

Understanding the SAE for All Experience for North Carolina Teachers

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Abstract

SAE for All was introduced by the National Council for Agricultural Education as an innovative model of implementing Supervised Agricultural Experience instruction and better serving all students in School-Based Agricultural Education. States have varied on whether and how they have pushed forward the new model for teachers. In North Carolina, the model was rolled out through statewide professional development in 2019 and subsequently integrated into the curriculum. We sought to understand usage of SAE for All by teachers as of spring/summer 2022. This study utilized qualitative interviews with thirteen teachers with various educational backgrounds, single and multi-teacher programs, years of experience, and across those who taught in middle and high schools as well as urban, rural and suburban communities in an attempt to understand their implementation of SAE for All. Three themes were constructed: SAE for All usage, teacher intention, and implementation roadblocks, each including multiple codes. Suggestions for how various stakeholder groups can influence implementation are provided.

Introduction and Review of Literature

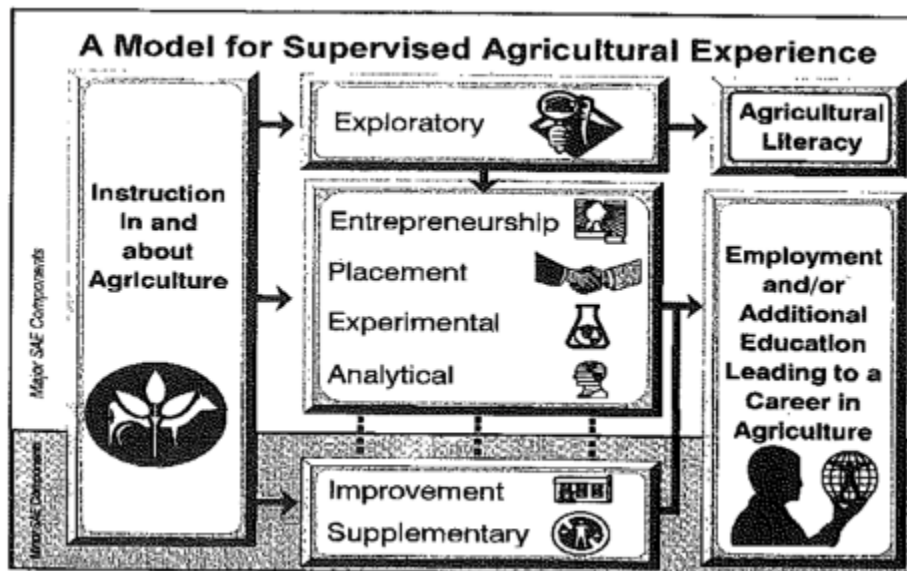
Supervised Agricultural Experience (SAE) is a work-based learning program for students in School-Based Agricultural Education (SBAE) and is one of the three major components of agricultural education (The Council, n.d.). This portion of SBAE is often credited to Stimson's (1919) home project for farm boys in vocational agriculture classes (Croom, 2008; Moore, 1988; Smith & Rayfield, 2016). Since the early 1990s, SBAE teachers have been implementing an "expanded model for SAE" (Moore & Flowers, 1993, p.18), which offered students seven types of SAEs and had two possible outcomes, (1) agricultural literacy or (2) connection to an agricultural career (Moore & Flowers, 1993). See Figure 1.

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Figure 1

The Moore and Flowers (1993) SAE Model



Note: Adapted from the July 1993 edition of the *Agricultural Education Magazine* (Moore & Flowers, 1993).

Unfortunately, as SBAE and SAE have evolved, SAEs have not maintained usage among all SBAE teachers (Marzolino & McKim, 2024; Rank & Retallick, 2016; Steele, 1997; Wilson & Moore, 2007). Admittedly, teachers are not incorporating SAE in their programs or not requiring all students to maintain an SAE (Lewis et al., 2012; Steele, 1997; Wilson & Moore, 2007). Even though SAE has been reported as not fully practiced in SBAE programs, SAE is still touted by the same teachers as highly valuable for students (Dyer & Osborne, 1995; Retallick, 2010; Wilson & Moore, 2007). For some SBAE programs, it has been seen that FFA awards and degrees have been driving what is happening in the classroom with SAE (Bird et al., 2013; Ford & Lambert, 2025; Rubenstein & Thoron, 2019). Opportunities such as building technical and life skills, encouraging positive relationships, and helping students prepare for their future careers are all considered highly valuable benefits of SAE participation (Ramsey & Edwards, 2012; Rank & Retallick, 2016; Retallick, 2010; Rubenstein & Thoron, 2019; Talbert et al., 2022).

Teachers serve as the guiding force on SAE implementation in a SBAE program, influencing student requirements and expectations of SAE (Bryant et al., 2022; Osborne, 1988; Rank & Retallick, 2016; Rubenstein & Thoron, 2015; Rubenstein et al., 2023; Swortzel, 1996; Talbert et al., 2022). The National Council for Agricultural Education (The Council) specifically addressed time, student enrollment, agricultural background, resources, administrative support, and understanding of SAE as perceived barriers for SAE implementation (The Council, n.d.). In an effort to combat these perceived barriers, addressing the need for a clearer purpose and guidance for SAE has been called on through research (Doss & Rayfield, 2019; Dyer & Osborne, 1995; Retallick, 2010; Wilson & Moore, 2007).

The Council formed a committee in 2011 to redesign Moore and Flowers' (1993) SAE model to be more accessible and attainable for all SBAE teachers and students (The Council, n.d.). The SAE for All philosophy addressed this need and was adopted in 2015 (The Council, 2015). The SAE for All model redefined SAE to be "a student-led, instructor supervised, work-based learning

experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to a career plan of study” (The Council, 2017b, p. 2), aligning the purpose of SAE with the needs of today’s SBAE students.

The SAE for All model (see Figure 2) requires all students to complete an individualized Foundational SAE that progresses through five areas of learning: (1) career exploration and planning, (2) employability skills for college and career readiness, (3) personal financial management and planning (4) workplace safety, and (5) agricultural literacy (The Council, 2017b). Following initial establishment of a Foundational SAE, students can then complete an Immersion SAE by extending their learning from the agricultural literacy Foundational SAE component through authentic experiences within one of five categories including (1) Placement/Internship, (2) Ownership/Entrepreneurship, (3) Research: Experimental, Analysis, or Invention, (4) School-Based Enterprise, and (5) Service Learning (The Council, 2017b). Immersion SAEs most closely align with the types of SAEs available through the Moore and Flowers (1993) SAE model with a few additions to better meet the needs of the current SBAE student.

Figure 2

Roadmap of the SAE for All Model



Note. Adapted from the *SAE for All Teacher Guide* (The Council, 2017b).

Professional development for SBAE teachers related to SAE for All has been offered on the national level through workshops at the National Association for Agricultural Education (NAAE) Convention since 2015, Teacher Workshops at National FFA Convention, SAE for All Train-the-Trainer events, and more within individual states (M. Kreifels, Personal Communication, May 2023). SAE for All implementation guides for both teachers and students were created and

disseminated online beginning in 2017 (SAE for All, n.d.). The SAE for All guides (The Council, 2017a; 2017b) contain resources for teaching about SAE for All, worksheets and activities for students to complete Foundational SAEs, and best practice recommendations for implementation. Despite the communication and availability of high-quality implementation resources, SBAE teachers have been slow to learn and implement SAE for All in their programs (Doss & Rayfield, 2019; Ford & Lambert, 2025). Unsurprisingly, implementation of new practices has historically plagued the acceptance of new SAE models (Dyer & Osborne, 1996).

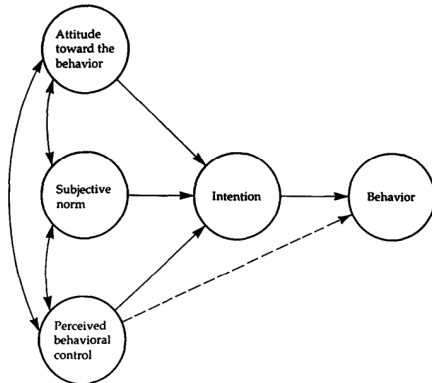
In North Carolina, terminology was updated in the state curriculum in 2018 and the SAE for All model was rolled out at the statewide Career and Technical Education Summer Conference in July 2019 (J. Bledsoe, NC State Director of Agricultural Education, Personal communication, October 2022). The Agricultural Experience Tracker (AET) is also purchased for all SBAE programs in North Carolina for SAE recordkeeping (J. Bledsoe, NC State Director of Agricultural Education, Personal communication, October 2022). AET is the premier SAE recordkeeping system, with 78% of SBAE programs having access to the system (Hanagriff, 2024). During the 2019-2020 school year, the COVID-19 pandemic caused a sudden shift to remote learning in the majority of public schools in the United States (NCES, 2022). Since North Carolina SBAE teachers have been expected to utilize SAE for All for multiple years, including a period of remote or hybrid learning, there is a need to understand SAE for All usage by teachers in their SBAE programs.

Theoretical Framework

This study was guided by Ajzen's (1991) theory of planned behavior (see Figure 3). The theory has three main predictors of a person's intention and behavior: attitude toward the behavior, subjective norms, and perceived behavioral control.

Figure 3

Model of the theory of planned behavior



Note: Adapted from *The Theory of Planned Behavior* (Ajzen, 1991).

Within the context of this study, teacher behavioral intentions are impacted by the attitude teachers have not only toward SAE as a component of the agricultural education model in general, but also the new SAE for All model. Teacher behaviors are also impacted by subjective norms, which is how a person perceives their community and those around them expect them to behave. SBAE teachers operate not only in their classroom, school, and local community, but also within a larger community of SBAE teachers. As statewide rollout occurs through professional development activities and statewide curriculum modifications, SBAE teachers are receiving information about

how others see the need for them to include SAE in their program and to implement change as it relates to the new model.

Teachers are also working within their perceived control when it comes to SAE for All implementation. Implementation of the new model will proceed as long as they feel they have the ability to be successful and as long as they are not prevented from acting on their desired behavior by outside forces beyond their control. Within a school, this could include administration, parents, students, other teachers as well as forces within the teachers' personal life.

Purpose and Objective

The purpose of this qualitative study was to explore SAE for All implementation among SBAE teachers in North Carolina. In this research, SAE for All implementation was generally defined as using the SAE for All model and guides created by The Council with students. The research study sought to understand SAE for All usage in North Carolina.

Methods

Our participants were experiencing SAE for All as a state-adopted model, rolled out in the state in 2019. We anticipated a shift to SAE for All should have been happening across the state at the time data was collected in 2022. Qualitative research is utilized when there is little known about the subject being studied (Creswell & Creswell, 2018). We used a basic qualitative research approach, which is one of the most common forms of qualitative research in education (Merriam, 2009). Merriam (2009) also indicates this type of study is useful with small sample sizes and when using interview data. We situated this study in the epistemological perspective of constructionism. Constructivists posit that each person constructs their own understanding of the world through their interactions (Crotty, 2010).

Data Collection

Participants were selected through purposive sampling to reflect the state teacher population (Merriam, 2009). The state teacher population at the time of the study was approximately 570 teachers. Criteria considered when working with state Agricultural Education staff in identifying potential participants included representation of all regions in North Carolina, teacher education pathway to licensure, years of experience, program size, and community served. Thirteen teachers (see Table 1) were chosen to participate from across the state with experience that varied from 2-25 years. Teacher education pathway is not indicated on the table because the purpose of the study is not to compare university preparation in any way, but to ensure representation from across the state's institutions. Participants were contacted via work email between April-June 2022 and indicated through a Qualtrics consent form their willingness to participate in the study. Study inclusion criteria consisted of (1) Current North Carolina SBAE teacher, (2) At least one full year of experience as a SBAE teacher, and (3) Include SAE as a component of their SBAE program. Pseudonyms were used to protect the identity of the participants.

Table 1*Information on Study Participants*

Pseudonym	School level	Teachers/ Program	Community	Years Teaching
Tammy	Middle	1	Urban	2
Patsy	High	1	Suburban	3
Reba	High	1	Rural	4
Naomi	High	2	Rural	5
Loretta	Middle	1	Suburban	5
Kenny	High	2	Rural	5
Dolly	High	3	Rural	8
Rosanne	High	1	Rural/Suburban	10
Randy	High	2	Rural	11
Emmylou	High	3	Urban	14
Willie	High	4	Rural	18
Keith	High	3	Rural	24
George	High	2	Rural/Suburban	25

Individual interviews were conducted yielding more than five and half hours of interview data which were transcribed verbatim from recordings by the researchers. The semi-structured interview protocol consisted of eight questions that related back to the guiding research question. The questions were (1) Tell me about how you are using SAE for All in your classes. In your program?, (2) What have you had to create or change within the guides to make it work for your program?, (3) What successes have you/your students experienced through the use of SAE for All?, (4) What barriers are keeping you from (fully) implementing SAE for All?, (5) What resources do you think are needed to help SBAE teachers to fully implement SAE for All?, (6) How are you using AET?, (7) What, if anything, are you planning to change with SAE for next year?, and (8) Is there anything else you would like to share about SAE for All?. In addition to these questions, probing questions were used to elicit additional information and depth from participants in their responses.

Data Analysis

Data were analyzed using the constant comparative methods (Glaser, 1965). The constant comparative method (Glaser, 1965) has four stages: 1) comparing incidents to categories, 2) integrating categories and properties, 3) delimiting the theory, and 4) writing the theory. While these stages are presented linearly, they are engaged repeatedly as needed during analysis. We used open, axial, and selective coding as the constant comparative method requires researchers to review the data multiple times, reconsidering all statements in light of current themes. During interviews, researchers made memos to record their reactions, thoughts, and any potential emerging themes. Data from the transcribed interviews and related memos were first coded by both researchers to identify major themes by looking for repetitions in the data (Ryan & Bernard, 2003) as well as those items which were most relevant, most repeated or most insightful. We met as a research team to discuss codes and themes we saw emerging, addressing disagreements until consensus was reached.

Trustworthiness was established through rich, thick descriptions using direct quotes throughout the findings to provide the clearest overview of implementation of SAE for All in SBAE classrooms in North Carolina. These rich descriptions allow the reader to make decisions about transferability and applicability of any findings (Guba, 1981). Reliability was established through a continuous review of the themes and codes as well as peer debriefing among research team members working with the collected data as well as through the use of member checking on transcribed transcripts and final themes.

The limitations of this study are (1) the study only includes thirteen teachers from one state, (2) findings may not be generalizable beyond the sample, and (3) we only have access to the information disclosed by teachers during the interview. We acknowledge our positive and deep engagement with SAE and SAE for All and our philosophical belief in the integral nature of SAE have shaped our opinions and allow us to understand successes and challenges in implementing SAE for All but also may impact our interpretation of themes and findings. As researchers, we worked to identify our bias throughout the process by bracketing our experiences, writing reflexive memos during the study, and talking about findings during each stage. These findings address one portion of a broader study into SAE for All implementation (Ford & Lambert, 2025).

Findings

When looking at how SAE for All is being used in the state, three themes were constructed from the data, (1) SAE for All Usage, (2) Teacher Intention, and (3) Implementation Roadblocks, along with associated codes. See Table 2.

Table 2

Summary of Themes and Codes

Theme	Code	Description
SAE for All Usage	Quick Gains	Pieces of the SAE for All model were adopted, adapted, or implemented quickly by participants.
	Curriculum Mandate	Teachers were influenced by a one-size-fits-all state mandate to put SAE for All in the curriculum.
	Career Exploration	SAE for All, and particularly Foundational SAE, was helping students identify future careers.
Teacher Intention	Improving SAE	Teachers were demonstrating a desire to improve SAE for their programs.
	Misconceptions or Misunderstanding	Teachers held misconceptions about SAE for All and an incomplete understanding of the model.
	Eager to Learn	Teachers were eager to learn more about fully implementing SAE for All.
	Buy-In	Some teachers were struggling to buy-in to the SAE for All model.
Implementation Roadblocks	COVID	The COVID-19 pandemic impacted teachers' progress in implementing the change.
	Teacher Cooperation	Teachers talked about a lack of alignment among multi-teacher programs and from middle to high school programs.
	Foundational Misalignment	Middle school teachers experienced misalignment between Foundational SAE and their programs/students.
	FFA Awards	Teachers saw a lack of alignment between SAE For All and FFA awards.

SAE for All Usage

The first theme constructed was *SAE for All Usage*. Included under this theme were three codes: *Quick Gains*, *Curriculum Mandate*, and *Career Exploration*. The first code was *Quick Gains* which asserted that as the SAE for All model rolled out, pieces were quickly adopted, adapted, and/or implemented by participants in their SBAE programs. One piece participants picked up quickly was the idea of School-Based Enterprise Immersion SAEs. According to the SAE for All Teacher Guide (The Council, 2017b), School-Based Enterprise SAEs are “student-led business enterprises that provide goods or services. They are operated from the school campus utilizing facilities, equipment and other resources provided by the agricultural education program or the school in general” (p. 20). George shared his school was working to have “more School-Based Enterprises going,” saying students enjoyed the fact that “they can see it, and touch it, and feel it, and experience it.” Randy indicated SAE for All had him thinking about School-Based Enterprise SAEs and how “to make them more successful.” In the past, Tammy has provided her middle school students with a “very long list of ideas” and has decided instead to “narrow that down a little bit and try to make it a little more school-based.” Others were more specific in their plans for School-Based Enterprise SAEs. Kenny indicated he already uses his shop to build projects which return money to the school and facilities. Kenny has plans to develop School-Based Enterprise SAEs where he could offer his students the same opportunity to build and sell projects, donating 10% back to the program and helping them experience a “realistic kind of business scenario.”

While research was a component of the Moore and Flowers (1993) SAE model, the launch of SAE for All renewed interest in this area. Participants indicated an increased interest in Agriscience Fair for their own students and seeing other SBAE teachers rise to the challenge of incorporating research in their programs. Kenny shared how after learning about SAE for All he “really got intrigued with the idea of a Research SAE” adding that the main reason this appealed to him was “everybody, no matter where you're at resource-wise, can do some form of research project.” Willie shared his belief that some teachers are purposefully choosing not to encourage students into Research SAEs, stating he believes that while students are very capable of doing research, their SBAE teachers lack confidence “in the scientific process or coming up with the idea. It seems overwhelming to the ag teacher so it's easiest if I don't mention it because then I don't show that I am incompetent with it.”

Foundational SAEs were another area that gained quick traction. Patsy was having her students complete Foundational SAEs and using the resources in the Foundational SAE Student Guide (The Council, 2017a), but with modifications. She shared how

one of the things I've had to change up...in the very first packet for career exploration, there's a part... [asking students to identify] what can you do on the chapter level, the state level, the national level [with FFA] when, in all honesty, most of my kids won't ever get outside of the chapter level to do anything. I've had to change it up to [ask] what CDEs would you most be interested in.

Keith, a veteran teacher with 24 years of experience, explained how he and his teaching partners “still use our own record books”, but they updated their record books by adding “some of the new terminology in them.” He further shared how they included Foundational SAE components like “stuff for careers” where “the students had to go into...ag explorer.com and a couple other things.”

The second code constructed under *SAE for All Usage* was *Curriculum Mandate*. First-generation performance-based measurement (PBM) requirements in the state introduced many

teachers to the SAE for All Foundational activities. North Carolina's initial curriculum roll out was a one-size-fits-all approach of using the Intermediate level Foundational SAE for All Student Guide (The Council, 2017a) as a PBM in classrooms. This approach forced exposure to the Foundational SAE resources but presumed all high school students were at the 9-11th grade Intermediate level. This removed the individualization built into the SAE for All model. Even though he had used the Foundational SAE for All guides (The Council, 2017a, 2017b) in the previous year, George admitted "I thought I had a really good handle on the PBMs [and] found out I didn't. I hate to say it but, the Foundational...SAE got pushed to the back burner this year."

Kenny, who had developed a Foundational SAE choice board immediately following the state SAE for All roll out, had to stop using his self-created materials because of the PBM mandate to use only Intermediate level materials. He "thought that [his choice board] gives students a little more freedom in terms of choosing... [what they would] be willing to do...for career readiness and college prep." For others, like Reba, the state requirement was how they were exposed to SAE for All. Reba said she adopted the "SAE for All [Foundational SAE student guides] and resources because that was actually linked in the PBM. That's how I found out about it and started using it."

The third code under the *SAE for All Usage* theme was *Career Exploration*. Participants believed SAE for All had helped students plan for their future careers. Career exploration and employability skill areas were being explored through Foundational SAE. Patsy credited the Foundational SAE in helping her students plan for the future. She recalled a story of a student who entered her Animal Science class as a junior in high school wanting to be a veterinarian. After two rounds of SAE for All career exploration activities in the fall and spring, the student had decided she actually wanted to pursue aerospace engineering. The student told Patsy "I really love that career exploration thing, but I have to say I think I want to do what it told me. I think I want to do aerospace [engineering] now. I don't want to be a vet anymore." Patsy admittedly had mixed feelings because she wants to encourage her students to find a career in agriculture, but also noted "I'm so glad that she figured that out now, before getting into animal science or a vet program and figuring out, like, 'you know what, I don't want to do this'."

In multiple cases, participants indicated that SAEs were especially helpful in removing potential careers from students' interest lists. Dolly shared how sometimes the Immersion SAEs allow students to figure out what they do not want to do and she shared a specific example of a student who worked on the family's beef farm and that allowed her to know that "she wants to be a nurse now, she doesn't want to work with animals, she wants to work with people." She added that she heard her students say " 'this is what I don't want to do', or 'I got these skills from this, but that would fit better in this other career' ." Dolly said SAE for All helped students "figure out what kind of careers they want to go into, but it [also] eliminates the ones they don't want to go into."

Teacher Intention

The second theme to be constructed was *Teacher Intention*. The first code under the *Teacher Intention* theme was *Improving SAE*. The idea that even though participants had implemented SAEs before, or for multiple years, these teachers did not think they had it figured out yet. Rosanne talked about trying to fit the Moore and Flowers (1993) SAE model into her rural/suburban community and said, "I was really frustrated with it, and I was going to take that summer to try to figure out what I could do differently." Rosanne added "that was about the time that SAE for All was rolling out, and I was like, 'this makes sense. This is what I need as a teacher and I think this is what my students need to be more focused on: careers'."

Kenny talked about his multi-teacher program seeking alignment and being willing to adapt. The teacher team meets to discuss “what...SAE look[s] like this semester, or for the school year.” They agree on the parameters to communicate to students, and they “talk about some different ideas of what to try differently.”

Specific to the SAE for All implementation guides (The Council, 2017a; 2017b), Rosanne said “I think the guides are good, but there's...a lot of parts to it and so, I think as a teacher we need to make the decision of what to use and what not to use.”

Reba talked about the balance between students who want to excel in the SAE awards structure and those who do not. She stated that she strives to find a happy median between “those kids who really care and they want to earn their State and their American Degree and the kids who just want to get a good grade in class and move on to the next.” Willie did indicate that “I have to be so flexible in my program for students, you know, because to get an SAE for all of ‘em ya gotta be flexible enough to...offer them an experience outside of class.”

Emmylou wanted to give her urban students the opportunity to do something relevant to them and not just something that met the traditional SAE criteria stating, “I got this kid that wants to try, but you know, what can I have them do?” With the shift to SAE for All, Emmylou and her teaching partners began incorporating Foundational SAE agricultural literacy activities into their classes weekly. She shared how they compiled a list of activities to be accomplished through their agriculture facilities on campus during the weekly SAE class time. They made this list with the idea that “it helps every kid find something to do...so, it's not us standing with every one of our kids one-on-one like, ‘okay, well, could you paint your garage?’.” Once all students were presented with the options, they selected activities to complete which aligned with their interests and could be completed with supervision by one or more teachers in their program. The program had found this is especially useful if the student is not headed to an agriculture career.

Even though he claimed his program was not using SAE for All, Willie recognized that SAE for All was designed to serve every student and was something SBAE teachers needed. Willie explained,

You're talking about SAE in class, but are students having a supervised experience outside of class? I know that I skipped the word ag...so it is a supervised experience growth opportunity outside class and ...sometimes people are limited to 'it's a job' or 'it's an entrepreneurship project', but you know that's why we've expanded into ...foundational type things or exploratory type things or even agriscience for me. Here's the solution: when I am struggling with time or place or opportunity and materials, I can provide an opportunity for experimental SAE.

The second theme constructed for *Teacher Intention* was *Misconceptions or Misunderstanding*. Teacher misconceptions about SAE for All and an incomplete understanding of the model have also led to challenges for implementation. As a reminder, Foundational SAEs are focused on college and career readiness, career exploration, financial literacy, agricultural literacy, and workplace safety and, by design, students are supposed to engage in these areas every year, in every agriculture class to ensure it aligns with their current chosen career path. Multiple teachers incorrectly referenced Foundational SAEs as being non-agricultural SAEs or as being what a student does before they can complete an Immersion SAE project. Reba commented “with SAE for All we've been able to implement students using their job as their SAE project as like a Foundational [SAE] project and that's more geared towards students who don't have anything agriculture [or] anything else available to them.” Naomi also said that “Level two we don't necessarily focus on

Foundational [SAEs] as much just because once they've already done it one time it's just kind of refreshing it a little bit in the level two courses.” Another example came from Dolly:

we don't discourage [students from completing] Foundational [SAEs] because some of them, that's what they need. A lot of these kids were on free and reduced lunch 100%, so a lot of these kids have to have their jobs, to help with their families, but we do make them have some kind of ag aspect to [their SAEs], even if they don't want to do an ag career eventually.

Participants also struggled to see the value in having their students complete Foundational SAE activities if they had a pre-existing identified Immersion SAE. Several participants shared similar sentiments to Kenny who shared how...

there's some students that they have what would be defined as Immersion [SAE] experiences in the model so those kind of more traditional, hands-on SAEs and if they have those when they come to us...we want to focus on that more than the Foundational [SAE] side and so that's been kind of a little bit of a tricky challenge of like we need to do this and *check that box*, so that we can focus on what you have.

Naomi also indicated that Foundational SAEs were “like resume, cover letter stuff, and kind of looking into things that are happening in agriculture, while the Immersion [SAE] one is something that might interest them a little bit more in a specific area.”

For some, they see the SAE for All model as more of the same, but now there is a Foundational hurdle to get past before their students can do SAE. For example, Emmylou indicated her multi-teacher program is working on “adapting the levels better,” providing the example of a student she teaches in “level one but he's already had level two from [my teaching partner]. He doesn't need to be doing Foundational [SAE] stuff again.”

Multiple participants referred to the pre-made resources in the Foundational SAE Student Guides (The Council, 2017a) as ‘packets.’ Patsy described how she “print[s] out the packet” before having students complete the activities together as a class. Kenny also used similar language when describing his initial interactions with the resources from The Council. Kenny stated, “I’ve gone through...the Foundational [SAE]...through those activity packets.”

We also noted that many teachers misunderstood School-Based Enterprise SAE as any hands-on activity done on campus, like creating an opportunity to engage every student in their chapter. One participant wrote a grant and their students “made a sensory garden for the exceptional children on campus” where “every member helped in some capacity with [the sensory garden], and they all logged their hours through the AET.”

The third code under the theme *Teacher Intention* was *Eager to Learn* as teachers wanted to learn more about fully implementing SAE For All. Several teachers indicated they believed SAE for All could work but would like to see examples of programs implementing the model really well. Kenny said:

We [have] got to have somebody that's doing this and doing it well, has true evidence of success. Like, doing this Foundational [SAE] approach, leading directly into and connecting to an Immersion [SAE]. If I can see that by somebody

else, and I'm hoping it's out there somewhere, then it gives me a little bit more 'okay, it does work, it is possible,' it's not just me chasing an imaginary carrot.

George agreed with Kenny's sentiment, explaining that he wanted to see how other teachers were breaking down SAE for All for their students. He explained his desire to attend professional development that has "really good hands-on." He wanted someone to explain what they were doing and show "this is how you use it. This is how you make it work. This is what you do when it doesn't work." George further explained the professional development he had participated in during the winter of 2020, saying the session he attended was an SBAE teacher who "went through how she implemented [SAE for All] in her classroom and she showed us some of the resources that she used, and how" noting that "it was good. It was really helpful, but like said, I just feel like I need more."

Reba also wanted to have more intentional time with other SBAE teachers to better understand SAE for All and share resources. She specified a professional development "where we can all get together and just brainstorm ideas to implement it. I think you might just have to go back over the basics...a couple years in a row just to kind of hone that in for people." Reba then offered how she "like[s] getting ideas from other teachers, with the [state SBAE teacher Facebook group] or teacher conference, and just providing a space for teachers say, 'hey look, this is how I'm implementing it, or how are you doing it'."

The last theme for *Teacher Intention* was *Buy-In*. The veteran teachers indicated that changing their ideas around SAE at this point in their career has been difficult. Keith indicated that he and his teaching partners are close to retirement and acknowledged, "we've got four or five years left, so sometimes it's hard to change your ways of doing things." Rosanne shared how she believes "we're all kind of stuck in that same idea of what traditional SAE is and it's a tough thing to kind of to move from, especially when you get kind of set in your ways, it's really hard."

Others indicated that they are open to a new model of SAE, but that they do not perceive SAE for All as "ag enough" for them. However, the SAE for All Philosophy (The Council, 2015) states:

While many students of agricultural education may end up pursuing fields outside these pathways, it is necessary that agricultural educators as part of a career and technical education program should engage all students in exploring and identifying interests they would have within AFNR. Once student interest is identified, teachers can work with these students to build a program that includes the appropriate experiences necessary to build contextual knowledge and skill toward career readiness in that field...For students in the agricultural education program who have already identified a career interest outside of AFNR, consideration should be given to how an SAE can help that student develop skills and competencies within AFNR context that are transferable to the student's main area of interest (pp. 1–2).

One of the participants who felt strongly about the perceived removal of agriculture from SAE for All, George, explained, "It's hard for me to accept that it doesn't necessarily have to be honest-to-goodness ag. That bothers me. It's kind of hard for me to get excited about it." George expanded, "if we're going to do SAE, let's go ahead and get them into an Immersion project and get them actually doing something...if I'm going to really make it work, I've got to figure out some philosophical questions there." Another veteran teacher, Keith, highlighted his take-aways from the SAE for All training he participated in during the initial roll-out in the state. He shared that while he did think he heard information that indicated the new model gave "every student the opportunity to

have one [SAE]” he also felt he learned “they didn't necessarily have to be agriculture related anymore.”

Teachers were trying to determine if SAE for All was a fad. As experienced educators, many teachers have seen educational innovations come and go. This was outlined in Randy’s approach toward “any new program you always wait to see, or excuse me, I typically wait to see, what’s actually going to last and what’s not going to last.”

Loretta, a lateral entry teacher who has a history of outstanding SAEs and SAE-based awards for her students at the state level, shared “I think a lot of teachers don't do SAE in middle school because I think they don't always understand it.” She added that “it's great if you're someone who grew up doing SAEs and in ag ed, but someone... lateral entry, no experience, that's a lot to take on.”

Implementation Roadblocks

The third theme in our data was *Implementation Roadblocks*. This theme had four codes: *COVID*, *Teacher Cooperation*, *Foundational Misalignment*, and *FFA Awards*. First, as it related to *COVID*, the general consensus among teachers was that the COVID-19 pandemic had hindered their progress in implementing SAE for All. With SAE for All being rolled out in North Carolina in the summer of 2019, teachers had limited time to begin implementing SAE for All before state-wide school shut-downs in March 2020, mandated virtual learning, and continued COVID-related protocols the following school year. Many participants echoed Rosanne in that “COVID hit and [SAE] just, unfortunately, was the thing [that was eliminated].” She went on to add that “a lot of teachers that I’ve talked to, if there was something that we had to weed out in order to just survive through all of that personally, SAE was one of those things.” George shared, “I just think I need a better understanding of how it [SAE for All] works. You know, I think it's, particularly the last couple years we've had, it's just easy to go through the motions”.

However, Loretta was an outlier in her take on incorporating SAE for her middle school students through the COVID-19 pandemic. She stated how she has “kind of taken advantage [of SAE] during COVID.” During the height of the COVID-19 pandemic, she explained how she had her students focusing on SAE. She indicated that while her students were at home and school was 100% virtual, SAE “was basically your assignment in ag.” She indicated that SAE thrived in her program during the pandemic because it was their only assignment.

The second code constructed for *Implementation Roadblocks* was *Teacher Cooperation*. With the tiered levels of Foundational SAEs, alignment across multi-teacher programs has been especially challenging as programs have adopted SAE for All. When we shared about Kenny’s program earlier, he indicated his multi-teacher program has communicated about SAE and managed their philosophical differences, but other programs have not addressed this philosophical misalignment across teachers at all. Willie explained how “there are four ag teachers [in] my program and we all value SAEs differently and now you've got into a bag of worms...there's no doubt that 50% of us find it more important than the other 50%.” Naomi’s experience also highlighted challenges in aligning SAE requirements and expectations in her two-teacher program, stating “I cannot speak for [teaching partner’s] classes. He's a little different than I am.”

While this alignment could be across teachers in the same program, it might be across programs from middle to high school. Loretta acknowledged that her students appreciated getting started with SAE in middle school, explaining how “the kid’s stuff goes with them for middle through high school and they can use that for State Degree applications, American Degree, [and]

Proficiency Awards.” However, she recognized there can be a struggle to get her middle schoolers’ SAE records to the high school agriculture program through AET saying, “now, there are some issues with...transferring stuff from the middle school to the high school, if the high school ag teachers do it correctly or not.”

The third code for *Implementation Roadblocks* was *Foundational Misalignment*. The Foundational SAE component of the SAE for All model is broken down into three levels in which students can complete activities related to their current career exploration and planning phase. SAE for All recommends Awareness level activities for students in grades 6-9, Intermediate level for students in grades 9-11, and Advanced level for students in grades 11-12 (The Council, 2017b). The SAE for All Independent Student Learning Guide (The Council, 2017a), offers pre-made lessons and activities aligning with all three of the Foundational SAE levels.

When thinking about her middle school students, Tammy reflected that she learned about SAE for All in her teacher education program and was excited to use it, but when she took a job at the middle school she felt “like it, even the Foundational [SAE] one, is a little bit too much for the middle school level...I feel like if there's maybe a level underneath Foundational, like exploratory, it might work better for middle school.” Loretta explained that “in middle school it is hard for a kid to do a resume or do those other career type things or they just do it so much already in school...that's just like a little too much for them” when asked if she utilizes the pre-made activities provided through the Awareness level Foundational SAE Student Guide (The Council, 2017a). Considering the Foundational SAE resources, Loretta expanded, “I like that SAE for All has all those different things...if they want to, they can explore their future career... However, I want it to be fun in my class, because it's really hard to get middle school students to do SAE projects outside of school.”

The last and final theme in the data under *Implementation Roadblocks*, code four, was *FFA Awards*. Several participants referenced the lack of alignment between SAE for All and FFA Proficiency Awards as concerns. Some teachers are measuring SAE success by degrees and proficiencies, like Randy who shared “we're actually looking to hire...six students: two for horticulture, two for animal science, two for ag mechanics and then all those programs will be proficiency areas and all count as SAE hours.” With awards driving SAE for some teachers, the alignment of SAE with the award structure was discussed. Reba stated that “proficiency awards are more geared towards traditional SAE projects” pointing out that FFA award applications still recognize “working on a farm, working with animals, raising a species of livestock.” When asked how to address that issue, Reba wondered if we “could shift gears to accommodate students who are doing an exceptional Foundational SAE.”

In our interview with Emmylou, she talked about being challenged with how Foundational SAE hours “count” for State FFA Degrees. Wording in the SAE for All guides from The Council leaves room for interpretation, stating, “While the Foundational SAE is essential for every student’s SAE program, hours spent on this element outside the context of an immersion SAE may not contribute to the attainment of FFA awards or degrees.” (The Council, 2017b, p.11). Emmylou shared “if we can have that streamlined [where] everything counts or doesn't count for degrees, I think that language would help tremendously, just because it's confusing to us, so I know it's confusing the kids.” She identified ways to use the same hours, but set them up differently within AET and indicated the uneven application of this process would provide an advantage to those students whose SBAE teachers could or would work to help them through the process of rearranging their SAE hours to “count” under the current state guidelines. She highlighted how some teachers “are working the system to get their kids what they think their kids deserve and then some teachers saying, ‘sorry it doesn’t count’ like ‘you can't get this degree’ or ‘you can’t apply for this award’.” Willie told us, when speaking of his highly awarded multi-teacher program, “we've had a lot of

success with the old way that we've done it" and there is "little motivation" to move to a new model unless it can lead to at least an equal if not increased opportunity for success and recognition for students.

Conclusions/Recommendations/Implications

This study illuminates the current SAE for All implementation in North Carolina and highlights areas where improvement is needed. It is important to recognize the task of implementing SAE well is a big request of teachers. The intricate nature of moving a program full of individual students through multiple years of individualized SAE growth and advancement to provide each student with career preparation for their individual goals is not an easy task for anyone. This is not a new issue in our profession considering the many ways that SAE has (and has not) been implemented in the past (Marzolino & McKim, 2024; Retallick, 2010), despite the fact that nearly every study measuring importance of SAE has found that teachers highly value SAE (Rank & Retallick, 2016; Rubenstein et al., 2023; Shoulders & Toland, 2017; Wilson & Moore, 2007).

Perhaps the current model of SBAE with three separate circles which only slightly overlap is an outmoded image and teachers need to more consistently see a message that much of what they do in their classroom is SAE. The inclusion of the School-Based Enterprise Immersion SAE category has opened this door. The idea of Foundational SAE activities fitting into the curriculum would allow every student to begin their SAE journey during class. If more teachers understood this Foundational SAE aspect and its intended inclusion in the classroom, perhaps more students would be served by SAE (The Council, 2015). When you layer on the innovative nature of SAE for All, teachers need a model of success they can look to for guidance. They want to see it working. They want concrete examples. Additionally, SBAE teachers need to see a peer who can implement all the lofty and worthy goals of SAE while teaching the state curriculum and serving the local community well with the FFA program.

School-Based Enterprise, Research, and Foundational SAEs are being adopted in some capacity by teachers in North Carolina. All three SAE categories could be implemented with a group of students, on campus, and during class. Having multiple students with SAEs on or near a school's campus could address the barrier of time for SAE supervision (Retallick, 2010), by decreasing the coordination and travel time required for supervision. Teachers were also working within their perceived behavior control (Ajzen, 1991) to make the Foundational SAE for All resources from The Council fit with their program and prior SAE expectations. State and national SBAE stakeholders should continue to offer professional development related to SAE for All. We recommend utilizing teachers using SAE for All in their programs who can highlight how they are implementing school-based SAEs. Teacher educators should continue teaching SAE for All to pre-service teachers and consider requiring students to complete a semester-long project mimicking best practices for implementation in their future classrooms. Service Learning and School-Based Enterprise SAEs lend themselves to the college classroom, like activities implemented in several programs already (Ford & Lambert, 2023; Toombs et al., 2022).

It is important to note as we think about the roll-out of SAE for All in the state, the North Carolina Agricultural Education Staff are critical change agents (Rogers, 2003). The diffusion of innovations theory (Rogers, 2003) describes a change agent as "an individual who influences clients' innovation-decisions in a direction deemed desirable by a change agency" (p. 473). State staff hold a unique role that can positively impact the decisions teachers make concerning SAE for All implementation in their programs. Many participants indicated they only used SAE for All the first time because it was embedded in the curriculum as part of the PBM. The ability to drive change through requirements whether that be in curricular integration or as a part of mandated professional

development, external motivation can be a tipping point for someone considering an innovation. The same can be said of our teacher education programs. There are four teacher education institutions in North Carolina and only two have a course fully dedicated to SAE for All and experiential learning that is required of those in the undergraduate licensure pathways. Both state staff and teacher educators can use their influence to set the subjective norms expected of an SBAE teacher in North Carolina relating to SAE (Ajzen, 1991).

Career preparation has been a critical goal of SAE since the home project method was introduced (Stimson, 1919). Teachers in this study were using Foundational SAE components to help their students explore career opportunities and using Immersion SAE opportunities to allow students to determine if their career goals were a “fit.” We recommend the widespread use of Foundational SAE in all agriculture classrooms and by all SBAE teachers but also recommend that the flexibility of the various levels (awareness, intermediate and advanced) be offered to students so the students can find their fit (Ajzen, 1991). We heard from those currently at a middle school or who have taught at middle school that SAE for All is missing a level, needing something lower than what is currently offered in the SAE for All guides at the Awareness level. While the model shows Awareness as appropriate for students in grades 6-9, our classroom teachers suggested putting the 6th graders at the same level as a high school freshman was not working and that middle school students needed something more exploratory and introductory in nature. We recommend the SAE for All committee currently at work on revisions consider this pre-awareness option. Again, as we connect back to the theory of planned behavior, teachers need to feel positively toward the innovation implementation in order to change (Ajzen, 1991).

We did hear from teachers that the launch of SAE for All went a long way toward solving many of their issues with SAE. It gave a clearer pathway for students who did not walk into the classroom with a pre-existing Immersion SAE opportunity. Elliott and Lambert (2018) offered the term rural privilege as a way to describe, in part, “rural students whose family has the financial means and space to engage in larger SAE projects” (p. 208) and students whose “family experiences and knowledge, particularly in production agriculture, may give them an advantage over urban students” (p. 208). Further, these authors asked: “should we continue to assert that non-rural students can engage [SAE] differently, pursuing an agriscience research project for example, or should our profession work to provide opportunities that rural students might enjoy such as raising livestock?” (Elliott & Lambert, 2018, p. 209). The teachers in this study from urban and suburban environments talked about trying to apply an outdated model of home or farm projects when the alternatives were equally mismatched (Moore & Flowers, 1993). We firmly believe the profession is on the right track with SAE for All, which serves all students, regardless of career interest and access to land or livestock, but continue to push for a philosophical shift in leadership, teacher education, FFA awards structures, and other external forces that are in ways big and small, perceived and actual, preventing teachers from serving all students with SAE.

As we conducted interviews and reviewed the data, it became apparent that our teachers do not understand the purposes of Foundational SAE in the SAE for All model. There are many reasons this could be happening. It did launch right before the COVID-19 pandemic (NCES, 2022). Teachers may have missed the one initial roll out that happened in summer of 2019, so continued professional development and/or train-the-trainer events will help. Without some training, only seeing SAE for All as a performance-based measure and curriculum requirement in their course, SBAE teachers may be receiving the message that it is curriculum and content around SAE rather than a focused emphasis on career exploration for every student that is their SAE.

Teachers in North Carolina also did not fully understand the nuance behind School-Based Enterprise SAEs and were using that term to categorize every hands-on experience students were

having on campus, similar to teachers in Florida (Switzer & Barry, 2025). Model programs using all components of School-Based Enterprise SAE from school facilities to student driven decision-making need to be shown as examples. Additionally, teachers need to know students should record the labor that is happening on campus where students are not the decision makers, like watering the school greenhouse on the weekends, as school-based placement experiences rather than School-Based Enterprise SAEs.

We initially struggled with where we were seeing a shift among our teacher group. While we initially thought perhaps it was aligning to the teacher career phase, it also appears mindset is playing a role. Dweck (2006) coined the term *growth mindset*. Multiple teachers demonstrated a growth mindset when it comes to SAE. This shift appears consistent with Shoulders and Toland's (2017) findings that millennial teachers have a stronger desire to incorporate SAE in their programs. Those teachers who can see themselves as only a few years from retirement indicate they are reluctant to change something they do not see as wholly broken, while others indicate that SAE for All was taught to them in their teacher education program and is the only pathway to SAE integration they have ever known. Some appeared to be philosophically influenced by their teaching partners while still others were seeking innovation in SAE out of frustration with how SAE was not working for them or their students under the Moore and Flowers (1993) model. This is a group that needs guidance and influence from teacher opinion leaders. Using those late career, growth mindset teachers to set the stage during training is critical for teacher buy-in.

Educational COVID research has uncovered both positive and negative impacts of COVID on agricultural education programs and teachers (Clemons et al., 2021; Gregg et al., 2024; McKim & Sorenson, 2020; Ramage Martin et al., 2023). While some indicated it gave them additional time to focus on the curriculum and learn new educational technology, the quick pivot increased teacher stress and there were fewer opportunities for students to engage in hands-on learning opportunities typically offered in agriculture programs. The teachers in this study also reported mixed outcomes of the pandemic impact on SAE for All. While most indicated it slowed down their implementation of the SAE for All model, at least one teacher indicated that SAE became the expectation for their students while in remote learning. North Carolina staff have taken notice and relaunched their education efforts in SAE for All. Any attempted measure of gains in implementation should be marked from the date SAE for All was relaunched.

The challenges of aligning an SBAE program philosophically can be compounded when a program adds multiple teachers. Differences in personalities and conflict resolution styles impact multi-teacher SBAE programs (Collins, 2024), which can add an additional challenge to incorporating SAE for All equally in SBAE programs with multiple teachers. Any offered professional development opportunities should be directed toward all teachers in a given program and provide time for philosophical conversations among teachers with time to reach agreement on program requirements and a consistent message for students.

Research has shown, and teachers clearly told us in these interviews, that FFA awards and degrees are driving what is happening in the classroom with SAE (Bird et al., 2013; Ford & Lambert, 2025; Rubenstein & Thoron, 2019). This is directly related to the theory of planned behavior (Ajzen, 1991) and the subjective norms of working within the agricultural education profession as well as the teachers perceived behavioral control. The ambiguity in the SAE for All Guides which includes a statement that hours "may not" count needs clarity both for those who would earn hours and those who implement policy (The Council, 2017b, p.11). Until these very visible FFA metrics of success evolve to include or even celebrate all the components of SAE for All, integration will continue to lag for teachers. This research conversation led to a proposal in the summer of 2022 to the North Carolina FFA Board of Directors to make a clear policy about using Foundational SAE hours for

State FFA Degrees. The next steps will be to work with the team at AET to solve implementation issues, and we will still need to navigate what to do with SAE hours as they count toward American FFA Degrees. There is currently no clear policy.

Recommendations for Future Research

We offer the following recommendations for future research. Investigate both the teacher and student experience with SAE for All. The current study investigated teacher implementation of SAE for All, but not the reality of what students were taking away from the new model of SAE. Perhaps a longitudinal study following students' career decisions and skill development could showcase the long-term impact of SAE for All. Focusing on Foundational SAE, its connection with Immersion SAE, and student impact could help drive the continued adoption of SAE for All throughout SBAE programs.

We also recommend investigating more closely the growth of newer Immersion SAE categories, such as School-Based Enterprise and Research Immersion SAEs. Specifically looking at how Immersion SAEs are being implemented within a program could provide insight for preparing preservice teachers and professional development around SAE for All. Additional research into SAE for All implementation could create more practical opportunities to improve SBAE student learning and connections to skill development and career connection through the use of the SAE for All model.

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