Journal of Agricultural Education, 62(3), 275-291
https://doi.org/10.5032/jae.2021.03275

The Agricultural Communication SAE: A Qualitative Exploration of Opportunities and Teacher Experiences

Rebecca D. Swenson[1], Troy D. McKay[2], and Garrett M. Steede[3]

Abstract

This study explores teacher perceptions and experiences related to agricultural communication supervised agricultural experience (SAE) projects. Participation in agricultural communication SAEs remains low, despite growing career and post-secondary options in this area for students. To better understand agricultural communication SAE projects and to examine potential needs for resources and support, in-depth interviews with high school agricultural education teachers were conducted. Using qualitative open coding techniques to analyze interview data, this study identified characteristics of successful agricultural communication projects and student participants, motivations to participate in agricultural communication SAEs, limitations and challenges for teachers, and resources needed. We found interviewees were using a combination of internal and external motivators to reach potential students, specifically, internal motivational factors like customizable topics and transferable skills were mentioned along with more external factors like visibility, awards, and efficiency. We also identified barriers to agricultural communication SAE projects, including a lack of familiarity with agricultural communication principles and practices among teachers, misconceptions among students about the agricultural industry, confusing National FFA guidelines, and limited community and technology resources in some schools. This research results in recommendations for increasing teacher participation, enhancing student motivation, and better supporting agricultural communication SAE projects.

Keywords: agricultural communication; supervised agricultural experience; SAE; three-circle model; school-based agricultural education; SBAE

Author Note: Rebecca D. Swenson https://orcid.org/0000-0001-9790-8303**;** Troy D. McKay https://orcid.org/0000-0002-2000-9198**;** Garrett M. Steede https://orcid.org/0000-0002-1644-2028

Introduction

The foundation of school-based agricultural education (SBAE) rests on three components, often referred to as the three-circle model: classroom or laboratory instruction, leadership experiences through FFA, and supervised agricultural experience (SAE) projects that expose students to work-based learning. Agricultural education preparation programs encourage pre-service teachers to include all three components for a comprehensive approach to learning. Yet, despite all three circles appearing equal in size within the three-circle model, teachers are often not able to give all three components the same amount of time or attention in practice (Shoulders & Toland, 2017). SAEs are valuable for student

[1] Rebecca Swenson is an Associate Professor in the Department of Agricultural Education, Communication & Marketing at the University of Minnesota, 1994 Buford Avenue, St. Paul, Minnesota 55108, boli0028@umn.edu.
[2] Troy McKay is a Teaching Assistant Professor in the Department of Agricultural Education, Communication & Marketing at the University of Minnesota, 1994 Buford Avenue, St. Paul, Minnesota 55108, tmckay@umn.edu.
[3] Garrett Steede is an Assistant Professor in the Department of Agricultural Education, Communication & Marketing at the University of Minnesota, 1994 Buford Avenue, St. Paul, Minnesota 55108, gsteede@umn.edu.

development but can be hard for teachers to fully implement (Dyer & Osborne, 1995; Rank & Retallick, 2016; Retallick, 2010). Previous research on SAEs illustrates barriers to increasing participation, including shifting demographics, changing societal attitudes about agriculture, school structures, resources, and images of agricultural education (Retallick, 2010). Other researchers suggest a need to expand teacher training to include new types of SAEs and to develop new educational resources that help engage new teachers and nontraditional students with additional SAEs (Wilson & Moore, 2007).

It is important to examine these barriers and needs for resources, for SAEs offer an early opportunity for students to explore postsecondary and career options. Project-based SAEs are designed to help students connect the community, potential careers, and the classroom. Through SAE experiences, students can explore potential post-secondary paths open to them, learn what is expected in different workplaces, and develop general skills that will help them transition into college and professional environments (Robinson & Haynes, 2011). Despite strong benefits, SAE participation overall continues to decline (Lewis et al., 2012; Retallick & Martin, 2008). For example, less than half of the school-based agricultural education students surveyed by Lewis et al. (2012) had an SAE project. At the same time, careers in some SAE areas, including agricultural communication, are on the rise (Bonnen, 1986; Doerfert & Cepica, 1991; Weckman et al., 2000). As Miller et al. (2015) writes, an "increase in agricultural communications academic programs over the last two decades is a logical result of an increased demand for agricultural communications practitioners and an increase in popularity of the discipline among college students and college-bound high school students" (p. 13).

To better support agricultural communication SAE projects and examine potential needs for specific resources, we must better understand the practices and experiences of agricultural education teachers with successful agricultural communication SAE programs. This research reports on in-depth interviews with agricultural education teachers from states across the country who have advised at least one student who was a recent national proficiency award winner in agricultural communication. Interviews generated insights on characteristics of successful agricultural communication projects, motivations to participate in agricultural communication SAEs, limitations, and specific resources needed. Most importantly, research findings suggest that agricultural communication SAEs can be an efficient way for teachers to support chapter communication, a key application for additional educational strategies that foster student motivation, and a route to build relationships and engagement with students, peers, and the community. As such, this research helps address Research Priority #4 of the American Association for Agricultural Education's National Research Agenda that outlines the need for meaningful, engaged learning in all environments (Roberts et al., 2016).

Theoretical Framework

Intrinsic motivation theory offers a conceptual framework to explore motivations and challenges among teachers and students related to agricultural communication SAEs. Intrinsic motivation theory describes how internal and external rewards can motivate behavior, and it has been applied to educational settings, teacher communication, and student behavior (Deci & Ryan, 2010). Intrinsic motivation theory describes how individual interest, learning environments, amount of challenge, skill, feelings of competence, and autonomy can affect perceptions of rewards and motivation (Deci & Ryan, 2010). For this research, intrinsic motivation theory guided researchers to look for internal and external motivations and barriers among teachers and students when considering agricultural communication SAE projects.

Previous researchers have suggested that a lack of student motivation, along with facilities, resources, and limited teacher supervision, led to the decline in overall SAE participation (Dyer & Osborne, 1995). Teachers and the FFA organization have tried to increase motivation mainly through external factors like degrees, awards, and requirements. Bird et al. (2013) discussed cases of SAE

projects in which extrinsic motivation was successfully used to initiate student SAE participation but cautioned that students should be supported to find more internal motivators like knowledge gain and career skills to sustain involvement over time. Drawing from motivational research (Ryan & Deci, 2000), researchers suggest a continual focus on "externally rewarding students' continued participation in SAEs, either through program requirements, money, or awards can condition students for the award more so than the experience," and in turn, "diminish students' internal drive for the experience" (Bird et al., 2013, p. 42). Bowling and Ball (2020) found that students in agricultural education programs are more intrinsically motivated when teachers incorporate more opportunity for student autonomy and students are given the ability to direct their learning process. They write, "If SBAE teachers truly desire to promote intrinsic motivation, they must develop and intentionally utilize strategies which will foster intrinsic motivation. Thus, they need to intentionally incorporate the students' values, goals, future aspirations, and interests into classroom and out of school activities" (Bowling & Ball, 2020, p. 218). In this study, intrinsic motivation theory and its application by other researchers served as a useful lens when developing our research questions and reviewing our data, specifically in discussions of internal and external motivators, barriers, educational strategies, and processes utilized by interviewees.

Purpose and Research Questions

The goal of this study was to better understand agricultural communication SAE projects and to identify potential teacher needs for resources and support. The following research questions guided this study:

RQ1: What are characteristics of successful agricultural communication SAE projects and the teachers, students, and programs that support them?
RQ2: What are current and potential motivators for teachers and students who participate in agricultural communication SAEs? Alternatively, what are potential limitations or challenges to agricultural communication SAEs?
RQ3: What resources exist, and are needed, to support more agricultural communication SAE projects?

Method

To answer the research questions above, in-depth phone interviews were conducted with high school agricultural education teachers who had an agricultural communication proficiency award winner in 2017, 2018, or 2019. From the National FFA list of student winners and their schools, which is posted on their website, we found contact information for corresponding FFA chapters, schools, and teachers. After eliminating duplicates, teachers who had relocated, and those without viable contact information, individual phone interviews were successfully completed with 12 high school agricultural education teachers, following best practices for qualitative research described by Dillman et al. (2014). Interviewees were first contacted via email to gain consent and schedule a time for the phone interview. Phone interviews ranged from approximately 17 minutes to close to an hour in length, with the typical interview lasting 28 minutes. Researchers generated field notes, reviewed information posted on national and state websites about agricultural communication SAEs, and digitally recorded and transcribed phone interviews.

To get a holistic view of agricultural communication SAE experiences and to help fill the need identified by Rank and Retallick (2016) for more multistate studies that describe SAE instruction, we sought input from high school agricultural education teachers in different locations and environments. Interviewees taught in a mix of rural, urban, and suburban programs, across 11 different states, in both single-teacher and multiple teacher programs. Interviewees' years of experience ranged from 3 to 36 years. Only one interviewee had a class dedicated to agricultural communication, while two other interviewees had courses in related subjects like agricultural business and leadership. Other subjects

taught by interviewees include animal science, agricultural mechanics, horticulture, forestry, dairy science, equine science, environmental science, applied biological systems, nursery landscape, and floral design. Although all interviewees said they valued and encouraged SAE participation, it was a formal requirement in about half of programs.

The interview protocol included a description of the research team, the topic, a confirmation of consent to participate, interview questions, and closing comments. Researchers followed the interview protocol refinement framework, in which interview questions are mapped onto research questions to make sure they are balanced and without key information gaps, interview questions and scripts improved to promote inquiry-based conversations, and feedback gathered prior to starting interviews to enhance reliability and trustworthiness (Castillo-Montoya, 2016). Researchers currently teach and conduct research in agricultural communication and marketing at the University of Minnesota. Because the context of this study includes larger efforts to support additional agricultural communication SAE projects and a pipeline of students interested in and prepared for agricultural communication programs and careers, interview scripts were written and reviewed for potential leading questions, and we were careful to give potential space and opportunity for descriptions of negative experiences with agricultural communication, including sharing limitations and challenges with agricultural communication SAE projects, to avoid potential researchers' bias.

We analyzed the data using qualitative open coding techniques (Strauss & Corbin, 1998). Common patterns for each research question were identified, along with quoted comments that illustrate these patterns. To strengthen the trustworthiness and accuracy of data, researchers conducted an internal audit. Specifically, different members of our research team reviewed data, interview guides, emergent themes, and analytic memos multiple times to ensure themes were supported across multiple interviews. We involved multiple researchers in checks to make sure quoted material accurately represents multiple responses and reflects interviewee intentions. Important insights are discussed below.

Findings

Several findings with important implications for agricultural communication SAEs emerged from our interviews. Overall, interviewees saw SAE projects as a good fit for highly motivated, nontraditional, and driven students, and they characterized good agricultural communication SAE projects as those that integrated multiple channels of communication and demonstrated real world impact. Teachers were motivated to support agricultural communication SAEs projects because they were viewed as efficient, customizable for the student and chapter, accessible for many students, highly visible within the community, and allowed students to develop transferable skills. School and rural resources limited the potential for additional agricultural communication SAEs, as well as confusing guidelines from National FFA and a general lack of awareness about agricultural communication opportunities. Interviewees wanted additional resources to better support agricultural communication SAE projects, including examples and templates, additional connections with peers, professionals and experts, and more communication curriculum. These key insights are described in more detail below.

Characteristics of SAE Projects

Teachers did confirm they have had few agricultural communication SAEs and that overall state and national participation in agricultural communication has been low, as one said, "there's been at least three or four of the last eight years that our student was the only one on stage because nobody else filled out the application." Despite low participation, teachers were impressed by the few agricultural communication SAEs they did supervise. Projects were often completed by high-achieving students, highly integrated across communication channels, applied to real-world situations, and student-driven.

Completed by High-achieving Students in a Variety of Classes

When asked to describe students that have been a good fit for agricultural communication SAE projects, interviewees used adjectives like impressive, skilled, successful, hard-working, ambitious, and trustworthy. Teachers looked for students who had demonstrated skill in speaking, writing, leadership, or organizing activities. As one educator said, "Ultimately, those students, you can pick them out. They might be that quiet student sitting in the back, but you can just see that potential and you just start setting them up." Others found that agricultural communication SAEs were another way to encourage continued growth for some of their high-achieving students, for "when you get kids that are interested in [communication and leadership aspects of FFA], you have to push them to expand on that."

Teachers found these students within their own classes by identifying students who are good at giving reasons during livestock judging, have taken pictures for school or FFA activities, have competed in the agricultural communication CDE, are chapter reporters, or were middle school leaders. Because they were already engaged in leadership and communication activities, members of officer teams were often encouraged to pursue agricultural communication SAE projects, because the work lines up well with officer duties.

Agricultural communication SAEs were also another way for teachers to engage more "nontraditional" students, who did not have previous experience with agriculture. Interviewees described reaching out to students involved in the yearbook, with a strong social media presence, enrolled in higher-level English classes, athletes, or writers of the student newspaper. Teachers sought out these students and tried to connect them with writing or speaking opportunities to see if agricultural issues or FFA would be in their "wheelhouse." As one interviewee explains, "What I've looked for is what type of students have creativity. That is, good writers, good speakers, good communicators that are already doing those things, and then try to get them invested into documenting that with an SAE." These students might not necessarily be interested in a plant or animal-based SAE, so this was an alternative for them, especially within school based agricultural programs that want all students to have a SAE project. However, one educator cautioned against limiting agricultural communication SAEs only to nontraditional agricultural students: "I'd also like to see some of the traditional ag students take it up too, because who's better to tell the story than somebody who's living the story?"

Projects were Integrated Across Communication Channels and Applied to the Real World

Interviewees described a great variety of projects, which were often integrated across communication channels and applied to real-world communication challenges. Students wrote newsletters, created social media content, organized events, sent publicity materials to local newspapers, hosted local radio spots, conducted interviews for local television stations, wrote magazine columns, created videos, took pictures, built websites, presented at organizational meetings and in classrooms, designed flyers, and hosted stakeholder panels and meetings. Instead of being a single activity, students sustained communication over these channels and combined them to solve a communication challenge. Often content was connected to FFA and agricultural classroom activities, but for some schools, students worked for an outside organization including farm bureaus, commodity organizations, small businesses, conservation organizations, lake associations, trade associations, farm unions, county fairs, or farmers markets. One educator describes a particular student's project to illustrate,

> As a freshman, she started writing newsletters each month for our chapter. She also did newsletters that got published in our local newspaper that covered all of our chapter activities. And we had a local television station at the time and she did interviews with local ag businesses

> in our community. They ran little interviews on our local news channel. It was a good project for her.

Projects were Highly Student Driven

A consistent message from interviewees was that their agricultural communication SAEs were highly student-driven. Interviewees described a strong student role in pursuing agricultural communication SAEs, setting up communication channels, and building connections. Many teachers said students were already engaging in communication activities and their role was to simply connect students to the SAE application and documentation process. A few teachers mentioned students had been inspired by national level FFA experiences and had requested to do communication work when they returned. Many teachers described students who were proud of FFA chapter successes and wanted to raise visibility of their activities, while others described students who wanted to maintain connections or create more community with peers. Interviewees described students who were driving connections with businesses and organizations as well. As one teacher said,

> Those are definitely all on him. He is a very driven individual and he has put himself in some really good opportunities to meet some really great contacts that have led to other contacts. He probably would have done a lot of this had he not even been in FFA, but we were a catalyst to help showcase that a little bit more.

Other teachers had a stronger hand in helping foster connections but maintained,

> It is definitely student driven. Anything that they're interested in, or if they don't have an opportunity and it's something they're really interested in, then we try to help find those opportunities when we can. Whether that's pairing them with a business, putting them in workplace learning or different programs that we have throughout the school. We're able to do a little bit of that. But a lot of it is student-driven.

Motivations

Motivation 1: Customizable to Meet Student Interests

Interviewees said agricultural communication SAEs were flexible and customizable which allowed students to pursue their unique passions, both in terms of specific types of communication - whether it was speaking, social media, or design - and which particular sectors of agriculture they might be passionate about. Even if it wasn't apparent to students, the wide breadth of the agricultural communication field helped many find a fit. It was important to find the right alignment with student interests, according to teachers, so they would put the work in and stay engaged in classroom activities. One teacher said, “if they don't care about animals, then I obviously don't want them taking care of animals. I had a girl who told me her interest is photography and she ended up getting a placement with the county fair taking pictures.” Finding that passion was hard though, and often just came down to the instructor, the student, and the work they could put in to explore that student's interest.

Motivation 2: Efficiencies for Students and Teachers

Interviewees also admitted they were motivated to have agricultural communication SAEs because they were efficient for educators. Agricultural communication projects were easy to supervise, did not require site visits during summer months, and helped maintain chapter communications. When they could implement a cohort model for agricultural communication SAEs, interviewees also found they could leverage peer-to-peer teaching among students. Overall, teachers agreed, "Ag comms is probably one of the easier [SAEs] compared to livestock and stuff, because keeping track of animals is a lot harder." This is because teachers were not required to head out and visit each site in person and

could meet in person or over the phone individually with students. Some interviewees said this was great, and at times, challenging:

> I mean, it was easier in some aspects because what they are doing is more portable, instead of say a livestock project or something like that. But also, I mean, you're not able to document all the time. You're not there when they're doing everything. So, I think it was challenging in that aspect, as you're relying more on their records to be done completely, and then verifying the products.

Agricultural communication SAEs were also one way that teachers maintained their chapter communications. FFA chapters often had a website, a Facebook page, Instagram, and/or Twitter; the students who built and maintained these channels used this communication as part of their SAE projects. Often chapter reporters filled this role and completed their officer duties and a portion of their SAE requirements by working in an unpaid role as chapter communication specialist. Interviewees said they found that making chapter communication peer-driven also often strengthened communication flow from students to peers and from students to parents, which saved teachers time. One interviewee said,

> What we've done is take something off our plate by giving it to a kid. It alleviates work for us. People sometimes will ask me, how do you do all this? And I'm like, I don't. I make the kids do it. I don't have time. There are things that a kid should do because it takes something off of our plate.

Although some noted that it wasn't totally off their plate:

> I have to do some editing a lot of times because some of those kids get pretty wild ideas in the newsletter. Some of them are pretty creative, and it's pretty funny, and it turns out to be a really good idea. But for some, you gotta put the skid on just a little bit. It's not hard to supervise them though. It really isn't.

Interviewees found the more they could align curriculum and SAE work, the better, and they advised new teachers who might be interested in encouraging new agricultural communication SAE projects to first build it into officer work and class. In addition, leveraging a cohort model helped teachers more easily support and sustain agricultural communication work. One interviewee talked about having students stay with agricultural communication SAEs from freshman to senior year:

> I have one for each grade level, so they can work together. That way my senior is training my ninth grader. And so it's like a continual thing, a constant flow of kids constantly doing ag comm. And so the senior is the expert. They're the ones that are well versed and you know, posting and they learn all about hashtags and things like timing. Then they teach my ninth graders, and it's just a cycle.

Motivation 3: Students Gain Transferable Skills Important to Future Success

Networking, writing, speaking, interpersonal communication, media literacy, visual design skills, strategy, professionalism, and social communication were all skills that interviewees mentioned that students gained from completing their agricultural communication SAE projects and that would be valuable to them in the future regardless of what career path they pursued. As one teacher said,

> If you can write an article for a newspaper and you can write an article that goes on social media, you can certainly write a paper for college English class. I think that core skill development is important because everybody's going to need reading, writing, and all kinds of communication skills.

Another teacher shared feedback they've heard from students.

> I really think [agricultural communication SAEs] challenge them. One student called me a couple of times when she was in college and she said she wanted to thank me again 'for making me do this and making me do that because it prepared me for my college classes, my honors

> project, my group project. I had to do all of the speaking, because no one else in my group had ever spoken in front of people before. So, thank you.' And one student told me when she interviewed for optometry school, she was prepared for that because of FFA. That's great, even though I know she'll never work in any field of agriculture.

Interviewees also mentioned that agricultural communication SAEs allowed students to be better prepared for any type of journalism or business marketing career, "What'd you do in ag communications? It's essentially what you do in any other communications type area. So, that's the big selling point. It really prepares you for more than just one end, unlike a lot of SAEs."

Motivation 4: Accessible for Students

Agricultural communication SAEs were accessible for students regardless of their land resources and worked well for students who did not live on farms. One interviewee explained, "Even in rural areas, some students don't have an opportunity [for other SAE projects] that require land or resources. But all students could do ag communication SAEs, where they're creating a blog or writing different posts and sharing it."

Some teachers found the agricultural communication SAEs were also good for students with limited time and involved in many activities. One educator said,

> One of the nice things is it's doable for people who have limits on time. If you have a student that's in other activities, they may not be able to have to hold that traditional after school job. Even somebody who's in sports or musicals or that kind of stuff, they can work for two hours on a Saturday when they're free, or they could work on it on the bus on the way to a sports event. It can work for that population of super busy people.

Motivation 5: Visible Among Peers and Community

Teachers said students were motivated to complete agricultural communication SAE projects because their work was highly visible among their peer groups, within the school community, and in local businesses. Students were excited to see their followers grow and to make new connections. For example, an educator described a student who returned from an FFA trip and was very motivated to stay connected with everyone. As part of their SAE project, the student started a national FFA ag chat Facebook group, and was motivated to stay with it due to its quick growth and expansion to 5,000+ people. This really helped get their buy-in to all kinds of FFA activities, as one educator explained, "Students think it's cool they get to do social media accounts. They have control and take ownership in it. They're often like, 'Hey, we got 15 likes!' or 'we got two new followers!' They get excited about that stuff." It was also important to students to see real-life outcomes and to showcase peer success. One educator said,

> Deer hunters association, those conservation organizations, they're always looking for young people and how they can get involved. And they are trying to get the word out about something that they're doing, a project that's coming up or it might be related to some conservation type activity they're attempting to promote. When it becomes a real project with real impact, it becomes more meaningful.

Teachers were also motivated by this visibility, for agricultural communication projects helped increase the prominence of FFA activities within the community. Interviewees talked about using agricultural communication SAE projects to help organizations and local media understand FFA and be more aware of current activities and successes. One teacher said,

> You've got to get your name out in that community and you've got to get what you're doing out in that community. I mean, it's a joke here. Sometimes I'll go somewhere, and I'll sit down, and

> somebody says, 'well, I just read the [newspaper name] and two thirds of it's about FFA again.' And I'm like, 'yeah, isn't that awesome?'

Similarly, another educator shared that the agricultural communication SAE allowed their school to showcase both chapter activities and display student work directly to the community, "Our newspaper is now a good partner, and that was a struggle. Now, they've been letting us put an article in once a week, if it is a thing that the kids have written."

Limitations

Limitation 1: Lack of Familiarity with Agricultural Communication

Interviewees consistently described the lack of familiarity with agricultural communication among students and peers as the largest barrier in encouraging additional agricultural communication SAE participation. Teachers reported they aren't as comfortable encouraging agricultural communication projects compared to other SAE projects, because they aren't always familiar with options, best practices, careers or with communication channels in general. It also wasn't top of mind for teachers when students were looking for a project, as one said simply, "it's probably something we just don't think about." Another interviewee explained, "we're not thinking about it as an option. Until it presents itself and you're like, 'Oh hey, yeah, this is great.'" Interviewees stressed that agricultural communication was not part of their teacher training and that made them feel unprepared to lead students through these projects, as one explains,

> Some of it may be in training for us as a teacher. I was trained in the plant sciences. My background is in horticulture and turfgrass, so I didn't take a lot of communication classes. I took a class on marketing but I really didn't do much in communication. So, it's a struggle with me sometimes to think about those ideas and make those connections.

When teachers aren't comfortable, it can be challenging to delegate work and trust students to lead the charge on very visible communication platforms. This is necessary for busy teachers, as one said,

> If I wanted to get things done at first, I just did it and then I realized, oh my gosh, I cannot do this because I'm making monsters that won't go away, because guess who's doing all this? It really should be student-based. So I think that's a barrier: you've gotta be able to effectively delegate and then follow up.

Even for teachers who said they were once comfortable with their knowledge of agricultural communication, they were now challenged to keep up because, "how we communicate is so different today than it was just five years ago. I think the key is using new methods of communicating and letting the students do it. And that can be a challenge."

Students were often unaware of agricultural communication options and benefits, according to interviewees, and teachers wanted better ways of showcasing potential projects. Although communication, especially social media, is top of mind for students, students often did not make the connection from personal use to how to leverage communication channels on behalf of businesses, educational issues, or to advocate for agriculture. One educator explained, "Kids just don't know that's even a thing. You can get a degree in ag comm and really work in any industry in agriculture and make a good living. I don't know that kids understand that."

Limitation 2: Narrow View of Agriculture

Teachers said stereotypes of what agriculture includes also limits participation in agricultural communication SAEs among their students. As one interviewee said, "I think there's still that mentality that FFA and ag education are just for farmers. I've worked really hard to not have that perception. It is a backbone, but we are so much more than just that." The lack of familiarity with the breadth of the agricultural industry also can limit partnerships and networks among educators, as one interviewee explained, "Teachers here are super supportive of our program and would push kids our way, but with the farm community getting smaller, I think a lot of people just forget that kids might be interested."

Agricultural education teachers were also working against assumptions that SAE projects must involve plants or animals, and they said students and peer teachers aren't always able to see how agricultural communication fits into the SAE process. As one interviewee said, "I know a big stereotype for my kids is that you have to have an animal to be in FFA. So, I think more [promotion of agricultural communication SAE projects] could bring a whole new kind of perspective to our program." Another educator explained,

> We have a hard time getting some of the kids who might be interested in [agricultural communication] because there's always a misconception of what agriculture really is. For example, we'll have a food science class and we'll talk about designing packaging and how you're communicating different things with packaging. And they go, 'why didn't I ever even think about that as part of agriculture?' They don't always make the connection, and if the students don't make the connection, the parents don't make the connection.

Limitation 3: Confusing National FFA Guidelines

Interviewees pointed to a lack of clarity about how to distinguish agricultural education and agricultural communication SAE projects as a major barrier to participation and relayed frustration at being disqualified at the state level and national level for blurring the line between education and communication. Teachers wanted more direction on how to separate these projects or for National FFA to combine these categories. Teachers also wanted more guidance about which hours could be utilized for agricultural communication SAEs. Other teachers described frustration at being criticized for SAE projects that were deemed not adequately agriculturally focused. These barriers are described in detail below.

Blurred Lines. There seemed to be quite a few projects, especially those involving commodity groups, that blurred the line between education and communication. Interviewees acknowledged that many of the communication and advocacy activities pursued by students were connected to the school environment, because FFA, peer students, teacher stakeholders, and classrooms are the most readily accessible content and target audiences for high schoolers. Teachers had students who had done projects that were "unbelievable" in their mind and did well at the state level, but then they were "disappointed" at the national level, because feedback received indicated that the project needed to be more agriculturally focused or more communication focused. Interviewees wished for more clarity and "cleaned up" guidelines for teachers and students. One interviewee explained, "Even looking at my own student's projects, it is blurred. Is this really ag comm or is this really ag ed? Even within ag comm, you've often got an educational portion. I think those categories can be very blurred."

Ag Enough? There were also blurred lines between agricultural communication and just communication. Teachers struggled to know how "ag" student projects had to be, for example, would STEM focused camps or rural journalism stories be acceptable? One interviewee said, "When we start looking at some of the degrees and all the kids, it's like okay, is this actually an agricultural field? If

they're working for a newspaper, is that agricultural communication or is that just journalism?" Another interviewee said,

> Here they really push it on to us that you need to keep the 'A' in SAE. That's really hard for me because I want every kid to have a chance, and National FFA is saying, you know, if a kid wants to be a nurse, you should let them shadow at the hospital. At Nationals this year, one of the top four finalists was a young lady that worked for a magazine company that sold playgrounds. It was really disheartening to lose to someone that is not ag. We're constantly told it's got to be ag, it's gotta be ag, it's gotta be ag. And I almost wish that they would broaden the category to just communication.

Income. Teachers also struggled with the income portion of SAE projects, especially for students who were getting their State or American degrees. One interviewee said their students "didn't get an income from any of his work and I think that's probably one of the biggest challenges I could see." Students are motivated by money, explained one interviewee, and there isn't a lot of opportunity for students to make money from the agricultural communication SAEs. Teachers didn't know how to help students make money from their communication work and wished they could help students find paid opportunities.

Separation of Circles. It was hard for teachers to figure out how to separate the three circles for agricultural communication SAEs, because school time and business hours coincide, there is quite a bit of overlap between officer duties and SAE work, and many of the communication activities that students were engaged in were connected to the school. As one interviewee explained, students weren't supposed to count school hours, which was a challenge, as well as transportation, "For my student a lot of opportunities were during the school day. It was difficult for him to figure out how to get those opportunities, because most people are working eight to five."

Limitation 4: Lack of Rural Resources

Agricultural education teachers also said participation in agricultural communication SAEs was limited by resources and connections available in some rural communities. As one interviewee said, "Especially in a small rural town like us, you know, it's only a thousand people here, how much can you do with ag communications? I mean, we don't have television stations or radio stations or anything like that. " Another said, "the market for [ag com careers] in our area is low. We don't have a lot of places that are necessarily hiring communications people at least that I know of."

Because of the lack of agricultural communication opportunities in some rural areas, teachers explained that students often resorted to focusing on FFA activities, but then, "so many of [the SAE projects] are the same. I would bet all four finalists maintain the Facebook page, the website, any other social media that their chapter did, some promoting, and creating brochures for the banquet." Teachers felt good about this opportunity for students even if it didn't create a "stand out" SAE project.

Limitation 5: Few School Resources

Not specific to agricultural communication SAEs, but interviewees said that limited classroom time, limited access to technology over the summer, and limited teacher contracts hurt SAE programs in general. One interviewee explained,

> The sheer number of teachers that are getting cut in the summers down to shorter contracts makes it almost impossible for teachers to get out and continue to invest in the students' SAE projects and build them, like in the past. I mean, when my dad started teaching ag, the majority of ag teachers were on 12-month contracts. That has a direct relationship to the decline in the amount, and in the quality, of SAE programs.

Resources

Additional Connections with Peers, Organizations, and Universities

When asked what resources were vital for agricultural communication SAEs to be successful or to increase, teachers said connections, especially with those within their community, were important. Teachers needed to reach out more to local businesses, organizations, and media, so their students had access to potential projects and different perspectives. One explained that teachers needed "some ways that you can connect locally and even lists of organizations that might provide opportunities to students. It would be good to know how you would contact those organizations, or how the students could get involved with internships. I think that's key." Interviewees acknowledged that it was hard for busy teachers to meet the right people. Others described connections within their school community as a vital resource that they need to maintain or increase,

> We definitely need to connect with English teachers. We have a program here with our English department, and they run a writing clinic. On the writing side, students can take anything; it doesn't have to be a school paper. It could be an application, a news release, it could be whatever. We need to partner with teachers in other areas too. So, if you're trying to develop a flyer or something attention-grabbing, you find an art department or art teacher or graphic arts teacher, and get connected. That's worked out well for us.

Others suggested that more connections with the local universities would be helpful. One interviewee said, "I think more workshops and connections with opportunities that are beyond high school are needed. That's where things get lost and they don't always make the connection with post-secondary."

Templates and Examples

More than anything, teachers wanted examples that they could share with students to get them excited about agricultural communication SAEs. Specifically, interviewees wanted lists or an idea bank of what a student could do for a project, in order to spark ideas that might make sense for their community and school. They also wanted successful ideas or templates to support internship work, social media posts, and communication plans. Interviewees also mentioned needing more clear guidance from National FFA on what “counts” as an agricultural communication SAE, and more directions and communication resources for chapter reporters. Others wanted more idea sharing from teacher-to-teacher. For example, one interviewee said,

> The biggest thing that's been a support to me is networking with teachers, especially in terms of SAEs. I want to know 15 different ideas that fall into a category. Here's a chapter reporter that is doing this. Here is this guy working with 4-H that's doing this. This person's writing this blog. Because there are teachers that have these talented students in their classes and they've just not made that connection to potential SAEs. I think that is a springboard for SAEs more than anything, just sharing SAE ideas.

Another teacher echoed these sentiments but said that the idea sharing could be more specific and focused on best practices in implementing SAEs and completing the paperwork: "We need to show the simplicity of keeping records and filling stuff out and how it can be easier. That's what I want more than anything: sharing different ideas that work for different SAEs."

Curriculum and Resources

Teachers wanted guidebooks, better textbooks, and more resources to support agricultural communication SAEs. They also wanted a communication curriculum that they could easily integrate into their courses throughout the year. One interviewee said, “If I have a student doing YouTube videos, what are some of the guidelines? How do you do it? Those kinds of things. Easy to create examples of different possibilities, and then here's a little bit of how-to curriculum.”

Teachers especially wanted more information and curriculum for agricultural communication career units. One said they needed help when breaking down the major career paths within agricultural communication, including titles, daily responsibilities, and organizations, so that “kids understand that it's not just newspapers and commercials. Because I think that's what a lot of kids think of when they think of communications."

Many mentioned a need for mini lessons that they could use to increase their own knowledge and then share directly with students. These mini lessons do not have to be extensive. As one interviewee said, they’d like simple documents that could be used to discuss how to have an effective and positive social media presence: "I had a friend that told me about the certain times to post and the hashtags to use. I would love to have a one-page document on how to be successful in social media to share with students." Another said, "it doesn't have to be anything crazy, it could be like a one-minute video."

Teachers also wanted tutorials for the Adobe video and design software as well as examples of free or inexpensive programs that could be used as alternatives. One said, "teacher resources on how to use some of the different programs is needed. I know I could spend my evenings learning how to do Adobe Photoshop and all that stuff, but I definitely don't have that kind of time."

Support from Communication Experts

Teachers also want to hear more from communication experts. This includes universities, communication professionals, and fellow educators that have done outstanding agricultural communication work. One interviewee said,

> In the last couple of years, I started teaching a dual credit class with the University of [state]. It's an agricultural leadership and communication introductory course. Kids can take it for dual credit and I've got one student enrolled in that right now. So that's where I get my curriculum from. The [professor name] there at the [University] is really good about helping us out and giving us new things to teach.

Discussion, Conclusions, and Recommendations

Teachers interviewed for this research found value in agricultural communication SAEs and offered excellent ideas on how to further support these projects in SBAE classrooms. According to our findings, especially in themes connected to characteristics and motivations, agricultural communication SAE projects provided an opportunity to engage high-achieving students, allowed them to build foundational skills, and offered significant visibility and benefits to students, educators, FFA programs, and community organizations. Interviewees described agricultural communication SAEs as an efficient way to approach student learning and a solution for FFA chapter communication work that can be implemented year-round, alleviating some of the time and seasonal burdens of SAE and FFA advising responsibilities (Torres et al., 2008).

A key conclusion from these findings was interviewees were using a combination of internal and external motivators to reach potential students. Internal motivational factors like customizable topics and transferable skills were identified as themes in our findings along with more external factors like visibility, awards, and efficiency. This research offers an opportunity to build upon insights by Bowling and Ball (2020) and their recommendation that teachers work to more intentionally utilize strategies that promote intrinsic motivation into SBAE programs. Our findings suggest that agricultural communication SAE projects might be a successful application site for teaching strategies that enhance intrinsic motivation, for example, they might be particularly suited for teachers who want to demonstrate how SAEs are closely tied to educational development and career interest, give students additional autonomy, and make projects personally meaningful for students and their community. Researchers have pointed out that the most important aspect of an SAE project is often for students to identify an area of passion and for teachers to give students the autonomy to develop projects around that interest (Baker et al., 2012; Bird et al., 2013; Bowling & Ball, 2020; Reeve, 2009). Because our findings identified agricultural communication SAEs as particularly student-driven, flexible, integrated, and tailored, teachers might foster additional intrinsic motivation and student engagement into SBAE programs by incorporating agricultural communication SAEs.

High school agricultural education teachers seek to develop connections with students and build community; further, relatedness, including connections with peers and adults, is a key way teachers foster student motivation and engagement (Bowling & Ball, 2020). Themes identified within our research suggest that agricultural communication SAEs might offer a particularly good opportunity to increase relatedness among students in SBAE programs, given the scaffolding of learning and peer cohorts interviewees described, which were created to share agricultural communication skills and responsibilities between students of different grades. There is also the potential to use the visible nature of agricultural communication SAEs and the connections built through communication with school leaders, peers, organizations, and other community members to help students develop beneficial relationships, and in turn, enhance their motivation and engagement.

These findings also echo concerns of previous researchers who suggest that teachers would benefit from additional professional development, so they are comfortable and familiar with all SAE areas (Roberts & Dyer, 2004; Wolf, 2011). As described in our findings, especially within themes connected to limitations and resources, interviewees expressed interest in additional support and particular resources for agricultural communication SAEs. These findings suggest that examples, curriculum, connections, and templates might help increase teachers' self-efficacy and feelings of confidence when suggesting and supervising agricultural communication SAEs.

Recommendations for Research

This research was limited by the small sample size and focus on teachers. Our findings could shape the development of a larger survey that gathers input from additional educators, including those who have not ever had an agricultural communication SAE project, to better understand barriers to getting started supporting students with agricultural communication interests. Future research should also explore benefits, motivations, and challenges of agricultural communication SAE work from students' perspectives. It would also be valuable to conduct research that explores the perspectives of organizations, who have offered - or might have the potential to offer - internships and other opportunities for high school students. Further research should also explore the impact of additional agricultural communication resources for educators. A content analysis of SAE materials and applications can offer additional insight about best practices, potential approaches, and resources needed to support successful agricultural communication SAEs. It would also be valuable to interview teachers with agricultural education proficiency winners to compare characteristics, motivations, limitations, and resources needed to support those projects.

Recommendations for Practice

Given some of the barriers and desired resources described by teachers in this study, university programs might consider adding agricultural communication curriculum into SAE courses or other content areas for pre-service teachers. There might be additional opportunities for partnerships between colleges and high schools to build dual credit introductory agricultural communication courses or to create additional resources for secondary educators. Teacher organizations might consider additional ways to lift up successful SAE projects and increase idea exchanges so educators can share more best practices. Because our research findings found national guidelines were a significant barrier for participation and led to a high amount of frustration for teachers, the National FFA Organization should look closely at agricultural communication and agricultural education SAEs to increase clarity, eliminate overlap, and make sure requirements create a clear, reasonable, and equitable path to recognition and success for students.

It is the role of teachers to help students develop strong skills and become aware of the vast array of opportunities available to them. This exploratory research offers initial recommendations for ways to better support teachers as they work to integrate new agricultural communication SAE projects and opportunities into their programs and enhance student motivation and engagement.

References

Bird, W.A., Martin, M.J., & Simonsen, J.C. (2013). Student motivation for involvement in supervised agricultural experiences: an historical perspective. *Journal of Agricultural Education, 54*(1). https://doi.org/10.5032/jae.2013.01031

Bonnen, J.T. (1986). A century of science in agriculture: Lessons for science policy. *American Journal of Agricultural Economics*, 68(5), 1065-1080.

Bowling, A.M., & Ball, A.L. (2020). Supporting students' psychological needs and motivation within school based agricultural education programs: a mixed methods study. *Journal of Agricultural Education, 61*(2), 206-221. https://doi.org/10.5032/jae.2020.02206

Castillo-Montoya, M. (2016). Preparing for interview research: The interview protocol refinement framework. *The Qualitative Report*, *21*(5), 811-831. https://nsuworks.nova.edu/tqr/vol21/iss5/2

Deci, E.L. & Ryan, R.M. (2010). Intrinsic motivation*. The Corsini Encyclopedia of Psychology*. https://doi.org/10.1002/9780470479216.corpsy0467.

Dillman, D.A., Smyth, J.D., & Christian, L.M. (2014). *Internet, mail and mixed-mode surveys: The tailored design method* (6th ed.). John Wiley & Sons, Inc.

Doerfert, D. & Cepica, M. (1991). The current status of agricultural communications/journalism programs in the United States. Center for Agricultural Technology Transfer (CATT), Texas Tech University, Lubbock.

Dyer, J. E., & Osborne, E. W. (1995). Participation in supervised agricultural experience programs: A syntheses of research. *Journal of Agricultural Education*, *36*(1). https://doi.org/10.5032/jae.1995.01006

Dyer, J. & Osborne, E. (1996). Effects of teaching approach on problem solving ability of agricultural education students with varying learning styles. J*ournal of Agricultural Education, 37*(4). https://doi.org/10.5032/jae.1996.04038.

Lewis, L. Rayfield, R., & Moore, L. (2012). Supervised agricultural experience: An examination of student knowledge and participation. *Journal of Agricultural Education, 53*(4). https://doi.org/10.5032/jae.2012.04070.

Miller, J.D., Large, M.M., & Rucker, K.J., Shoulders, K., & Buck, E.B. (2015). Characteristics of U.S. agricultural communications undergraduate programs. *Journal of Applied Communications (99)*4. https://doi.org/10.4148/1051-0834.1063.

Rank, B.D. & Retallick, M.S. (2016). Synthesis of contemporary SAE research 1994-2014. *Journal of Agricultural Education, 57*(4). https://doi.org/10.5032/jae.2016.04131.

Reeve, J. (2009). Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. *Educational Psychologist, 4*4(3), 159-175.

Retallick, M.S. (2010). Implementation of supervised agricultural experience programs: The agriculture teachers' perspective. *Journal of Agricultural Education, 51*(4). https://doi.org/10.5032/jae.2010.04059.

Retallick, M.S. & Martin, R.A. (2008). Fifteen-year enrollment trends related to the three components of comprehensive agricultural education programs. *Journal of Agricultural Education, 49(*1). https://doi.org/10.5032/jae.2008.01028.

Roberts, T. G., & Dyer, J. E., (2004). Characteristics of effective agriculture teachers. *Journal of Agricultural Education, 45*(4), 82-95. https://doi.org/10.5032/jae.2004.04082

Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Department of Agricultural Education and Communication.

Robinson, J.S. & Haynes, J.C. (2011). Value and expectations of supervised agricultural experiences as expressed by agricultural instructors in Oklahoma who were alternatively certified. J*ournal of Agricultural Education, 52*(2). https://doi.org/10.5032/jae.2011.02047.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new direction. *Contemporary Educational Psychology, 25*(1). https://doi.org/10.1006/ceps.1999.1020

Shoulders, C. W., & Toland, H. (2017). Millennial and non-millennial agriculture Educators' current and ideal emphasis on the three components of the agricultural education program. *Journal of Agricultural Education, 58*(1), 85-101. https://doi.org/10.5032/jae.2017.01085.

Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Sage Publications, Inc.

Torres, R.M., Ulmer, J.D., & Achenbrener, M.S. (2008). Workload distribution among agriculture teachers. *Journal of Agricultural Education, 49*(2), 75-87. https://doi.org/10.5032/jae.2008.02075

Weckman, R., Witham, D., & Telg, R. (2000). Characteristics of agricultural communications undergraduate programs: Findings from a national survey. US Agricultural Communicators' Congress, Washington, DC.

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

Wolf, K. J. (2011). Agricultural education perceived teacher self-efficacy: A descriptive study of beginning agricultural education teachers. *Journal of Agricultural Education, 52*(2), 163-176. https://doi.org/10.5032/jae.2011.02163