

15 Year Synthesis of SAE Research

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A 15-Year Synthesis of Research Focusing on Supervised Agricultural Experiences

Introduction/Need for Study/Relevant Literature

The most learner-centered portion of the three-circle Agricultural Education model is the Supervised Agricultural Experience work-based learning component. This component is where students explore their own interests, creating a career-centered experience that aligns with their interests and career goals and is supported by their agriculture teacher(s). This study is a synthesis of research related to supervised agricultural experiences (SAE's) that have been conducted over the last 15 years. This study works to identify what we know about SAEs from both the teacher and student perspectives. As time evolves, the concepts taught also need to develop to meet the needs of students today. The concept of supervised agricultural experiences (SAE) originally began as home projects from an idea by Rufus Stimson. The idea has evolved into what it is today, thanks to educators who continue to explore learner-centered, individualized experiences related to agriculture and careers.

Conceptual/Theoretical Framework

First rooted in home projects by Rufus Stimson, has now evolved into a modernized philosophy of "SAE for All" (The Council, 2023). The study's purpose was to find where in SAE's more research needed to be done. This was accomplished using a synthesis to see what research has been published from 2010-2025. The foundation of SAE's aligns with Harrington and DeBruler's (2019) student-centered learning model, allowing for student voice, choice, competency progression, and is continuously monitored by their agriculture teacher.

Methods

The study was guided by the following research questions; RQ 1: Identify SAE-focused research from 2010-2025, including research on agriculture work-based learning experiences (SAE's) from the student and teacher perspectives. Excluding awards/recognition, pre-service educators, and international studies. RQ 2: Summarize student SAE experiences from the identified studies. RQ 3: Summarize teacher SAE experiences from the identified studies.

Through the utilization of Meta-Narrative Synthesis (Schick-Makaroff, et al.), the research steps were created. First is the planning phase, where a broad question was outlined. For this project, the broad question was "Where are there gaps in supervised agricultural experiences research?" The second step is the search phase, where reviewing literature and guidelines were applied. Guidelines for this project were accessing articles online journals, dates within January 1st, 2010, to January 31st, 2025, and restricting material to exclude articles only focused on awards/recognition, pre-service education of agriculture educators, and international studies, which fell outside our research question. Articles were gathered through the Journal of Agricultural Education (JAE) utilizing the search for "supervised agricultural experience" and then using the sorting criteria to determine relevant articles for this study. The third step includes the mapping phase, where key elements were identified by a broad research analysis of articles used for the literature review. For the mapping phase, a handwritten mind map was used to organize main themes and important notes. The fourth step is the appraisal phase, where articles are screened a second time for relevance to the study and grouped into categories. The articles were uploaded to the Notability App, where important concepts and quotes were highlighted, and notes were made. Step five is the synthesis phase, in which key issues were identified and explained. Articles were categorized based on the main concepts. The final step was summarizing overall messages and evidence. By using a handwritten mind map where big-picture ideas were written, research deficiencies surfaced (Schick-Makaroff, et al.).

Results/Findings/Implications

For students to participate and learn about SAEs, it begins with the educator in the classroom. How SAEs are taught impacts how they are started and whether students participate in them at all. “The agriculture teacher was the most important program partner in the development of an SAE program.” (Rubenstein & Thoron, 2025). Educators lay the foundation for students to begin their own SAE. “An increase in a student’s knowledge and awareness of SAE could positively influence their participation” (Lewis et al., 2012b). Research found that students who lacked a solid base of knowledge struggled or failed to begin SAEs.

RQ1: The 26 articles selected from the Journal of Agricultural Education were then categorized based on the main theme/content shown and organized within five-year increments.

RQ2: These student-centered learning experiences give students opportunities to try things they would not have otherwise had the opportunity to try. “Class time for students to be able to work on their record books and ask the teacher specific questions for their program.” (Rubenstein et al., 2016). A barrier related to SAEs for students can be time, and using the time they have in school would be a way to limit that barrier. However, a very enticing part of SAEs is the ability for them to be unique. “Individualization. Many students seemed to think that their teachers offered individual attention and advice” (Heinert & Roberts, 2017). Allowing students to choose their experience allows students to lead their learning. Educators play an integral role in developing students; for agricultural educators, they also help students develop their own SAEs. “Implementation of a Supervised Agricultural Experience has a greater influence on a student’s career decision than other portions of the SAE program.” (Romberger et al., 2025). For students preparing for the next phase of life, SAEs become a critical part of exposing students to opportunities and careers. “When students realize the benefit or value of how their SAE program can impact their lives, they are more willing to participate.” (Robinson & Haynes, 2011). This concept needs to be shared so people know the benefits of individual learning experiences.

RQ3: Three barriers are a consistent struggle for agriculture education students and educators: money, motivation, and time. These make SAEs difficult to begin or manage consistently. “Researchers have suggested declining SAE involvement is partly attributed to a lack of student motivation for SAE participation.” (Bird et al., 2013). Student motivation is a part of SAE that is not researched frequently. The framework of SAE for All is to allow every student enrolled in agriculture education to have their own individual SAEs, regardless of barriers. This initiative's objective is “100% engagement in SAE for all SBAE students” (Thiel et al.). The issue with this program is consistently how to reach students. However, students and educators don’t understand guidelines and requirements. “Participants do not have a complete understanding of the guidelines, leading participants to advise students to categorize their SAEs based on their knowledge of previous SAE categories.” (Ford et al., 2025). Education needs to occur more frequently about SAE for All.

Conclusion/Implications/Recommendations

If researchers and educators reconnect with the foundational purpose of SAEs, and further complement them with additional learner-centered teaching theories, we can help pave the way for the future that is necessary for the success of students in agriculture education. Recommendations include continuing research about SAEs should emphasize: School-Based SAEs, Service-Learning SAEs, SAE for All implementation, instruction of SAE to students enrolled in agriculture education, professional development in the area of SAE, outside support of SAE, middle-grade SAE integration, as well as focus on students' perspectives.

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