Mr. Thompson shared, “it's valuable because it gives the kids the hands-on experience that you cannot really teach in class. ... It lets them see the real-world application of what they're interested in.”

Influence of technological advancement

Mr. Thompson reported the impact of new recordkeeping abilities and structure through the AET. The resource, Mr. Thompson shared, allowed students to continue to think about and work on their SAE programs in a way they had not before. Mr. Thompson shared, “the AET program keeps it in front of them, they have to plan it and follow through because it's on paper, it's on the computer and hopefully next year they can pick up where they left off and continue growing their project.” Mr. Thompson also expressed the impact AET on the number of students

who turn in their SAE projects each year, and how it has changed how intentional he as well as his students have been in the SAE planning and implementation process. Mr. Thompson stated, “if you're going to have the SAE projects, you've got to be intentional. My projects have gotten better as a result of AET record keeping. I've got more kids participating, turning projects in.”

Conclusions

Based on these case study findings, there were broad themes that come forth in a cross-case analysis. Although the information presented in this case study is useful, it is important to note that generalizations should not be made beyond the scope of the three cases.

Caring, dedicated teachers

The three teachers each expressed a genuine interest in engaging students in SAE programs because they believed it was a worthwhile and valuable experience for students. The teachers interviewed expressed how much they valued the career skills, personal development, and experience students gained in their SAE programs. The influence of agricultural educators has been suggested time and time again to be a critical component of successful SAE programs (Dyer & Osborne, 1995; Philipps et al., 2008; Retallick, 2010; Rubenstein et al., 2014).

Mandating SAE as part of a classroom grade

Each of the three educators interviewed required SAE programs as part of their classroom grade. This finding was supported by research from Rubenstein and Thoron (2015). This practice was a crucial piece for rebuilding SAE programs and helping students gain the important skills from SAE. In order to accomplish this feat, all of the subjects reported taking the time to allow students to express their interests and future goals at the beginning of the planning process, and helped students develop an SAE that connected to those interests and goals. This allowed the students to receive the grade they desired while simultaneously gaining critical skills and

experiences through their SAEs. By receiving a grade for their SAE, students are driven to be successful due to their need to strive for competence within their SAE program, further supporting achievement motivation as a foundational element to SAE program implementation.

Connection to student career interests and goals

Regardless of whether or not students wanted to go into an agriculturally-related career, all three teachers worked to connect student SAE programs to their future careers. This connection may come through a very specific skills, such as welding or 21st century skill acquisition that students gain through conducting a high-quality SAE program. It has been reported that student interest in SAE programs has contributed to success throughout the history of Agricultural Education (Bird et al., 2013). This conclusion aligns with the work of Atkinson (1957) in expectancy-value, where students are dictated by their expected success of achieving a goal they set for themselves at the beginning of an SAE program.

Flexibility within SAE

Retallick (2010) reported teachers believed the agricultural education system, FFA award system and SAE categories caused issues with the implementation of SAE. All three teachers in this study expressed the need to make connections to student interests and, at times, stretch what might be considered a true SAE. Nonetheless, the teachers vocalized how these projects were still providing students with the same important skills all SAE should provide. While clear themes exist, it appears that all teachers must make informed decisions based upon their own community and program to ensure that SAE continues to thrive.

In order to increase the motivation of students to engage in SAE programs the following recommendations are made for teachers:

1. Provide time in class to plan, design, implement, and record SAE programs,

2. Give students the opportunity to express and match SAE programs to their interests,
3. Require SAE programs as part of the classroom grade,
4. Take the time to connect student interests to agriculture, even if not directly related, and,
5. Reformat FFA award structures to recognize outstanding student SAE that may not fit in a traditional category.

This study brought to light many critical components of motivating students to conduct high-quality SAE Programs. The following are recommendations for future research:

1. Increase the amount of case studies being done to provide a rich narrative of SAE implementation,
2. Conduct research directly with students on their motivations to start and continue with SAE,
3. Study the practices of teacher preparation programs and how they prepare preservice teachers for SAE, and,
4. Investigate the value of reported career skills gained through SAE programs.

In addition to teachers and additional research studies, the following recommendation are for teacher education programs:

1. Perservice teachers need to engage in an SAE program in college to better understand the requirements they are setting for their students,
2. Teacher educators should plan for instruction in SAE to be a core component of their teacher preparation program, and,
3. Preservice teachers should be expected to visit agricultural education programs to see how inservice teachers are conducting high quality SAE program visits.

References

- Bird, W., Martin, M. J., & Simonsen, J. C. (2013). Student motivation for involvement in supervised agricultural experiences: A historical perspective. *Journal of Agricultural Education* 58(1), 31-46. <https://doi.org/10.5032/jae.2013.01031>.
- Croom, D. (2008). The development of the integrated three-component model of agricultural education. *Journal of Agricultural Education*, 49(1), 110-120. <https://doi.org/10.5032/jae.200801110>.
- Dooley, K. E. (2007). Viewing agricultural education research through a qualitative lens. *Journal of Agricultural Education*, 48(4), 32-42. <https://doi.org/10.5032/jae.2007.04032>.
- Dyer, J. E., Hasse-Wittler, P. S. & Washburn, S. G. (2003). Structuring agricultural education research using conceptual and theoretical frameworks. *Journal of Agricultural Education*, 44(2), 61-74.
- Dyer, J. E., & Osborne, E. W. (1995). Participation in supervised agricultural experience programs: synthesis of research. *Journal of Agricultural Education*, 36(1), 6-14. <https://doi.org/10.5032/jae.1995.01006>.
- Dyer, J. E., & Osborne, E. W. (1996). Developing a model for supervised agricultural experience program quality: A synthesis of research. *Journal of Agricultural Education*. 37(2), 24-33.
- Dyer, J. E., & Williams, D. L. (1997). Benefits of supervised agricultural experience programs: a synthesis of research. *Journal of Agricultural Education*, 38(4), 50-58. <https://doi.org/10.5032/jae.1997.04.050>.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- National Council for Agricultural Education. (2015). Philosophy and guiding principles for execution of the supervised agricultural experience component of the school based

agricultural education Program. Retrieved from:

https://www.ffa.org/SiteCollectionDocuments/sae_guiding_principles.pdf.

Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. (2008). *Handbook on agricultural education in public schools* (6th ed.). Thompson Delmar Learning.

Retallick, M. C. (2010). Implementation of supervised agricultural experience programs: The agricultural educators' perspective. *Journal of Agricultural Education, 51*(4), 59-70.
<https://doi.org/10.5031/jae.2010.04059>.

Roberts, T. G., Dooley, K. E., Harlin, J. F., & Murphrey, T. P. (2007). Competencies and traits of successful agricultural science teachers. *Journal of Career and Technical Education, 22*(2), 6-17. Retrieved from: <https://ejournals.lib.vt.edu/index.php/JCTE/article/view/455/399>.

Rubenstein, E. D., Thoron, A. C., Conclasure, B. C., Gordon, J. A. (2016). Supervised agricultural experience programs: An examination of the development and implementation of urban programs. *Journal of Agricultural Education, 57*(4), 217-233.
<https://doi.org/10.5032/jae.2016.04217>.

Rubenstein, E. D., & Thoron, A. C. (2014). Successful supervised agricultural experience programs as defined by American FFA degree star finalists. *Journal of Agricultural Education, 55*(3), 162-174. <https://doi.org/10.5032/jae.2014.03162>.

Rubenstein, E. D., Thoron, A. C., & Estep, C. M. (2014). Perceived self-efficacy of preservice agriculture teachers toward specific SAE competencies. *Journal of Agricultural Education, 55*(4), 72-84. <https://doi.org/10.5032/jae.2014.04072>.

Schunk, D.H. (2012). *Learning theories: An educational perspective*. Pearson Education, Inc.

Stake, R. (2013). *The art of case study research* (pp. 49-68). Sage Publications.

Wilson, E. B., & Moore, G. E. (2007). Exploring the paradox of supervised agricultural experience programs in agriculture education. *Journal of Agricultural Education*, 48(4), 82-92. <https://doi.org/10.5032/jae.2007.04082>.

Yin, R. K. (2003). *Case study research: Design and methods*. Sage Publications.