

SAE for All in Developing Student Efficacy of Career Development: SBAE Teacher Perceptions

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Abstract

A primary purpose of School-Based Agricultural Education (SBAE) programs is to prepare students for successful careers in agriculture, food, and natural resource-related industries. Supervised Agricultural Experience (SAE) is a component of SBAE and is regarded as a valuable experience for students. However, SAE is often viewed as a weakness stemming from declining student participation over several decades. In 2015, the National Council for Agricultural Education established new principles guiding SAE, and in 2017, resources were developed for a new approach titled SAE for All. This phenomenological study describes teacher perceptions of SAE for All relating to student efficacy in career development. Findings reveal that teachers are positive about what SAE for All does for their students. Implementation was common among participants, though it required teachers to find, create, or adapt resources to meet their preferred teaching approach and local needs. Most teachers maintained that student participation was a graded expectation. Documentation, or record-keeping, remains a common expectation of teachers for their students. Teachers were optimistic about SAE for All's ability to make participation accessible to more (or all) students, especially those without access to resources or transportation, those not interested in production agriculture-based projects, and students not consistently enrolled in an agriculture course. SAE for All provides a useful structure for teachers to incorporate career awareness and exploration into their SBAE program, which included students contacting professionals in career fields based on interest and job shadowing local professionals. Teachers aimed for 100% student participation in SAE for All.

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Introduction and Literature Review

For over 100 years, School-Based Agricultural Education (SBAE) programs have existed in secondary schools. According to the National Council for Agricultural Education (NCAE), one of the primary purposes of SBAE programs is to prepare students for successful careers in agriculture, food, and natural resource-related industries (National Council for Agricultural Education, 2022). SBAE does this through an integrated model of instruction, including direct instruction in the classroom and laboratory, participation in the FFA student organization, and individualized or small-group participation in a supervised agricultural experience (SAE) project (Talbert et al., 2014). The instructional and FFA components are generally considered a strength of the program. However, while the SAE component is regarded as a valuable experience for students (Dyer & Williams, 1997; Hughes & Barrick, 1993; Marx et al., 2014; National Council for Agricultural Education, 2015; Ramsey & Edwards, 2011; Robinson & Haynes, 2011; Smith & Rayfield, 2016; Talbert et al., 2014), SAE has frequently been cited as a weakness because of reduced student participation over the last several decades (Bird et al., 2013; Retallick & Martin, 2005; Steele, 1997). As Wilson and Moore (2007) noted, teachers may choose not to implement the SAE component for all students because of perceived barriers. Wolf (2011) found that teacher self-efficacy in implementing SAE was lower in comparison to the classroom and FFA components.

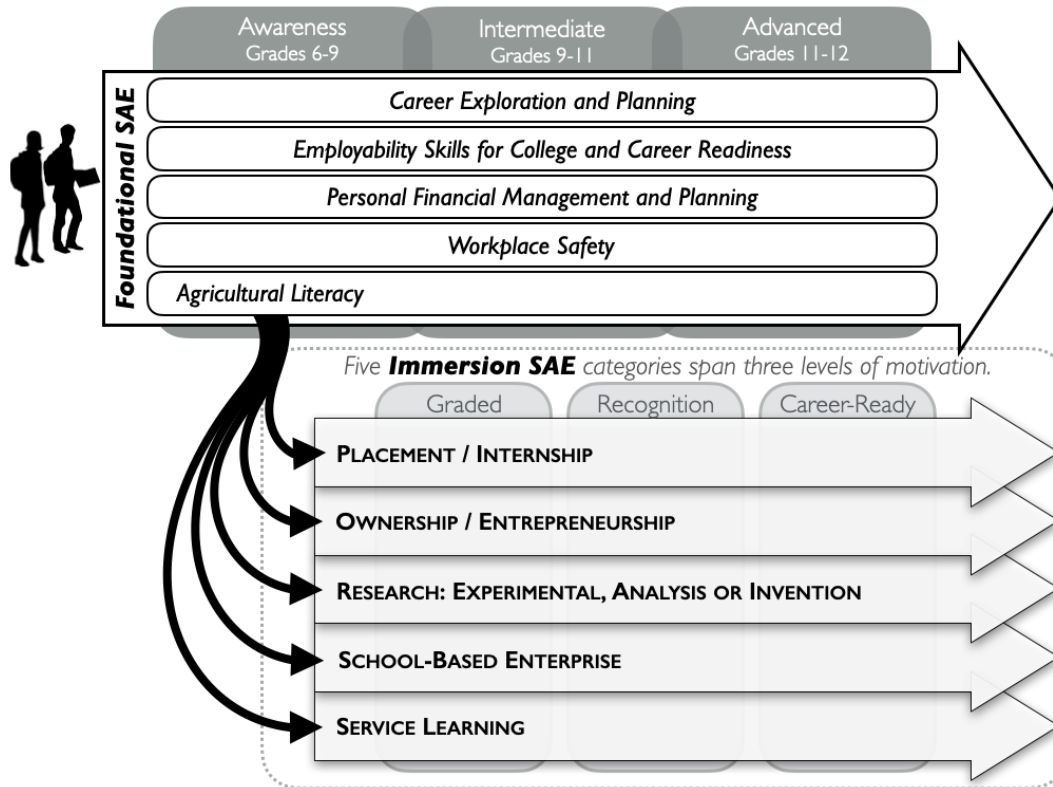
As a result of fewer students implementing Supervised Agricultural Experiences, in 2010, the NCAE initiated a revision of this component of the SBAE program (National Council for Agricultural Education, 2019a). After five years, in 2015, the NCAE developed a new document entitled “Philosophy and Guiding Principles for Execution of the Supervised Agricultural Experience Component of the Total School-Based Agricultural Education Program” (National Council for Agricultural Education, 2015). Based on these principles, in 2017 the NCAE published teacher and student resources for a new approach called *SAE for All* (National Council for Agricultural Education, 2019b). These materials introduced a new definition for SAE,

Supervised Agricultural Experience (SAE) is 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. (National Council for Agricultural Education, 2017b)

This new *SAE for All* model provides a focus on career exploration and development compared to previous approaches, stating that students will “consider multiple careers and occupations, learn expected workplace behavior, and develop specific skills within an industry, and are provided opportunities to apply academic and occupational skills in the workplace or a simulated workplace environment” (National Council for Agricultural Education, 2015, p. 1). Outlined in NCAE’s *SAE for All: Teacher Edition* guide (2017b), the *SAE for All* model’s approach includes a required *Foundational SAE*, which provides experiences appropriate for all students to experience, including career exploration and planning, employability skills for college and career readiness, personal financial management and planning, workplace safety, and agricultural literacy experiences. Furthermore, students may add one or more *Immersion SAE* work-based learning experiences, including placement/internship, ownership/entrepreneurship, research (experimental, analysis, or invention), school-based enterprise, or service learning (see Figure 1).

Figure 1

The SAE for All Student Roadmap



Source: National Council for Agricultural Education (2017b).

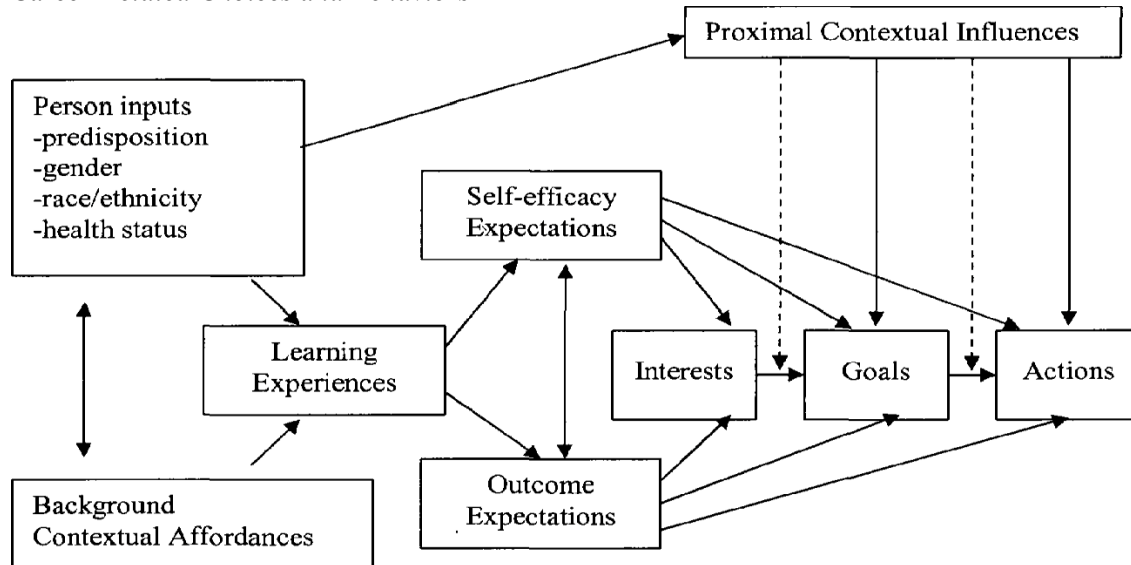
While the *SAE for All* model resources have been available to teachers since 2017 (National Council for Agricultural Education, 2017b), in-person professional development for *SAE for All* was paused because of the COVID-19 pandemic, creating a gap in time for teachers and teacher educators to learn about and prepare to implement *SAE for All* into their curriculum. It is not known at this time to what extent *SAE for All* is being implemented in local SBAE programs across the nation, nor is it known how *SAE for All* is perceived by teachers who have adopted and are currently using *SAE for All* in relation to career exploration, identification, and development of individual students.

Theoretical Lens

Social Cognitive Career Theory (SCCT) was pioneered by Lent et al. (1994) as a theory to explain three interrelated aspects of career development. Based on Bandura's (1986) Social Cognitive Theory, SCCT extends aspects of the general theory to apply to an individual's career development process. SCCT focuses on (a) how academic and career interests originate and develop, (b) how individuals make academic and career choices, and (c) how educational and career success is obtained (Bandura, 1986; IResearchNet, 2016; Lent et al., 1994). Central to the theory are learning experiences that enable people to alter both the individual's self-efficacy expectations and outcome expectations (see Figure 2). Applying SCCT as a lens to *SAE for All* and work-based learning strategies may allow for a new perspective on how these experiences may enhance student experiences that impact career interests, goals, and actions.

Figure 2

Model of Social Cognitive Career Theory and How Person, Contextual, and Experiential Factors Affect Career-Related Choices and Behaviors



Source: Lent et al. (1994).

Purpose of the Study

The purpose of this study is to describe teacher perceptions of *SAE for All* relating to student efficacy of career development, utilizing a central question: “What are SBAE teachers’ perceptions of how SAE for All develops student efficacy of career development?” Sub-questions include:

1. How are teachers currently implementing *SAE for All*?
2. What did the teachers’ students uniquely experience as a result of *SAE for All*?
3. To what extent do teachers believe the Foundational SAE has helped students become aware of, explore, and prepare for careers?
4. To what extent do teachers believe Immersion SAEs have helped students become aware of, explore, and prepare for careers?

Methods

This phenomenological study utilized participants’ firsthand experiences (Merriam, 1998; Moustakas, 1994) to discover the *essence* or structure of the *SAE for All* phenomenon (Dooley, 2007) as it related to teachers’ perceptions of their students’ efficacy in career development. This study employed a transcendental phenomenological approach, as described by Moustakas (1994), which begins with a question or problem that the researcher seeks to answer. Moustakas (1994) wrote,

Phenomenology, step by step, attempts to eliminate everything that represents a prejudice, setting aside presuppositions, and reaching a transcendental state of freshness and openness, a readiness to see in an unfettered way, not threatened by the customs, beliefs, and prejudices of normal science, by the habits of the natural world or by knowledge based on unreflected everyday experience. (p. 41)

The phenomenon under investigation is SBAE teachers' lived experiences of implementing *SAE for All* and their perceptions of how this implementation affects student career development efficacy.

Researcher Reflexivity

By researchers identifying their position when conducting qualitative inquiry, it allows the reader to better understand the choices made and the eventual conclusions made by the researcher (Merriam & Tisdell, 2016). As the primary researcher, I was previously a SBAE teacher for nine years. During this time, I initiated two student-led experiences that are now known as School-Based Enterprise. I currently serve as a professor of practice of agricultural education. It is noteworthy that I may have directly engaged in or contacted some participants previously, whether as a former professor, through the Nebraska Career Development Event competitions, previous professional development offerings, or professional meetings. I have also been involved in developing the national *SAE for All* concepts, materials, and professional development for teachers and teacher educators.

Procedures for Data Collection and Analysis

Phenomenological investigations should include between 5 and 25 participants who have experienced the phenomenon (Polkinghorne, 1989). Criterion-based sampling (Creswell & Poth, 2018) was utilized to select eight participants to participate in the study based on their adoption of *SAE for All*. Teacher participant selection criteria included:

- be a certified secondary school-based agricultural education teacher located in a Midwestern state,
- has participated in a regional or state *SAE for All* training (half-day or longer),
- has implemented the Foundational SAE with students for at least one year, and
- has implemented Immersion SAEs with students for at least one year.

Participants were solicited through an email listserv and recommendations from state leaders who recommended specific teachers meeting the selection criteria.

Following approval from the Institutional Review Board, I conducted a one-hour, semi-structured focus group interview (Berg & Lune, 2012; Merriam & Tisdell, 2016) with all eight participants during the summer of 2023. The central research question and five sub-questions, which were developed by our research team, guided the interview, with follow-up questions, allowing “the researcher to respond to the situation at hand” (Merriam & Tisdell, 2016, p. 111). The semi-structured interview protocol enabled probing questions designed to explore the deeper lived experiences of *SAE for All* implementation. The group interview took place via a Zoom® video conference, which also served to complete the initial transcription. Handwritten notes were taken by the researcher as a secondary data source that was also utilized for analysis (Creswell & Poth, 2018; Merriam & Tisdell, 2016).

Data Analysis

With the assistance of MAXQDA® software, the data underwent analysis using the thematic analysis method, aiming to focus on and identify recurrent phrases and words relevant to the study (Grbich, 2013). Additionally, the constant comparative method, originating within the use of grounded theory was employed. This approach is now widely used in various qualitative studies (Charmaz, 2014; Merriam & Tisdell, 2016). This method allows the researcher to compare different data segments to unveil similarities and differences (Merriam & Tisdell, 2016). The coding systems included open coding, axial coding, and

selective coding (Corbin & Strauss, 1990). Using these coding techniques, our research team identified themes, thoroughly examined them, and developed descriptive titles for each emerging theme.

Trustworthiness

Trustworthiness in phenomenological research relies on whether or not a reader may adopt “the same viewpoints articulated by the researcher, can also see what the researcher saw, whether or not he agrees with it” (Giorgi, 1975, p. 96, as cited in Grbich, 2013, p. 92). The researcher is to bring the reader in close proximity to the experiences and structures of the essences studied while also providing transparency in the process (Grbich, 2013). Member checks, triangulation, and dependability and confirmability audits were utilized to maximize the trustworthiness of the findings (Lincoln & Guba, 1985). I took handwritten notes during the interview as a form of secondary data collection that was also used for analysis (Creswell & Poth, 2018; Merriam & Tisdell, 2016). Member checking was completed throughout the focus group using verbal confirmation in an effort to ensure participants’ viewpoints were interpreted accurately. I also recorded my methodological decisions to provide dependability and confirmability audits. Such measures help to establish trustworthiness for the study (Dooley, 2007; Lincoln & Guba, 1985).

Depiction of the Participants

The participants in this study were SBAE teachers at the secondary level (middle and high school). While Creswell and Poth (2018) recognized that qualitative research is not generalizable, understanding the background of the participants can help readers determine whether the findings may be transferable to a similar situation for other teachers or areas of the country. Eight teachers from two states participated. Some were initially trained in a different state or completed an alternative certification program. Additional teachers were initially invited and confirmed their participation, but ultimately did not join the focus group call. See Table 1 for a list of teachers who participated in the study and a description of how they were prepared to teach SBAE, their teaching/work experience, a description of their school, and how they were trained in *SAE for All*.

Table 1*A Description of the Participants in the Focus Group*

Teacher Pseudonym	Teacher Preparation & Years of Teaching Experience	School Description	SAE for All Training Attended
Kevin	Traditional preparation in Nebraska, 21 years of experience	Consolidated, rural, medium-sized school, rural school in Nebraska	Three-day training in Kansas in 2018
Betty	Traditional preparation in Oklahoma; 9 years of experience	Very small rural school in Nebraska	Three-day training in Kansas in 2018
Melissa	Traditional preparation in Iowa; 15 years of experience	Consolidated school with a sizable minority student population in Iowa	Train the Trainer in Iowa in 2019
Bruce	Traditional preparation in Nebraska; 33 years of experience	Medium-sized school that attracts from other school, traditional agriculture in Nebraska	Train the Trainer in Iowa in 2019
Allison	Traditional preparation in Nebraska; 11 years of experience	Very small school, mix of farm and non-farm students in Nebraska	Short workshops embedded in other teacher professional development
Brian	Added endorsement preparation in Nebraska; 9 years of experience plus 7 years of science teaching	Rural, medium-large school district; combination of rural and urban students in Nebraska	Short workshops and focus of his master's degree project
Valerie	Traditional preparation in Iowa; 9 years of teaching experience plus 21 years of industry experience	Moderately large school district, parochial school students attend in Iowa	Train the Trainer in Iowa in 2019; helped present at a national conference
Roxie	Traditional preparation in Nebraska; 18 years of experience	Very small school, agricultural community in Nebraska	Short workshops embedded in other teacher professional development

Note: Traditional teacher preparation refers to participation in an undergraduate teacher education program in agricultural education. Added endorsement refers to someone who earned an agricultural education endorsement after initial certification in another content area.

Findings

Four themes emerged from the data: (a) *SAE for All* implementation varies at the local level, (b) *SAE for All* makes Work-Based Learning more accessible, (c) the Foundational SAE helps students become aware of and explore careers, and (d) Immersion SAE options help students prepare for careers by developing skills but can be inconsistent between teachers and students. Each theme and subtheme is detailed and related to a research question. Teachers were given pseudonyms, which are listed in Table 1.

Theme 1: SAE for All Implementation Varies at the Local Level (Research Question #1)

All eight participating teachers implemented *SAE for All* at some level and in different ways. The approach varied between teachers, however. Most teachers have connected *SAE for All* to classroom expectations and graded experiences. Bruce integrates *SAE for All* between other curricular units, where Melissa and Kevin start during the first week of class. Betty focuses on *SAE for All* during the spring Nebraska School athletic track season to individualize the course during a time when many students are absent. While not every teacher took the same approach with the Foundational SAE, Brian described his portfolio approach, “We reintroduce or basically revisit our Foundational Portfolio that each kid has on a yearly basis,” which is based on the master’s project that Brian designed to implement *SAE for All* into his local program. Melissa describes yet another approach and how it was supported by a state-level initiative and grant funding.

We implement similar to what [Kevin] does, starting right away [in] the first week of class. I don't do a portfolio. I use the National FFA resources, and then in Iowa, the lowest level National FFA resources. They're very long. If you use, there is like Activity A1, [which] can take three to four days, and so in Iowa we got a grant from the USDA to kind of reinvigorate [them], and so we modified those. We cut them way, way down.

Implementing Immersion SAEs tended to be more typical of the traditional SAE model, with a focus on record keeping as an expectation for documentation, as mentioned by Allison, Roxie, Kevin, Valerie, and Melissa. Melissa summarizes her expectations as “I stress with students that you need to learn how to keep records because that's going to be important for you in your future. You know, just keeping track of things, whether you're going into agriculture or not.” Valerie emphasized that documentation is as important as the technical skills students may be practicing in an Immersion SAE, “Sometimes they're going to be keeping track of, you know, cat chores. They're not going to win awards with this. But that's okay. We're not here to win awards. We're here to provide experiences.” Valerie concluded with, “Can you utilize these [documentation] skills to move forward in the [career development] process?”

Teachers also described that their implementation of SAE using the *SAE for All* model continues to evolve, with multiple teachers feeling like they are improving how they utilize SAE with their students. Valerie explained her personal evolution and how she hopes *SAE for All* can help new teachers use it to start SAEs earlier with their students.

I remember my first year teaching, and SAE was just something I avoided with my freshmen just because I wasn't sure where to start with it. So, I think this provides new teachers coming out as long as they're doing it in the teacher [preparation program]. College [gives new teachers] a starting point, at least to get them going and get their students going, maybe in the right direction and [with] guidance. [...] I think that's a positive of the *SAE for All*.

Allison reiterated how she has tried and modified her implementation of *SAE for All*, and how she encourages other teachers to adapt their approach to what works for them and their students.

I think one thing that I have to remind myself is that I'm getting better each year. [You might] do it like once, and you're like, that was terrible, and it was a struggle, and the kids didn't like it, or I didn't grade it, or I didn't follow through, or we didn't have enough time. So, I think if a new teacher was doing it, that's what I would tell them is, you keep getting a little bit better each year, [and] there's always going to be things to improve on.

Theme 2: SAE for All Makes Work-Based Learning More Accessible (Research Question #2)

One theme that emerged from the data was the desire of teachers to utilize *SAE for All* as a way to incorporate Work-Based Learning into their agricultural education programs. This concept is defined as part of the Carl D. Perkins Career and Technical Education Act of 2006, which originated in 1963 and was most recently amended in 2019:

Work-Based Learning (WBL) refers to “sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction. (Carl D. Perkins Career and Technical Education Act of 2006, 2019, p. 14)

Melissa explains, “I think, right now, in education, the buzzword is Work-Based Learning.” She continued, “And parents and community members who don't know what SAE is, definitely recognize Work-Based Learning, or they can embrace that concept. I think [the term is] a little bit easier, because that vocabulary [is] more accessible for them.” When speaking with stakeholders, Melissa described that she “[is looking] for Work-Based Learning experiences for students to experience or to gain career skills and also to explore careers of interest.”

Brian explained that *SAE for All* as a method to incorporate WBL is important to their school, citing, “We don't have any other Work-Based Learning programs in our CTE department, which is scary a little bit. So [it's] a really good, you know, point for our program to be able to give kids that opportunity.” Bruce now offers a new WBL class as an independent study course, “A kid can take a Work-Based Learning class with me where they just work on their school-based enterprise.”

Beyond aligning to Work-Based Learning initiatives, teachers extended their discussion to include how the structure of *SAE for All* also allows for students in different situations and with different backgrounds to participate in SAE. Brian explains his motivation for implementing *SAE for All*,

I would [add] to what [Bruce] said there about the words "for all." I really focus [on the idea that] this is for all kids, regardless of resource availability or [a student's] current interest that they might have. So, I always think about the kids that you know, they see SAE, or they know people that have SAEs [that] show cattle, or whatever. “Well, I don't have. I don't have cows, or I don't have pens or anything like that.” Well, you know, this is a really good chance to engage them and, like [Bruce] said, career exploration and, you know, finding your way. And [then], building on that as you as you're able to. So, the "for all" part is a big focus for me.

Roxie quickly agreed, later adding how the Foundational SAE, specifically, helps with students who do not consistently enroll in agricultural education coursework,

And that's where, like you guys mentioned before, that "for all" part is so handy because it's sometimes, [Betty] calls them her oddball students sometimes, but the students that are just there for maybe one semester or one year. They don't really have a plan to be in the Ag Ed program. And so, the first thing they're going to want to say about doing paperwork or records is, “Why do

I have to do this? I'm not a farmer. I don't work on a farm. I don't want to be a farmer. This is not for me." So, I think for me, the Foundational *SAE for All* stuff works great because it does hit every single kid, and I do a pretty decent job, I think, in that class.

Valerie detailed how she has utilized *SAE for All* as an opportunity for students who could not otherwise take an agriculture course because of conflicting course scheduling,

It allows me to do an independent study. It's bona fide. So, my guidance counselors are willing to put it in because there is curriculum. There [are] evaluations and things. It allows me to keep some students engaged and moving forward, as well as all students that are in the classroom.

Finally, Allison provides another example of how *SAE for All* also breaks down barriers for students who previously perceived that SAE participation was only appropriate for those who chose to join FFA. "He would be the perfect FFA candidate. But [he said] no, 'I'm not doing FFA.' So, when it came to SAE time, he wanted to fight it." Allison reiterated her response to the student, "I said [to the student], 'You are telling me that it is a waste of your time for me to say, 'Do whatever you want that will help you in the future for 45 minutes today.'? And he couldn't figure out a way to argue that when *SAE for All* is so wide open." This may be a result of *SAE for All*'s emphasis on student experiences over FFA awards. As Valerie stated, "They're not going to win awards with this. But that's okay. We're not here to win awards. We're here to provide experiences."

Theme 3: The Foundational SAE Helps Students Become Aware of and Explore Careers (Research Question #3)

Teachers provided numerous examples and testimonials about how the new *SAE for All* model provides a framework for students to participate in activities that allow for career awareness and exploration, with each of their examples falling under the Career Exploration and Planning component of a Foundational SAE (National Council for Agricultural Education, 2015, 2019b). In line with Turner and Lapan (2013), "Career awareness, or what people know about the occupational world and the types of work they might want to do, is foundational to career exploration, which in turn can lead to career preparation, career choice, and career attainment" (p. 539).

Career awareness activities occurred for students in many ways. Multiple teachers incorporated an awareness activity that guided students to define the type of lifestyle they would like to have and then allowed students to ensure their career interests would support that lifestyle. Betty explained, "When they do the reality check of, you know, 'What are my bills going to be? Am I going to be able to make a living with this?' It's kind of eye-opening for them." Kevin gave an example of his conversation with students, "So, after you're done with your schooling, what are you going to be spending on food, clothing, shelter, everything? And they realize, 'Wow, I'm not going to be making enough money as fill-in-the-blank.'" These awareness activities also extend into how a student would finance the education and training required for a specific career, leading to other career mentoring conversations. Kevin explains,

They haven't thought about after high school, or they haven't had a conversation with their parents about who's paying for college. I think some of them probably just go through the idea like, "Well, I'll just go into debt," and we have conversations about whether or not you should have that debt. And I just said, "Why get a degree that you're not going to use?"

Emphasizing the importance of these conversations with students, Kevin later added, "So even if it's not *SAE for All* itself. It's making them think about their future more so and more in-depth."

Another frequent approach to career awareness was using online career interest inventories (Bruce, Brian, Kevin) to help students match their preferences, talents, and interests with potential careers. Recognizing that students undergo significant changes during middle and high school, Bruce detailed how he likes students to complete a career inventory every other year. “For my Foundational [SAE], [students] every other year [complete a] career inventory. I think they're really aware by the time [they are] juniors.” He utilizes this for student reflection, “Then they can kind of look back at how they're interested, how they have evolved over time. So they're really aware.” Bruce later explains that students should eventually move past this phase of career awareness, “I don't do it as seniors because, to me, I don't think they need to. It's kind of too late. [Seniors] need to be focusing on where they get a major and those things.” Brian summarized his thoughts about moving students beyond career awareness,

I feel like I've heard a lot of other people talk about how we're really good at helping kids be aware of careers. You know, there's a thousand different things that we can have them do to research careers and write down 10 careers and write or write a report about a career. I get to the point where I feel like we overdo that so much that the Foundational SAE, for me, by the time they're a sophomore or junior that's not even an option for them to do, and how [I] implement Foundational [SAE]. They have to go out and explore one of those careers.

As teachers described what their students experienced for career exploration, these activities tended to be much more individualized and often extended outside the classroom. As part of a class activity, Kevin requires all students to contact a potential employer by email,

[Students] research on their own. They email the person [about] a career field they have an interest in. Probably the hardest part of the whole thing is making sure they get a reply back from those people that emailed and stay in contact, making sure that they follow up with them on getting a reply. If they don't get a reply, then [students] ask somebody else.

Brian encourages his students to job-shadow and seek out summer internship opportunities. “They have to go out and explore one of those careers. (...) Basically, I'm forcing them to go out and actually job shadow one of those and [then] coming back then and reflecting on that.” He details the result that job shadowing has had on some of his past students, saying, “And they're actually, you know, went to school, and they're working in that career today.”

Teachers also focused on how career exploration is challenging but healthy for students. Kevin started, “I would say, being challenged is an experience.” Allison added to that thought, explaining that initially, students didn't like having to find their own answers.

I think that that's an important challenge that they have is that we're not there telling them exactly what to do and what the answer is because it's going to depend on what they want to focus on for their *SAE for All*. So, I think that's a good challenge that they experience in our curriculum as well, where they don't always get that time [in other classes] to explore and have to make decisions on their own.

Others added that the career exploration aspect of the Foundational SAE also provides opportunities for students to develop transferable skills, including professional communication, document editing skills, and addressing an envelope.

Expanding on the value of career exploration through the Foundational SAE, several teachers expressed the value of helping students identify careers that they may not want to pursue. Allison stated, “When I introduced the *SAE for All*, I often talk about that with kids is this may help you decide what you

want to do, but it also may help you decide what you don't want to do.” Brian provided a specific example of how this helped two of his former students,

They were sure they wanted to be an agronomist. Absolutely no doubt. You know, researched it, job shadowed. I even, you know, had a couple of kids that got involved with the summer internship. And man, they found out that, [after] getting out in a field on a July day, that it's not fun anymore. (...) I feel like those experiences that they've had help them, you know, not go to school for two or three years, four years, and realize they don't want to do this.

Valerie extended this thought to include students developing skillsets to help themselves later in life.

I think it helps my students maybe find a backup plan if they aren't [sure of their career]. I tell [students] you may go to college and change your mind a couple of times on what you do and don't want to be when you grow up. So, you know it's always good to have some research ahead of time. Knowing how to research is important, too. Sometimes we don't necessarily have to have all these problems solved when they leave our classrooms. We have given them the skills to do the research and problem-solve on their own after they leave. So, I think that's been a really good thing. It's provided a framework for career and career readiness skills.

Kevin summed up how he perceives the value of the Foundational SAE by saying, “It's not just for an assignment, not just for the grade, it's not just a project. It's getting ready for life after high school.”

Theme 4: Immersion SAE Options Help Students Prepare for Careers by Developing Skills, but can be Inconsistent Between Teachers and Students (Research Question #4)

While the Foundational SAE addresses career awareness, which Turner and Lapan (2013) also refer to as “foundational to career exploration” (p. 539), they also posit that the third stage of development is career preparation. The student edition of the *SAE for All* guide promotes, “Students are encouraged to add to their Foundational SAE, one or more Immersion SAEs to extend their career preparation to include specific AFNR technical knowledge and skill attainment, and the practice and development of career readiness skills” (National Council for Agricultural Education, 2017a, p. 11). Valerie described this as her approach, “I think the Foundational to Immersion is a natural transition. It allows students to understand that, ‘Oh, yeah, I can do this, or I can learn more about it.’ So I tell [the students] if you've gotten all you can get out of this Foundational, you can go ahead.”

Teachers in this study shared their experience about how Immersion SAEs engage their students in new ways that build both technical and interpersonal skills necessary for success in a career. Most teachers discussed that they have several students participating in entrepreneurship and placement/internship experiences (Roxie, Valerie, Bruce, Brian, Allison, Kevin, and Betty), which are considered more traditional SAE categories that existed before *SAE for All* was introduced. Bruce requires all his freshmen students to have a Research project, which is also one of the traditional SAE options. Two new forms of Immersion SAEs, School-Based Enterprise and Service Learning were introduced with *SAE for All* (National Council for Agricultural Education, 2017b).

Bruce described his hope for every student, “Our goal, the last three years, is to try to get every single kid in the program to have an Immersion SAE.” Recognizing that not every student has access to resources to start a traditional SAE, “And then kids that don't have a decent [Immersion] SAE or quality one, or they need something, some help with it. We [have by] starting School-Based Enterprises. We currently have four [businesses] running that we run through [our program] that has several kids on [each].” According to the *SAE for All* School-Based Enterprise Independent Learning Guide, a School-Based Enterprise can be described as

[Students] lead business enterprises that provide goods or services. The businesses are operated from the school campus utilizing facilities, equipment, and other resources provided by the agricultural education program or the school in general. Additionally, they are owned by the school or FFA chapter, meaning that the organization bears the risk of the business that is managed by students. Businesses may be structured as a partnership or cooperative between students. After generating ideas and conducting market research, students will write a business plan, gain appropriate school board and administration approval, and then launch their School-Based Enterprise. Throughout the business cycle, students will report to a Board of Directors, who will review financial and operational records. (National Council for Agricultural Education, 2018, p. 21)

Bruce's student gained skills beyond what he would otherwise normally for a student in that grade level, saying,

She just took it on herself. (...) They have their own email for their business, but she is a sophomore emailing back and forth with customers and lots of [teacher clients]. To really learn some customer service skills that I just wouldn't see a sophomore having a lot of times, and they've really turned into leaders. I think it's been because of [School-Based Enterprises].

As a result of Bruce's integration of School-Based Enterprise into coursework, students work very intensely in their businesses, "I had six kids working on the school-based enterprises every day of the week. So, I think it really helps to prepare for careers." Melissa, Valerie, and Allison shared their interest in School-Based Enterprises and their goal to have all students engage in an Immersion SAE. Valerie details her immediate plans,

But I do want to start a business. (...) [I] am right now trying to get some skills to take into like an industrial tech type shop so we can [manufacture] signs for the [FFA] chapter. (...) So that's my goal is to start a [School-Based Enterprise] within the school. So that way, if students don't have anything, they could actually pick that up and join that.

Allison takes a different approach to skill development, adding, "[SAE for All] is also a good opportunity to have students explore industry certification." For her students whose Immersion SAE was working in construction during the summer, "they use some of their SAE for All time that I give them in class to complete their OSHA 10 card." She added, "Another kid that was going to do the master Service Technician [certification]" while another student "study for the pesticide applicator's license."

Still, other teachers were less confident in implementing Immersion SAEs, with one adding that it's difficult to keep up with Immersion SAEs if the student is not currently in a course. Adding to the inconsistent implementation of individual students' Immersion SAEs, one teacher explained their personal struggle,

But after [students are not in a class with me], I have done an awful job of the Immersion types because I just don't keep up with those students enough, and then they kind of scatter. You know, they go to different classes, or maybe you miss them for a year because they can't fit an Ag class into their schedule. So, I don't see them for their sophomore year. Then they come back as juniors, and they're missing those records. And that's a me-problem, not a [SAE for All]-problem.

Moustakas (1994) describes a goal of phenomenological reduction as making known the nature and essence of the phenomenon being studied. In reviewing the data, it became clear that teachers are intrinsically optimistic about SAE for All's potential to improve student learning, despite facing local

implementation issues. They also described their willingness to seek out and try new approaches and share them with their colleagues.

Conclusions, Discussion, and Recommendations

Following the introduction of the National Council for Agricultural Education's *SAE for All* model, teachers are positive about what it does for their students, as supported by previous SAE research (Dyer & Williams, 1997; Hughes & Barrick, 1993; Marx et al., 2014; Robinson & Haynes, 2011; Smith & Rayfield, 2016; Talbert et al., 2014), though individual teachers tend to have a unique approach at the local level. Within this study, implementation of the Foundational SAE was common among participants, though it required teachers to find, create, or adapt resources to meet their preferred teaching approach and local needs. Teachers also differed in how and when they introduced *SAE for All* to students. Most maintained that participation in SAE, especially Foundational SAEs, was a graded expectation (National Council for Agricultural Education, 2017b); however, it was unclear whether participants' students were graded in specific courses or in all courses. Documentation, or record-keeping, remains a common expectation of teachers for their students. Whether through success or through struggle, participating teachers described how their implementation of *SAE for All* has evolved or will continue to evolve over time—and are encouraged by a philosophical and practical transformation in how they approach student career development. Based on these findings, it is recommended that NCAE make additional efforts to promote *SAE for All* by collecting and consolidating teacher-created resources to help minimize the effort individual teachers must put into designing their approaches to implementing the Foundational SAE.

With the updated 2018 Strengthening Career and Technical Education for the 21st Century Act, also called Perkins V, renewed emphasis on WBL (Strengthening Career and Technical Education for the 21st Century Act, Pub. L. No. 115–224, 2018), *SAE for All* provides a structure and mechanism to integrate WBL into local agricultural education programs. For some Career and Technical Education departments and school districts, including multiple participants from this study, incorporating WBL is a priority, given federal and state-level expectations. Additionally, participating teachers were optimistic about *SAE for All*'s ability to make SAE participation accessible to more (or all) students, especially those who do not have access to resources or transportation, those who are not interested in production agriculture-based projects, students who are not consistently enrolled in an agriculture course, and students who previously viewed SAE as only for FFA members. Recommendations include promoting the incorporation of WBL and accessibility to more students to teachers who have not yet adopted *SAE for All* in their programs to encourage more teachers to adopt the model.

Based on this study's sample, the Foundational SAE provides a useful structure for teachers to incorporate career awareness and career exploration into their agricultural education program, supporting Lent et al.'s (1994) Model of Social Cognitive Theory. Common activities that supported awareness included career interest inventories and activities that helped students see what was necessary to support a chosen lifestyle. Teachers took advantage of the Foundational SAE to initiate conversations with students to help them think beyond their high school years, including how to finance post-secondary education and training. As students became more aware of career opportunities and their personal interests, teachers encouraged them to engage in career exploration activities. These included contacting professionals in career fields based on the student's interest. Others required students to job-shadow someone in a local profession and reflect on what they experienced. The participants also valued the incorporation of interpersonal and transferable skills. An additional student benefit of the career exploration aspect of a Foundational SAE was the ability for students to discover what they do not want to do, potentially saving them time and money in postsecondary education. A recommendation to help expand the Foundational SAE's ability for career exploration is for NCAE to design and share additional activities to complement shadowing and contacting a professional in a chosen industry.

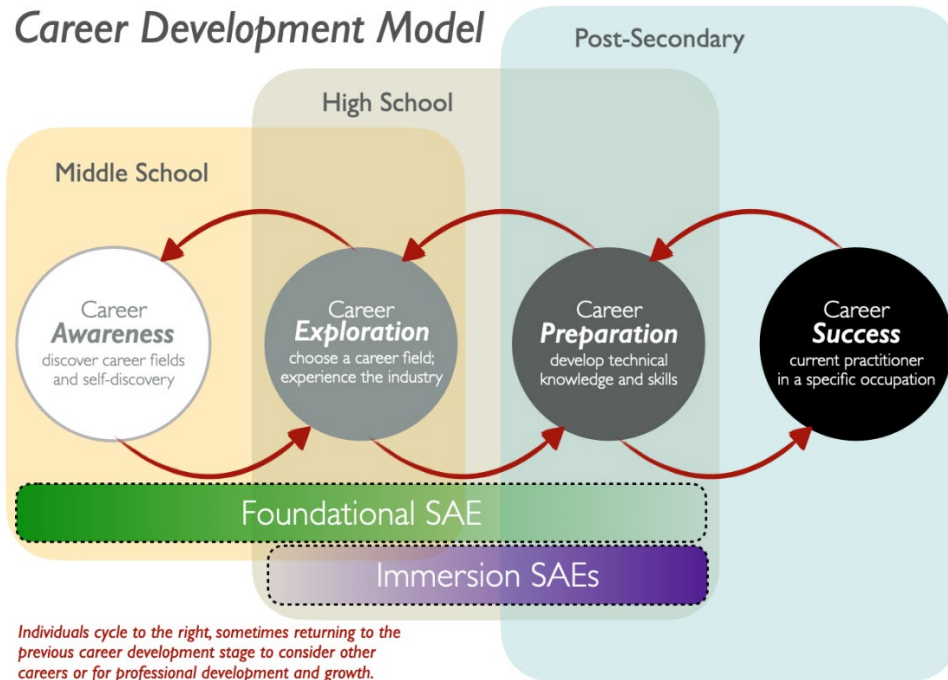
While it was recognized that Immersion SAE opportunities are beneficial in helping students prepare for a career, they were also inconsistently implemented by participating teachers. Most participants mentioned having students participate in “traditional” SAE categories, including placement and entrepreneurship. There was a desire by multiple teachers to have 100% of students in a local agricultural education program have an Immersion SAE; however, teachers recognized the difficulty in achieving such a goal. One teacher has fully embraced School-Based Enterprise as one of the new *SAE for All* categories and described the many benefits to students. This resulted in other participants sharing their desire to start School-Based Enterprises, especially as it allows for technical and interpersonal skill development while being available to any student, regardless of resources and background. Incorporating industry certifications into a teacher’s local implementation of *SAE for All* proved a unique way to integrate technical skill development and measurement into her program. Still, implementing Immersion SAE opportunities into a local program remained challenging, especially as students move in and out of agriculture courses and lose contact with the teacher for a semester or longer.

The results of this study suggest the field would benefit from additional resources being developed that allow for more in-school participation in Immersion SAEs, including Research and Service-Learning SAE categories. With the early successes of School-Based Enterprise, we recommend that additional training and the sharing of best practices be provided to more teachers in the profession. Additionally, while the Foundational SAE largely addresses difficulties related to participation by students who do not regularly enroll in SBAE courses, teachers still struggle with the issue of consistent participation in Immersion SAE by this group of students. This appears to be a continuation of one of the old SAE model’s challenges and deserves more attention for a solution that enables more students to participate in an Immersion SAE, even if they are not continuously enrolled in SBAE courses. A final recommendation is to develop tools to better assist teachers in grading SAE, especially for the service learning and school-based enterprise SAE categories, which, as new options introduced with *SAE for All*, do not have traditional record-keeping components.

To help visualize how *SAE for All* can support students in their personal career journey, I have designed a Career Development Model (Figure 3) that draws on elements from the work of Turner and Lapan (2013) and ConnectED (2021). This model integrates four stages of career development, including career awareness, career exploration, career preparation, and career success, stratified over middle school, high school, and post-secondary education. It also reflects themes three and four from this study. The Foundational SAE may be integrated into the first three stages of career development, awareness, exploration, and preparation (Theme 3), whereas the Immersion SAE options more specifically support career exploration and preparation (Theme 4).

Figure 3

A Career Development Model with SAE for All's Foundational SAE and Immersion SAEs Overlaying Three of the Four Developmental Stages



Source: Kreifels (2023).

The goal of this model is to assist practitioners and CTE leaders in considering how SAE serves as a critical experience in helping students move through the four stages of career development during middle and high school.

A limitation of this study was the inclusion of only two states. Because most of the previous *SAE for All* training was state-specific, the results may not represent how teachers in other states have experienced or perceived *SAE for All's* ability to help students in their career development. We recommend that additional studies focusing on *SAE for All* quantitatively explore teachers' perceptions of how the Foundational and the five different Immersion SAE categories help students become aware of, explore, and prepare for careers, including the assessment of specific career skills, the types of careers students are exploring, and the influence of SAE on students' career choices. Furthermore, a qualitative study that includes students as participants would shed light on how students' learning experiences affect their self-efficacy and outcome expectations and the resulting effects on their career interests, goals, and actions (Lent et al., 1994).

Ultimately, this study aimed to describe teachers' perceptions of *SAE for All* concerning students' efficacy in career development within an SBAE program. Participant data revealed that the implementation of *SAE for All* varies by teacher and school, that *SAE for All* is a method to incorporate and make Work-Based Learning accessible to more students, that the Foundational SAE assists students to become aware of and explore careers, and that Immersion SAE options can provide career preparation opportunities, though the opportunities are inconsistently implemented. The findings of this study help lay the groundwork for future research that strives to learn more about how *SAE for All* can contribute to the career success of students involved in School-Based Agricultural Education programs.

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