

Autonomy-Supportive Teachers: A Case Study of Ohio Student-Directed SBAE Programs

Hannah C. Parker¹
Amanda M. Bowling²

Abstract

Educators recognize the importance of intrinsic motivators. However, facilitating student autonomy within the classroom poses more challenges, when historically, motivators have been extrinsic (grades, rewards, deadlines). School-based agricultural education (SBAE) offers a unique educational context as compared to other subject areas to provide autonomy-supportive teaching. This study aimed to explore the ways Ohio SBAE teachers used ASIB to support student intrinsic motivation and internalization. This qualitative case study was bound by Ohio SBAE teachers who express student-directed, autonomous programs. Six teachers participated in semi-structured interviews and three teachers were purposively sampled for program observation and SAE document analysis. Three themes emerged from the data: (1) talk the talk and walk the walk: modeling program culture of autonomy, (2) I believe I'm encouraging student autonomy, but how can I be sure? and (3) highlight individual growth over award recognition. SBAE teachers are encouraged to model autonomy-supportive behaviors to establish a program culture of autonomy. SBAE teachers should foster individualized opportunities for students to support motivational outcomes. Further research should include longitudinal qualitative studies exploring the evolution of autonomy supportive behaviors. In addition to longitudinal studies, studies should be explored that take in students' perspectives on teacher autonomy supportive instructional behaviors.

Introduction

Teachers aim to foster motivationally supportive classrooms (Reeve & Cheon, 2024) through various teaching strategies and approaches (Aelterman et al., 2019). Autonomy-supportive teaching answers the call of teachers who seek to enhance students' effort (Aelterman et al., 2019), intrinsic motivation (Reeve & Cheon, 2021), engagement (Patall et al., 2022), skill development (Jang et al., 2010), academic achievement (Vasconcellos et al., 2020), and well-being (Kleikorres et al., 2023). In the educational setting, students seek autonomy to fulfill a psychological need, further supporting their ability to self-regulate in and beyond the classroom. (Aelterman et al., 2019). Further, teachers recognize the importance of autonomous motivation yet also acknowledge the challenges posed to supporting students' interests (Reeve, 2009).

Facilitating opportunities to support student autonomy within the classroom presents challenges to teachers, especially when the motivators have historically been conceptualized as external (e.g. grades, rewards, deadlines). Further, teachers take on approaches that are not autonomy supportive and controlling in nature. Reeve and colleagues (2004) describe controlling instruction as a way for teachers to pressure students into feeling, behaving, and thinking in a certain way to control classroom behavior and predict academic outcomes. Further, controlling instruction

¹ Hannah C. Parker is a Full-Time Lecturer of Agricultural Education in the Department of Agricultural Education and Communication at the California Polytechnic State University, 1 Grand Ave, San Luis Obispo, CA 93407, hparke07@calpoly.edu. <https://orcid.org/0000-0002-3290-3840>

² Amanda M. Bowling is an Associate Professor of Agricultural Education in the Department of Agricultural Communication, Education, and Leadership at The Ohio State University, 2120 Fyffe Rd., Columbus, OH 43210, bowling.175@osu.edu. <https://orcid.org/0000-0002-2526-725X>

does not allow students to experience control of their own educational outcome and experiences. Reeve and colleagues (2004) further suggest teachers can take an approach that supports students' need-fulfillment of autonomy that supports students' interests and internalization, which they have called autonomy-supportive instructional behaviors (ASIB) (Reeve et al., 2004).

School-Based Agricultural Education (SBAE) reflects a three-circle model; classroom instruction, leadership development (FFA), and work-based learning (Supervised Agricultural Experience) (National FFA Organization, 2022) and has encouraged student-directed experiences since the establishment of The National FFA Organization (FFA) in 1928 (Stimson, 1915 as cited in Smith & Rayfield, 2016). Student-directed experiences in SBAE are often attributed to Supervised Agricultural Experiences (SAEs) (Smith & Rayfield, 2016) and Career Development Events (CDEs) (Ball et al., 2016). In theory and design, SBAE programs rely heavily on SAEs to increase students' autonomous motivation through the built-in mechanisms of SBAE (Swenson et al., 2021). SBAE offers a unique educational context compared to other subject areas to provide effective autonomy-supportive teaching that supports the intended outcomes of the instructional strategies through various ways students engage in a three-circle model within a program. Further, SBAE teachers displayed autonomy-supportive behaviors through the ways they advise their local FFA programs (Bowling & Ball, 2020) and SAE activities of students (Bird et al., 2020). However, research lacks an exploration of how SBAE teachers implement student-directed opportunities within the classroom to support students' autonomy.

SBAE teachers identified the need to motivate students, however motivational strategies are inconsistent between their role as a SBAE teacher and FFA advisor. Curry (2017) recalls CDE coaches create a culture of success to intrinsically motivate students. Intrinsic motivational strategies were used among SAE and FFA experiences, yet extrinsic motivational strategies were utilized in a greater capacity in the classroom (Bowling & Ball, 2020; Bowling et al., 2022; Deci et al., 1991; Deci & Ryan, 1975). SBAE teachers seek out practical ways to implement motivational strategies to support students' autonomous motivation. Currently, there is no research on the theoretical and practical uses of ASIB in SBAE programs, which drives the direction of this research. Previous research encourages the exploration of teachers' formation and application of their motivational beliefs to further understand how ASIB can be integrated into strategies and approaches taken by teachers who seek to support students' autonomous motivation (Bowling et al., 2020; Bowling & Ball, 2020; Deci et al., 1991; Reeve, 2009; Reeve, 2018). Identifying ASIB mechanisms utilized by SBAE teachers could potentially support positive student outcomes such as increased intrinsic motivation, skill development, and prolonged engagement in SBAE programs and agricultural careers (Reeve & Cheon, 2021).

Theoretical Perspective

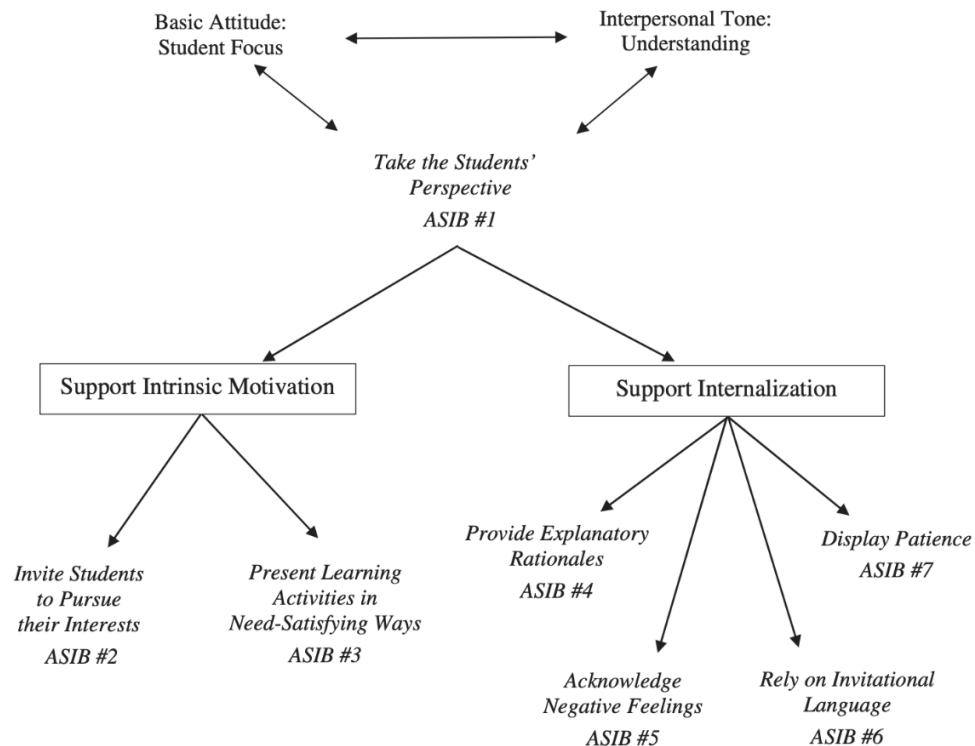
Self-Determination Theory (SDT) is the theoretical basis for the ASIB model presented by Reeve and Cheon (2021). Within the scope of this research, the investigators utilized the ASIB model to examine student-directed programs from the perspective of SDT. Ryan and Deci (1987) present three psychological needs of human motivation are autonomy, relatedness, and competence. The fulfillment of these three psychological needs is crucial for optimal functioning and well-being and is essential to support autonomous motivation (Ryan & Vansteenkiste, 2023). Further, autonomy is an important aspect of a classroom environment because it allows students the opportunity to achieve motivational satisfaction (Ryan & Deci, 2017). Autonomy is a central explanatory concept that describes an individual's power to use one's will, volition, and self-endorsement during their own behavior regulation and initiation (Ryan & Deci, 2017). SDT argues that humans strive to find competence, relatedness, and autonomy to fulfill basic psychological needs that lead to a fulfilled, satisfied life (Ryan & Deci, 2002). Autonomous individuals tend to

show less cognitive defensiveness, which leads to fewer self-serving behaviors and in-group bias (Hodgins & Knee, 2002). This is not only important for students to feel autonomous, but also to fulfill the need of autonomy to foster this environment within their classroom.

The ASIB model created by Reeve and Cheon (2021) was used to guide the researchers in exploring the phenomenon of autonomy-supportive instruction within the context of SBAE. The ASIB model (see Figure 1) guided methodological development throughout this study. The first point of data collection was driven by the top half of the model to address concepts surrounding a teacher’s basic attitude toward students, an interpersonal tone of understanding, and how teachers take students’ perspectives. Semi-structured interview questions were developed to capture participants’ experiences within the desired concept of the model. The second data collection point was to observe how teachers support intrinsic motivation and internalization. An observation guide was developed to record behaviors associated with the seven ASIB; (1) take the students’ perspective, (2) invite students to pursue their interests, (3) present learning activities in a need-satisfying way, (4) provide explanatory rationales, (5) acknowledge negative feelings, (6) rely on invitational language, and (7) display patience. The model guided coding analysis as a comparison to behaviors with observed behaviors of our participants. Up to this point, ASIB has been explored within other context areas of education (math, English, physical education) (Reeve & Cheon, 2021), however, SBAE offers a unique platform that may not express similar phenomenon as compared in previous research. Research indicates that when teachers engage in autonomy-supportive instruction, they produce increased benefits to classroom climate and student outcomes (Bowling & Ball, 2020; Bowling et al., 2022; Reeve & Cheon, 2021). ASIB offers a way for teachers to motivate beyond a checklist of motivational behaviors that are centric to supporting intrinsic motivation and internalization (Reeve & Cheon, 2021).

Figure 1

Seven autonomy instructional behaviors (Reeve & Cheon, 2021)



Purpose & Research Question

This study aimed to explore the ways Ohio SBAE teachers use autonomy-supportive instruction to support student autonomous motivation and internalization. The study was guided by the following central research question: How do Ohio SBAE teachers perceive how they are using and demonstrate the use of autonomy-supportive instructional behaviors within a total agriscience program?

Methods/Procedures

An instrumental case study design (Stake, 1995) was used to explore Ohio SBAE teachers who express ASIB. Autonomy-supportive instruction can be expressed differently between cases, thus instrumental case studies explore the commonalities of a specific phenomenon. For this research, the case was bound by a specific group of Ohio agriscience teachers who support and advise student-centered programs. This study was conducted in two phases: first, an interview of all participants followed by a program observation that included classroom instruction and an FFA activity. In addition to the classroom observation, participants were asked to share a document that is given to students to display SAE engagement expectations within a total program. The researchers identified and bracketed our biases (Creswell & Poth, 2018) as we are past SBAE teachers and currently serve as faculty in SBAE teacher preparation programs. Further, we positioned ourselves in a pragmatic interpretive framework that allowed participants' knowledge and values to explore the nuance of ASIB in agriscience education. The researchers focused on the real-world application of the ASIB framework and allowed participants to share their experiences and understanding of student-directed instruction to support student motivation.

Participants were identified by the Ohio Department of Education staff and The Ohio State University (OSU) agricultural teacher educators who were not researchers for this study. The Ohio Department of Education staff and OSU faculty identified individuals from each career stage (early, mid, and late), program type (rural or suburban), and who express student-directed programs. Student-directed programs showed high levels of student participation in FFA and SAE activities, as well as student-centered instruction. From these recommendations, we used purposive sampling to create a list of agriscience teachers representing early, mid, and late-career categories and program types to ensure a maximum variation of participants. Table 1 shows the demographic characteristics of participants with pseudonyms used for this research study. Email addresses were obtained from a public directory published by the Ohio FFA Association. A list of 22 SBAE teachers were recruited via email and five individuals agreed to participate. After an observation with Anne, who co-teaches all of her classes with the second agriscience teacher in the school, we obtained consent and included her teaching partner, Madison, in the observation data and conducted a post-interview that served as member checking. By the end of the study, we had six participants.

Table 1

Participant Demographics

Pseudonym	Program Type	Teaching Experience	Interview Type	Observation	SAE Document Type
Anne	Multiteacher, rural	Late	Pre-	Classroom, strategic planning meeting	Work-based learning expectations
Blake	Single, rural	Late	Pre-	No	No
Brooke	Multiteacher, rural	Early	Pre-	Classroom, daily officer meeting	SAE timeline and plan packet
Jordan	Multiteacher, suburban	Mid	Pre-	No	No
Madison	Multiteacher, rural	Early	Post-, member checking	Yes	No
Sam	Single, suburban	Mid	Pre-	Classroom, CDE practice	Business record book guide

Semi-structured interviews (Creswell & Poth, 2018) were conducted via Zoom, audio and video recorded, and transcribed verbatim. One researcher conducted all of the interviews and used an interview protocol to reflect ASIB concepts of a basic attitude focused on students, creating an interpersonal tone of understanding, and taking students' perspectives into consideration (Reeve & Cheon, 2021). Sample interview questions included: How do you recognize student needs within your program? How do you encourage student choice within your classroom, FFA, and SAE? During the interviews, field notes were conducted to document data not easily captured through video or audio such as body language or reactions to certain questions. To address trustworthiness of data, interview transcripts were triangulated with field notes and peer reviewed by researchers (Lincoln & Guba, 1985). Researchers sought to ensure each interview generated rich, thick descriptions to capture each participant's experience accurately. Once the interview was transcribed, transcripts were coded line by line and then codes emerged into categories. Similar categories were then combined into the emerging themes. Additionally, field notes were coded into categories and combined into emerging themes. Interview field note themes were then compared and the final themes emerged. Researchers reviewed data, transcripts, codes and emerged themes in a peer review process.

After participant interviews, program observations were conducted to observe the classroom environment and an FFA leadership activity or meeting. SAE document analysis was also conducted. For the observations and document analysis we purposively sampled three of the five participants to ensure maximum variation across career stages and program location. We developed and followed an observation guide to document involvement and structure behaviors and tallied behaviors during five-minute intervals (Creswell & Poth, 2018). Examples of involvement behavior include task support, individual conversation, and cooperation and teamwork (Reeve & Cheon, 2021). Examples of structure behaviors include role modeling, setting expectations, and feedback (Reeve & Cheon, 2021). In addition to the observation guide, field notes were taken and timestamped to capture and compare verbal and nonverbal behaviors of teachers

during classroom instruction and FFA activities. Program observations included a post observation interview with questions we created based on observational data to capture accurate reflection of participants. Observations and post interviews were voice recorded, transcribed line by line, coded, and categories were formed. We determined after the third observation saturation of data was met.

Observation participants shared SAE documents that guided student engagement of SAE's. SAE documents were analyzed using a modified observation guide that sought to record the frequency and type of involvement and structure of ASIB behaviors (Creswell & Poth, 2018). SAE documents were line-by-line coded, and similar codes were combined to form categories. SAE document analysis also allowed for additional categories to form and then categories were triangulated from the observation guide and field notes, to allow themes to emerge. Themes were member checked with a co-teacher of one of the multiteacher programs (Lincoln & Guba, 1985). Initial themes from the interviews and observations were triangulated to create the final themes and subthemes.

Findings

Theme 1: Talk the Talk and Walk the Walk: Modeling Program Culture of Autonomy

Theme 1 emerged from the participants' discussions and demonstrations of how to model program culture directed around student perspectives, which became overwhelmingly clear during interviews and observations. For participants, they emphasized the importance of modeling what autonomy looks like for individual students and what it looks like at the program level. Through this theme, participants discussed and modeled what a program culture of autonomy looks like in their experience. Participants discussed the importance of creating an autonomy-supportive culture by either modeling expected actions and behaviors or by encouraging certain students to demonstrate these actions and behaviors for others to follow. Program culture is not just about modeling behavior, but also about being guided by students' intrinsic motivation to contribute to creating the program culture.

To begin, we observed participants demonstrating the importance of having students pass down program traditions and expectations. However, these traditions and expectations evolved over time. Participants explained that the culture of their program is *not* the same as their first year of teaching. Culture takes time and patience to build. This became evident during observations between the early, mid, and late career categories. Brooke, who represents early career agriscience teachers, was pulled between student questions, teaching assistant needs, and the misbehavior of a particular student. Autonomy support for students was diluted as Brooke was pulled in multiple directions during the classroom period, leading to less frequent supportive behaviors as the hour progressed. Anne, who has the most years of experience, stated “establishing the culture [of student autonomy] did not happen overnight...it was trial and error, it was not giving up, and it was getting outside of the “norm” [of teacher-directed programs] to put students at the center of everything I do.”

Anne showed caring, supportive behaviors during her program observation. Anne expected students to provide feedback to peer presentations. However, Anne modeled what she expected from the students during the first student presentation. We observed Anne facilitating conversations rather than starting conversations through an inviting tone and viewpoint of understanding student perspectives. Additionally, participants noted that students enroll in their programs because of the culture that is built year after year. Brooke stated, “my students take charge in creating culture...at one point I had to coach them along, but now I watch my students coach other students about the traditions we have in the program.” Brooke explained how in her early years of teaching, she would take a more controlling role of setting expectations because her students needed guidance. As the

years progressed, students began to take ownership of the expectations and pass them to incoming students into the program. This was supported through Brooke's SAE documents that align expectations for student's SAEs over a student's high school career involvement rather than year-by-year expectations. Students have the choice to follow certain tracks that allow individual students the autonomy to build their own path through career exploration and work-based learning experiences.

Sam pointed out his program culture is an important aspect of passing down traditions to the next class of students. Sam pointed out that keeping those traditions and expectations is not always the easiest task when faced with challenges. Brooke also commented on students' moods within her program, "...after a few weeks of getting to know the students, I can figure out which ones will be the energy setters...I will put a bug in their ear about being excited about a topic or ask them to help me." A culture of autonomy begins with the teacher but continues to develop with the individuals in each program. In contrast to positive program culture, Sam noted that not all students take his sequence of classes each year. This makes it difficult to pass down traditions to a large group of students. However, Sam noted that he focuses on the students that do come back year after year, "all of my students are worth my time, but I make sure to focus on the returning students and make sure they have every opportunity to be successful in my program."

During interviews, teachers explained how student leaders drive engagement of FFA related activities. FFA was referenced as the context with the highest student choice within the total program model. Participants noted student leaders take charge of FFA chapter activities and drive what opportunities are available to members. Goal setting was important when participants talked about traditions related to cultural expectations. Participants advised goal setting but allowed students to create their own goals for ownership of various projects, such as a community fundraiser or planning the year-long program of activities. Participants identified FFA as the context area they perceived student had the most autonomy. However, participants were quick to list structured expectations provided by the teacher. Jordan stated during her interview, "it seems my students have the most choice in FFA," but quickly listed required events for active FFA members. Sam also had a similar response as Jordan. For example, Sam described a culture of successful CDE teams and FFA involvement year after year. While discussing FFA expectations, Sam noted, "the officers have freedom to plan anything throughout the year [within reason], but there are certain events that I will step in and make sure they happen." Sam explained his students know the expectations, but a gentle reminder was necessary, especially when building a community and culture. Blake added "sometimes I let my students fail," as she discussed the struggles of giving students autonomy as an officer on the leadership team, "it is good for them to learn how to decide if we have the capacity to do an idea or not." Participants explained their rationale of stepping in and setting those expectations to ensure program culture continues. Jordan added, "some years I have to assist more than other, I just have to find the weaknesses of [students] and support them."

Classroom management has the potential to cross the line into thwarting motivation of students, the exact opposite of the phenomenon we sought out to explore. We observed Sam during a short school week because of a national holiday. During the last period of the day, Sam continued to address a group of students who were not on task. Sam addressed classroom expectations multiple times within the first ten minutes of independent work time. After several reminders, Sam asked one student to leave the room and talked to that student outside of the class. After the class period, Sam discussed with me his frustrations in his student's behavior. "I know that I should be stricter when it comes to the side conversations and being off task, but I've noticed [in prior experiences] that it brings the mood of the classroom down and students don't respond to negative reactions from me," Sam stated as he pondered about classroom management and how it can thwart student motivation. Sam referenced his mood and personality can have a direct relation to how

students react in his classroom, “when I am having a bad day and my mood is “blah” my student's mood is “blah” but when I am overenthusiastic my students mimic my energy, and it makes the classroom environment better.” For Sam and the other participants, students were drawn to follow in the direction of the teachers’ energy. This theme emphasizes the importance of expressing and acting in ways that foster a supportive environment for students’ autonomy.

Theme 2: I Believe I’m Encouraging Student Autonomy, But How Can I Be Sure?

Within Theme 2, participants expressed uncertainty about whether they were truly supporting students' autonomy because they were unsure how to operationalize the definition. This uncertainty clarified the theme's emergence: Participants believed they were encouraging student autonomy but were unsure how to effectively communicate their experiences. Two sub-themes emerged within this theme. The first sub-theme, Constrained Choice, investigates how participants perceive choice in terms of motivation, highlighting that true choice in an educational setting often involves offering students the opportunity to explore options. The second sub-theme, Perceptions versus Reality, examines the discrepancies between participants' perceptions of ASIB (Autonomy-Supportive Instructional Behavior) within their program and the actual implementation of ASIB. Both sub-themes contribute to the understanding of Theme 2 as participants grapple with defining and implementing ASIB in their own experiences.

Subtheme 1: Constrained Choice

The subtheme of Constrained Choice emerged as participants shared how they allow students to have choice that supports students' motivation and how they are perceived to foster student autonomy. During the interviews, participants provided examples of providing choices within their program. Every participant interviewed noted the importance of providing students with choice in summative project topics or format within a classroom context. Further, participants described that students are in the habit of checking a box rather than taking ownership of their educational experience. When asked about how they allow students to have autonomy, more often than not, their response was through choice. To combat the monotony of checking a box, Jordan explained, “I know we have to learn about the digestive system, but students can pick which animal they want to study.” Semi-structured projects where the context is chosen by the students were common in all participants who talked about student choice in the classroom setting. Further, choice was presented in several formats. First, like Jordan’s example, it was free choice for their students to pick a species to study the digestive system. Other forms of choice emerged as options. For example, Anne described choice boards where students could choose from several different options for students to show how they met the learning outcome.

For the most part, classroom autonomy was identified through projects to demonstrate how they learned. Projects allowed participants to motivate students while encouraging individual autonomy. Students were able to follow guidelines set by the participant, but choose how it was presented, in what context, etc. However, participants added that some students struggled with choice, especially when given free choice. Other students simply do not choose to avoid completing work. The intrinsic motivator to choose a topic overwhelmed some students where others were seeking to just check a box to meet expectations. Participants identified students who were struggling with choice and then set additional guidelines, often offering fewer options for students to choose from. Removing the infinite number of options that was creating the avoidance still allowed for choice but was controlled by the teacher.

In addition to narrowing choices, Sam noted that guiding students to choosing a specific topic was also needed. “If we are studying diseases, I usually guide students to picking topics that we *must* cover, like avian influenza or rabies.” However, while observing Sam, choice was provided by the teacher and students had to randomly select a predetermined topic. The freedom

of choice Sam perceived to give during his interview was not observed. Sam allowed students to choose between five food science safety practices that disagreed with his perceived ASIB behaviors.

Subtheme 2: Perceptions vs. Reality

Discrepancies were observed between participants' perceived choice allowance and the reality of constrained choice within their program, particularly regarding SAE involvement. However, participants reported that FFA and SAE engagement were high aspects of autonomy within a program. Participants described perceptions of autonomy support, but these actions were not necessarily observed. Further, participants described the struggle to offer autonomy all the time. Several participants expressed the view that giving students autonomy was crucial for fostering independent thinking and allowing them to discover their own interests. However, they also noted that effectively planning and supporting each student within the limited time of an eight-hour school day posed a significant challenge. Preceding supporting student autonomy was first motivating students. The subtheme "Perceptions versus Reality" represents the participants' efforts to support student motivation, but they fall short in allowing all students the opportunity to experience autonomy.

SAE opportunities were noted as high student choice within the interviews, yet we observed restrictions placed on expectations. Blake noted, "my students are not traditional...I meet them where they are with their SAE project...if they only have access to their apartment balcony then we will work with that." Resources were a barrier to providing true student choice for several participants. This was supported through document analysis as well. Blake and Anne expected students to reflect on what resources they had access to at home and school to complete their SAE project successfully. Students may have grand ideas but the reality of obtaining resources for SAE projects may be limited by physical space, high financial cost, or lack of prior knowledge. It was necessary for participants to take on a more controlling role in breaking down a potential SAE project to make it attainable for student success in the SAE context. Breaking down expectations was observed in SAE document analysis through deadlines or checkpoints, reflective journaling, goal setting, and a parental agreement contract.

During the interview, Brooke described her officer team as "self-starters" and but typically has one or two students who take a "back seat" during meetings. Brooke describes her ideal officer meeting as initiated by the officers, and her role is to guide and offer input when asked. Brooke and the officer team were planning a community event that raised money for someone in the local community. Brooke described the event as a tradition and something the community expects to happen each year. As we observed Brooke coaching her students during the community event planning meeting, students were engaged and ran the meeting on their own. Brooke explained that the agenda and to-do list were created by herself and the president of the FFA chapter. The team was tasked with finding donations for an upcoming benefit silent auction. Brooke set expectations and sent students to complete the work. We observed Brooke having to sit next to one student who needed step-by-step instructions to complete their assigned tasks. During this observation, Brooke asked the student what the next steps were after each task was complete. After the observation, Brooke reflected on supporting that individual student with "some students I have to keep a close eye on because they will quickly get off task and its more work to let them work on their own than guide them along." For Brooke, she expects meetings to run in a certain way but knows the reality that some students need more support than others.

While others' perceptions differed from what was observed, both Anne and Sam demonstrated autonomy-supportive where their perceived expectations aligned with their lived reality. Anne supported this observation during the post-interview by stating, "I've noticed that I

have high student engagement when all my students are part of the [event] planning process...they actually come to the events their peers plan rather than when I plan them.” During the observation, Anne allowed students to take ownership of the meeting agenda and conversation. Anne offered guidance and support for ideas but never controlled the narrative of the conversation. Anne noted in her interview that students took ownership of FFA leadership activities, this mimicked the FFA observation of Anne. To add to this concept, Sam was realistic when describing expectations during CDE practices during his interview. Sam addressed that while students have the autonomy to choose to participate in a CDE, he does need to offer structured guidance and expectations. Sam demonstrated actions that mimicked the perceived autonomy support he described in the interview.

Theme 3: Highlight Individual Growth Over Award Recognition

Autonomous success described by participants during the interviews was often described at an individual level rather than at a program level. However, not all participants had winning CDE teams, American Degree recipients, or proficiency award winners. In fact, every participant noted that “winning” was not an expectation of their students. Opportunities presented to students such as CDEs and SAE projects allowed students to choose how they wanted to participate in the local FFA program. “Once [students] have success, it’s a strong motivator for future engagement” stated by Anne when reflecting on why students continue to enroll in her SBAE program.

Winning was not an expectation set by participants and they even expressed that high stake award recognition thwarts autonomy within their programs. This theme emerged during participant interviews but was further supported in observations and SAE document analysis. While the actions of each participant would lead to successful competitors at a state and national level, the expectation for students to apply for a state degree, complete a proficiency award, or submit a national chapter application were never observed or documented as expectations tied to a grade or definition of success. Blake commented that over the years of teaching she has changed her view on the award system. Blake described how discouraging her students would become when they did not meet the minimum requirements to apply for a state degree, “I saw a kids get so discouraged because they couldn’t afford to invest \$500 on their project...I stopped requiring students to apply for degrees and awards...participation in [SAE projects] increased.”

To define success of students, Anne commented, “not every student is going to earn their state degree, but they can still have success in my program through other avenues that are not traditional, they have to find what they are passionate about.” Students who were identified as successful by participants addressed student involvement reciprocating through all contexts of a SBAE total program; classroom instruction, SAE, and FFA. Integrating the three-circle model has allowed Jordan to connect CDEs to classroom content clearly, “I might teach soils, but I teach it from the concept of ‘you’re building a house, how do we integrate urban soils and consult correctly?’” Further, building relationships early with students, especially outside of the classroom, allowed participants to connect what students were interested into classroom content. Jordan stated, “what keeps kids in my program is the opportunity to do anything—mechanics, greenhouse management, propagating plants, dissecting a stomach, etc... students have the opportunity to choose what they are interested in and learn about it beyond my classroom.”

Anne, Brooke, and Sam mentioned, in some capacity, that the success of the total program can be contributed by individualized opportunities for students. Anne focuses on meeting students where they are and finding challenges for each individual student. For Anne, she saw the importance of integrating the three parts, classroom instruction, FFA, and SAE, into daily instruction plans. The strategic planning process allows students to plan a program of activities for FFA membership. Anne incorporated the process of planning the program of activities within all of her classes through a project-based teaching method. Each student takes ownership of one aspect

of the program of activities. This could be chairing a committee or being a member on a committee, creating goals and an action plan, or reporting the outcomes of the event or activity. The program of activities is one aspect of a strategic plan that is associated with the National FFA National Chapter Award Application. Further, Anne stated that the end goal has never been to win at a national level with their application but rather to expose students to a strategic plan and motivate students to participate in FFA. “Strategic planning is a skill students need beyond the National [FFA] Chapter Application...” explained Anne as we discussed award recognition within the National FFA Organization. Anne continues to say, “...I believe our award system contributes to the silo of context areas [FFA, SAE, and classroom] ...What am I trying to accomplish with these kids? Is it the skill set or is it just a box I am trying to check to get an award?”

Anne, Brooke, and Sam have experienced “recognition success” of their programs; State and American Degree recipients, State and American Proficiency finalist, National Chapter recognition, and State and National Career Development winners. However, they emphasized that winning and recognition have never been an expectation of students from the teacher. Anne repeatedly emphasized that developing better humans was a key goal for her students:

If a kid is like, ‘I just need to grow and learn and be a better human,’ we allow a lot more flexibility for that [within the classroom, leadership activities, and work-based learning] ...What is the benefit of comparing students who have the requirements of a state degree and those who don’t.

Anne recognized that some students will not meet the requirements to earn a state degree or apply for a proficiency award. However, Anne focuses on identifying specific goals for each student to achieve success in their own way.

Sam commented and displayed the importance of individualized attention to student goals when working with groups and teams of students. Document analysis supported goal setting as an autonomy-supportive behavior of participants. Goal creations allowed participants to discuss individual outcomes of students. Jordan supported this observation by mentioning, “based [student] goal, I can figure out what the best fit and offer guidance depending on the ability level of the student.” Goals were noted as ways for participants to take in student perspectives while also supporting them based on what the student wants the outcome to be. Jordan followed up by commenting, “most of my students don’t have an end goal of a state degree, and I am okay with that.”

Sam has found that students who focus on achieving a process rather than aiming for an end goal show an increase in the longevity of participating in a certain activity as compared to those who want to win or be first. Sam does not have expectations to win awards, “I encourage my students to make goals that contribute to the process rather winning.” Sam talks about the team environment that has been established among his students as positive and encouraging, “...my students never compare themselves against each other...they are working as a team.” I questioned Sam as to how students buy into the team culture, and he responded with:

Every person knows their job; they know what they have to do when they walk into [CDE] practice...their contribution as an individual is just as important as how the team does as a whole.

Brooke had a similar experience with allowing students to create their own path. “My students come to me with the craziest ideas, and I never turn them down,” stated Brooke, “I may offer guidance and set boundaries, but it’s not my job to deny them an opportunity.” Brooke recognizes that the experiences her students can partake in must be sought out and directed by students—teacher-directed experiences do not lead to individualized development needed to support autonomy and increase motivation.

Discussion & Recommendations

To begin, it is essential to mention the limitations of this study. Experiences captured reflect a pragmatic interpretive worldview where each participant's experience as an agriscience teacher is valuable. The researchers recognize that participants represent a defined case study where autonomy-supportive behaviors were determined a priori, contributing to the transferability of findings. Following the interviews, observations, and document analysis, it was found that teachers must model expectations to support a program culture of autonomy. However, teachers need to recognize a program's capacity to support autonomy. Each program is situated in a unique community with different needs and structures. Teachers who understand the individual needs of their program and students can build a foundation that supports students' intrinsic motivation and internalization. We found that mid or late-career teachers were more aware of their capacity to support autonomy as compared to teachers in the early years of their careers.

As SBAE offers a unique lens to explore autonomy, it is important to note that planning and structure are necessary for successful ASIB integration. In some cases, the foundation can only support constrained choice with clear set boundaries. To be clear, expectations, support, and boundaries are necessary when implementing ASIB behaviors, and this is not to be confused with controlling behaviors (Reeve & Cheon, 2021). It can be difficult to integrate ASIB because teachers may be afraid of losing control over student behavior and learning outcomes. However, successful integration of ASIB often requires teachers to intentionally plan to provide guidance, patience, and structure, allowing student autonomy to develop (Reeve & Cheon, 2021).

Supporting an integrated total program that promotes choice reflects the evolution of SBAE through the years (Smith & Rayfield, 2016; Bowling & Ball, 2020). As noted in other studies on autonomy (Reeve, 2009; Lee & Reeve, 2017; Deci et al., 1991), SBAE teachers identify opportunities for student choice under specific guidelines presented to students. In some cases, structure could be confused for controlling instructional behavior. However, within the bounds of ASIB, structure that is supported by student interest, inviting language, and clearly communicated expectations can support internalization (Reeve & Cheon, 2021; Bowling & Ball, 2020). This is important to note, because controlling behaviors would lead to students disinterest and decrease motivational outcomes (Reeve & Cheon, 2021). Additionally, supporting autonomy goes beyond providing student choice (Reeve & Cheon, 2022). Teachers with fewer years of experience were limited in their variety of examples of how they support student autonomy as compared to teachers who had more years of experience. Veteran teachers were more confident in talking through autonomy-supportive behaviors and provided examples beyond student choice and interests within their examples. Teachers who were able to approach students with compassion and understand often shared examples that allowed a conversation to direct and influence instruction for the student or class. Additionally, teachers who fell into the mid and late career categories aligned behaviors with their perception of their behaviors. We attributed this to the experience that comes from numerous years of teaching associated with teachers' motivation beliefs (Bowling et al., 2022).

Understanding student interests guides instruction and offers greater opportunities for students to experience true autonomy. Autonomy does not stop at one's own volition but works hand-in-hand with self-regulation to promote internalization (Reeve & Cheon, 2021). As we found in this study, teachers focused on student interests, whether that was student driven (SAEs, FFA, and CDE participation) or constrained choice (summative projects) to support intrinsic motivation. Individualized attention to student's needs and interests is at the core of ASIB. Centering interests of students aligns with Reeve and Cheon's (2021) model of ASIB and offers SBAE teachers the opportunity to tailor instruction for students to align learning outcomes with their autonomous

motivation. Further, building relationships at the beginning of the school year is vital to establish an autonomous culture. We found that modeling a program culture of autonomy that is centered around taking student perspectives, communicating clear boundaries, and providing students an opportunity to take ownership of classroom engagement and FFA leadership experiences. On the opposing end of autonomy, structure and support are needed when providing expectations for SAE experiences. While students have the autonomy to choose any project, teachers set limits and boundaries that guide students to successful SAE learning outcomes.

Teachers strived to coach their students to take ownership in FFA expectations. Coaching lends to teacher behaviors that approach students with patience and acknowledge frustrated feelings of students (Bowling et al., 2016; Curry, 2017). This was an important aspect of establishing an autonomous culture. However, teachers had restrictions around FFA events (feasibility), classroom choice, and SAE experience related to addressing resources and accessibility of students to be successful in each of these areas. Defining student success needs to be done on an individual basis. Students need first to be met as a person and celebrate accomplishing goals developed by the individual. An overwhelming voice echoed through participants surrounding the National FFA award recognition. The awards process thwarts positive motivational outcomes of students who tend to compare themselves. Students seek to check boxes focusing on an end goal of a proficiency award, degree application, national chapter recognition, and winning CDE contest. Further, student recognition is and will continue to be necessary within agriscience total programs, but defining student success by award applications creates frustration, controlling behaviors, and frankly, demotivated students. The findings of this study are only the beginning of understanding how ASIB can positively support students' autonomous motivation, fulfillment, and learning outcomes.

Recommendation for Practice

SBAE teachers who want to incorporate ASIB need to purposefully plan how autonomy is built into a program through student choice, ownership of expectations, and integrating classroom experiences, SAE individual projects, and FFA leadership opportunities. To establish a program culture of autonomy, purposefully planning and scaffolding what autonomy students have access to is necessary. Creating a routine and expectations with and not for students is an example of ASIB and attainable for teachers to model within their program. Additionally, building relationships with students provides an understanding of individual students' interests, therefore purposefully planning time to build rapport with students must be a priority. Further, teachers who encourage goal setting need to focus on the process of guiding setting expectations alongside students rather than expressing controlling behaviors which can dictate the direction of the goals. In several instances, teachers had to intervene when students were not meeting goals or expectations because choice was overwhelming. Thus, if students are overwhelmed with the unlimited amount of choice through unstructured autonomy, teachers should offer options to guide students with constrained but not controlled choice and clear directions. Constrained choice could appear as the teacher provides a clear rubric of expectations but allows each student to choose the mode of submission. SBAE teachers should consider revisiting SAE and FFA expectations, keeping in mind that extrinsic motivators can deter motivation in these settings. To revisit expectations, teachers should review how they are taking in student perspectives into programmatic decisions, include written expectations that are clearly communicated to students, and provide structure for students to follow for consistency.

Teacher educators can also adopt and model ASIB within a college context when teaching preservice teachers. Teacher educators are encouraged to develop lessons which focus on ASIB and guide reflections after microteachings and lesson plan evaluations that include strategies to support student autonomy. Additionally, when teacher educators are discussing expectations of SBAE teachers related to national award recognition, the focus should be on the individual goals

of students and not the award application. Emphasis should be placed on the growth and learning process of the student and not the end goal of award recognition.

Recommendations for Research

To begin, this study should be replicated using a longitudinal design to provide findings that see the evolution of ASIB use through the school year and beyond. Additionally, qualitative research should be conducted to gain student perspectives on autonomy within a SBAE classroom. Further, exploring motivational outcomes between rural, suburban, and urban programs has yet to be explored. Findings of this study did not explore the variation of ASIB between community types and it should be explored to understand autonomy support between community types. Lastly, teachers' perceptions of their autonomous capacity compared to the reality observed in the classroom did not align. Further, exploration should involve qualitative research to examine SBAE teachers' perceived capacity to support student autonomy. It is recommended to study how teachers engage in metacognitive processes and consider their approach to providing autonomy support within their program. As autonomous motivation leads to students' capacity to internalize learning outcomes, further exploration is crucial in understanding how students recognize when they are exercising their autonomous motivation and when they are not. This is essential for understanding how ASIB can benefit SBAE.

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