

Exploring the Self-Perceived Needs of School-Based Agricultural Education Teachers

Kayla N. Marsh¹
Christopher J. Eck²
K. Dale Layfield³
Joseph L. Donaldson⁴

Abstract

Teacher attrition is a historic problem that is now an educational crisis. School-based agricultural education (SBAE) is not exempt from this crisis, with teacher shortages dating back to the passing of the Smith-Hughes Act. For the past three decades, researchers have studied this phenomenon to better understand the needs of SBAE teachers to increase recruitment and retention. While several needs are recurring, current efforts are not resulting in actionable change for SBAE teachers. To gain new perspectives, qualitative interviews were conducted with SBAE teachers in three states, focused on their perceived needs. The Conceptual Model of Support for SBAE Teachers was introduced as a potential lens to meet the human needs of SBAE teachers and depth to direct actionable change for in-service SBAE teachers. Four overarching themes were found through qualitative interviews, including health and wellness of SBAE teachers, students, and communities; supports structures for SBAE teachers; student human capital development; and resources for SBAE teacher success, confirming that teachers' basic human needs for security and subsistence are prevalent within the profession. Resulting in recommendations to change the perspective for addressing SBAE teachers' needs.

Introduction

Teacher attrition has been a significant and documented issue facing education on a national scale since the 1970s, with 25% of individuals certified to teach never entering the classroom, and 33% of new teachers not remaining in the profession past year three (Cowan et al., 2016; Ingersoll, 2001; Sutchter et al., 2016). This phenomenon, while well documented with over 25,000 scholarly investigations, is still a significant problem within education today, impacting the number of individuals who are willing to join the career field (Adnot et al., 2017; Carver-Thomas & Darling-Hammond, 2019; Ingersoll, 2001).

This phenomenon is consistent, complex, and tragically impacts the future of education in the United States (Adnot et al., 2017; Carver-Thomas & Darling-Hammond., 2019; Cowan et al., 2016; Hasselquist & Graves, 2020; Ingersoll, 2001; Sutchter et al., 2016). Perhaps by addressing teachers' attitudes, beliefs, and perspectives, we can gain a different lens to view this phenomenon to create change within the profession.

¹ Kayla N. Marsh is a Graduate Teaching and Research Assistant in the Department of Agricultural Education, Communications and Leadership at Oklahoma State University, 318 Agricultural Hall, Stillwater, OK 74078. Kayla.marsh@okstate.edu. ORCID#0000-0003-3574-1936

² Christopher J. Eck is an Assistant Professor of Agricultural Education in the Department of Agricultural Education, Communications and Leadership at Oklahoma State University, 234 Agricultural Hall, Stillwater, OK 74078. Chris.eck@okstate.edu. ORCID#0000-0002-1645-3632

³ K. Dale Layfield is an Associate Professor of Agricultural Education in the Department of Agricultural Sciences at Clemson University, 246 McAdams Hall, Clemson, SC, 29634, dlayfie@clemson.edu.

⁴ Joseph L. Donaldson is an Associate Professor and Extension Specialist in the Department of Agricultural and Human Sciences at North Carolina State University, 248 Ricks Hall, Raleigh, NC, 27695, joseph_donaldson@ncsu.edu.

The teacher attrition phenomenon is not limited to traditional content areas but has an increased rate of attrition in specialized content areas like special education, science, technology, engineering, and math (STEM), career and technical education (CTE), and agricultural education due to the increase in job responsibilities (Hasselquist & Graves, 2020; Hutchison, 2012; Ingersoll, 2001; Ingersoll & Tran, 2023; Phipps et al., 2008). Within school-based agricultural education (SBAE), teacher shortages have been documented since 1917 with the passing of the Smith-Hughes Act (Eck & Edwards, 2019). With new SBAE teachers being more likely to leave the classroom in the first three years, women more likely to leave the SBAE classroom in the first five years, alternatively certified teachers struggling to develop relationships, and SBAE teacher's work-life balance priorities creating the demand for differentiation to meet their individual needs (King et al., 2013; Sorensen et al., 2016; Thornton et al., 2020; Traini et al., 2021). For more than 30 years, research has demonstrated that SBAE teachers' professional development needs include FFA program management, developing public relations, supervised agricultural experience (SAE) development/supervision, computer technology, and managing student behavior (DiBenedetto et al., 2018). While these are specific reoccurring needs, why are they persistent and how do they impact current SBAE teachers' job satisfaction?

Effective professional development builds teacher human capital skills, increases career tenure, and positively affects student outcomes (Coldwell, 2017; Moser & Mckim, 2020; Sancar et al., 2021). Although not all professional development is effective, the most significant challenge with teacher professional development isn't a lack of content or program offerings but rather the absence of a holistic view of the program's components (King et al., 2013; Sancar et al., 2021). King et al. (2013) recommend that the continuation of teacher need research should be utilized to guide the skill development and individual needs of SBAE teachers through training, resources, and professional development and should be informed by the current needs of in-service teachers (Coldwell, 2017; Klassen & Chiu, 2010; Sancar et al., 2021).

More recent research within the agricultural education profession has broadened the focus on professional development to include work-life balance, job satisfaction, and program needs – in response to the teachers' effort as well as mental, physical, and emotional stress that comes from managing a successful program (Doss et al., 2023; Phipps et al., 2008; Pressley et al., 2021; Shoulders et al., 2021). Doss et al. (2023) found that SBAE teacher burnout significantly influences job satisfaction. Comparatively, SBAE teachers shared that relationships had the most significant positive impact on job satisfaction (Doss et al., 2023). Establishing the concept that relationships and balanced life (i.e., work-life balance) are an integral component of being an effective SBAE teacher, along with the development of career-specific human capital (Doss et al., 2023; Eck et al., 2020).

Both historical and current research efforts have an overlap of themes between SBAE teachers' needs and job satisfaction factors. Unfortunately, addressing needs and improving job satisfaction are elusive tasks because a "one size fits all" approach to career-specific human capital development is ineffective to meet the needs of all SBAE teachers (Klassen & Chiu, 2010). The discernment of current SBAE teachers' needs is paramount due to their exacerbated workload and added stress caused by the Covid-19 pandemics' convoluted and constantly changing policies (Gillani et al., 2022; Phipps et al., 2008; Pressley et al., 2021; Shoulders et al., 2021). The lack of educational support and the implementation of school policies impacted teachers' mental health, leading to burnout and an increase in teacher attrition (Gillani et al., 2022). This amplified social, emotional, and mental stress and anxiety has led to the overburdening of SBAE teachers' abilities to cope with stressors, indicating the need for research to understand SBAE teachers' current needs (Gillani et al., 2022; Pressley et al., 2021; Shoulders et al., 2021). Therefore, identifying SBAE teachers' needs is essential to provide support and resources for mitigating stress and offset teacher attrition.

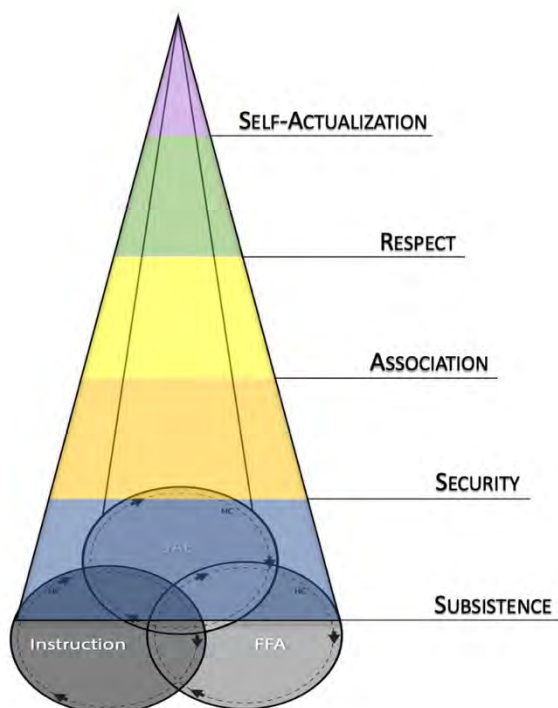
Theoretical/Conceptual Framework

To better understand the essence of current SBAE teachers' lived experiences, an adaptation of *Maslow's Hierarchy of Needs* from the Theory of Human Motivation (1943) operationalized the evaluation of SBAE teacher needs for this study. Maslow (1943) developed a hierarchy of needs, which demonstrates the relationship between the roles, responsibilities, and human needs arranged by prepotency, which are defined as basic human needs, including physiological, safety, love, esteem, and self-actualization. Individuals are driven to achieve *self-actualization* but must first meet sequential needs (Maslow, 1943).

Maslow's hierarchy has been applied to a multitude of different disciplines since its introduction (Maslow, 1943), including farming, financial planning and religion, student retention, and teachers' needs (Anburaj Balraj, 2017; Cheng & Qi, 2015; Fisher & Crawford, 2020; Fisher & Royster, 2016; Lee & Hanna, 2015; Weller, 1982). "*Maslow's hierarchy to support the needs of teachers*," by Fisher and Royster (2016), maintained the categories of the original hierarchy but aligned the titles of each category to better represent the needs of K-12 education. Fisher and Royster's (2016) model renamed *physiological* to *subsistence* to specify the individual physical survival needs within the education discipline and align it with the need for rest, pedagogy, and professional development. Similarly, *safety* was renamed *security* and aligned with SBAE teachers by combining the *Three-Component Model for Agricultural Education* (FFA, n.d.). To better demonstrate the relationship between the *Three-Component Model for Agricultural Education* (FFA, 2022), *Maslow's Hierarchy for Teachers* (Fisher & Royster, 2016), and *The Effective Teaching Model for SBAE Teachers* (Eck et al., 2019), a conceptual model was developed as a lens to better assess the needs of SBAE teachers (see Figure 1).

Figure 1

Conceptual Model of Support for School-Based Agricultural Education Teachers



Purpose of the Study

The purpose of this study was to identify the current needs of SBAE teachers in Florida, Georgia, and South Carolina, and the overarching research objective was to explore the self-perceived needs of in-service SBAE teachers in three southeastern states (i.e., Florida, Georgia, and South Carolina).

Methods

To address the overarching research question, a qualitative hermeneutic phenomenological approach was developed to gain the essence of the lived experiences of SBAE teachers. For the purpose of this study, a census population of in-service SBAE teachers ($N = 1,205$) in three southeastern states (i.e., Florida, Georgia, and South Carolina) were invited to participate (Creswell & Poth, 2018; Privitera, 2020). A complete email frame was developed for the study population, utilizing existing frames and state listservs. An initial personalized email and three contact points were used to invite SBAE teachers ($N = 1205$) to participate in the interview process (Dillman et al., 2014). All SBAE teachers in Florida, Georgia, and South Carolina ($N = 1205$) had an equal opportunity to participate (van Manen, 2014). Interviews were scheduled until saturation of themes were reached, which was achieved in 15 interviews (Creswell & Poth, 2018; Saldana, 2021). Zoom was utilized to facilitate interviews with participants.

Participants represented a range of personal and professional characteristics, including gender, years of teaching experience, and teaching site situations (i.e., middle school, high school, career center, or exceptional center locations). All participants were involved in the phenomena of teaching SBAE (van Manen, 2014). Of the 15 participants, four were male and nine taught middle school. Table 1 outlines the personal and professional characteristics of participants, which is representative of Florida, Georgia, and South Carolina SBAE teacher demographics.

Table 1

Personal and Professional Characteristics of Participants (n = 15)

Participant Pseudonyms	Gender	Career Tenure	School Site	State
Anna	Female	Mid-Career	Middle School	Georgia
Beth	Female	Early Career	Middle School	South Carolina
Chloe	Female	Early Career	Middle School	Georgia
David	Male	Late Career	High School – Career Center	South Carolina
Emily	Female	Early Career	High School – Traditional	Florida
Fern	Female	Late Career	High School – Traditional	Florida
Garret	Male	Mid-Career	Middle School	Florida
Heather	Female	Late Career	Middle School	Florida
Iris	Female	Late Career	High School – Exceptional Center	Florida
Jackie	Female	Mid-Career	High School – Traditional	Georgia
Ken	Male	Late Career	High School – Traditional	Georgia
Laura	Female	Mid-Career	High School – Career Center	South Carolina
Martha	Female	Mid-Career	Middle School	Florida
Nina	Female	Early-Career	Middle School	Georgia
Oliver	Male	Early Career	Middle School	Florida

To understand the phenomenon of teaching SBAE in the twenty-first century and the depth of program needs as we move to a post-pandemic educational frame, an interview protocol was intentionally designed to understand the struggles, successes, modifications, and motivations of SBAE teachers in

relation to their needs and how they balance their SBAE program. While the interview protocol was limited to nine questions, interview length ranged from 38 minutes to three hours, with an average length of one hour and thirty minutes. Interview length is attributed to the interviewer's ability to build rapport through the interview process because of their SBAE teaching experiences, which allowed participants to feel safe and acknowledged as they shared their experiences and the essence of the phenomenon (van Manen, 2014).

Reflexivity Statement

The primary interviewer served as an SBAE teacher in Florida for nine years and experienced teaching during the Covid-19 Pandemic. These nine years provided first-hand experiences of the stress, workload, and dedication needed to manage a complete SBAE program. Response bias may be found in Florida SBAE teachers' participation in the interviews due to the researchers' history of teaching agriculture in the state.

Qualitative Data Analysis

A single interviewer conducted all interviews to maintain the consistency of the interview protocol. Open coding was utilized in Round One to allow the emergence of codes from lived experiences to develop the essence or meaning of the phenomenon from the qualitative interview transcripts, Zoom audio recordings, and interviewer notes (Creswell & Poth, 2018). To ensure creditability, research team member checks were conducted to reduce interviewer bias during the coding process (Creswell & Poth, 2018). To ensure the trustworthiness and consistency of the study, rigorous procedures were upheld to maintain credibility, transferability, dependability, and confirmability (Privitera, 2020; Saldana, 2021). Credibility refers to the internal validity of the data collected, and conclusions drawn from the study (Privitera, 2020). Procedures followed to defend the credibility of the study included data triangulation utilizing Zoom interview recordings, interview transcripts, and interview notes; research member checks to compare conclusions; and data saturation of emerging codes (Archibald et al., 2019; Creswell & Poth, 2018; Privitera, 2020; van Manen, 2014). Transferability refers to the external validity of the data collected and the extent to which it can be generalized outside of the qualitative interview participants. To ensure the potential for the data collected to remain transferable, the research team: a) described participants and the setting in which interviews were conducted, b) explained the process for contacting and interacting with participants, and c) represented a diverse population of perspectives related to the phenomenon being studied. Dependability refers to the consistency in which the study was conducted, being held to rigorous standards throughout (Archibald et al., 2019; Creswell & Poth, 2018; Privitera, 2020; van Manen, 2014). Dependability was maintained through the data triangulation process (Archibald et al., 2019; Creswell & Poth, 2018; Privitera, 2020; van Manen, 2014). Confirmability refers to the objectivity of the findings and the ability to interpret the narrative of the experience of participants to determine the essence of the phenomena instead of the researcher's bias (Creswell & Poth, 2018; Privitera, 2020; van Manen, 2014). A reflexivity statement describes the researchers previous understanding of the phenomenon being studied and the relationship held with current SBAE teachers (Creswell & Poth, 2018; Privitera, 2020; Saldana, 2021).

Findings

Four overarching themes emerged during the coding process: (1) *Health and Wellness of SBAE Teachers, Students, and Communities*; (2) *Support for SBAE Teachers*; (3) *Student Human Capital Development*; and (4) *Resources for SBAE Teacher Success*. Within the four overarching themes, 14 sub-themes emerged through the coding process (See table 2).

Table 2*Qualitative Themes and Sub-Themes Structure*

Theme	Sub-Themes
Health and Wellness of SBAE Teachers, Students, and Communities	Health Post Pandemic Policy Social/ Emotional Wellness Stress
Support Structures for SBAE Teachers	Support – Administration/ School District/ Families/ Stakeholders Time Appreciation/ Respect Teacher Motivation
Student Human Capital Development	Student Growth – FFA/ CDE/ SAE Leadership Communication Academic Progress Student Motivation
Resources for SBAE Teacher Success	Vision – Framework/ Implementation Plan/ Instructional Path Content – Curriculum/ Professional Development/ Technology

Health and Wellness of SBAE Teachers, Students, and Communities

The first theme, Health and Wellness of SBAE teachers, students, and communities, focused on factors that impacted an individual's and communities' quality of life as influenced by health, social-emotional wellness, and stress factors. Teachers overwhelmingly felt this year had been the toughest yet, demonstrated by participants' responses: "By far my hardest year in the classroom" (Jackie) and "I do think I am just emotionally fatigued from the past couple of years" (Garret).

Adding to the pressures, post pandemic policies continued to impact SBAE teachers, students, programs, and the community during the 2021-2022 school year. School districts' regulations still impacted student opportunities, as Beth reported, "it's all really hard" and "FFA was really difficult because it was so wishy-washy." While Martha added, "we went back and forth a lot from in-person to virtual schedules, and it's so inconsistent that FFA was almost impossible". The pandemic's significant rippling effect continues to exacerbate educational practices forcing the reevaluation of policies, supports, and the priorities of schools, teachers, students, and communities based on their perceived value.

An early-career teacher (Beth) who started teaching at the height of the pandemic stated: "I was very intentionally focused and built a name for my program without having to do all the real stuff. You know, it's really hard, it's really hard. It's fun right." Early-career teachers reported being overwhelmed with the amount of work required to manage a complete SBAE program and recall starting during the Covid-19 pandemic as "I was thriving last year and this year it's very hard, everything was virtual. I didn't have to fill out a single field trip form or any of that mess" (Oliver). Whereas established mid to late career teachers expressed anxiety, stress, and overwhelming emotional stress from not being able to support their students and manage their program, as seen here in the following participants' statement: "we lost the relationship, and it's terrible" (Ken). With all feeling unable to provide students with opportunities: "So

that's been the most challenging to me because that's like something you don't see coming... you can't plan for it, just pray about it" (Laura).

Specifically, teachers expressed concerns for students suffering from the current emotional and mental health crisis, where they had "to check in on kids' basic needs" (David). Furthermore, "We contacted kids to see how they really were. Do you need food? Are you safe? They needed someone to care" (Fern). Despite the efforts of teachers to build relationships while juggling pandemic policies, participants reported significant signs of an emotional and mental health crisis. "The effort is gone, like something is wrong, this year with them, like mentally they're not okay" (Heather). While Ken explained, "I have a bunch that are dealing with depression, right now, I know kids are feeling it and I see it in their effort." A majority of participants reported that their schools had incidences of self-harm and suicide. "We have had a lot of incidents this year, in the anxiety kids are having coming back to school. We have had more attempts and a loss" (Fern). Overarchingly, school no longer felt like a safe place for students. "Their [students] emotional cup is full... any sort of conflict, small conflict, that normally they could just roll with... they just can't" (Jackie).

All of this has led to teachers' struggling to cope with stress, with David reporting, "I can't get all of these kids caught up. I have way too many, and that weight is heavy. No way I can get everybody caught up." "The stress of trying to monitor messages in different ways, like that was way too much stress" (Laura). This leads to teachers feeling overextended "This year we're doing so much we are stretched so thin" (Anna). While Martha expressed, "I was feeling overwhelmed earlier in the year. Honestly, this whole year it's been overwhelming." Participants expressed the need to cope with stress: "... as a result, my mental wellbeing declined" (Ken). "I had to get away from the computer" (Nina). Tactics used to cope with stress ranged from healthy outlets like: "I shut the computer down, turned off my cell phone and I went and ran" (Emily). "I went home at four. I was in the best shape of my life. I worked out every day" (Beth). Whereas other participants shared: "I just, I just need to meltdown" (Garret), "I really struggled, obviously, like do the normal go home and cry. I was going to cry it out and then figure it out" (Martha). While others still turned to self-medication and avoidance to cope with the overwhelming stress and anxiety. Oliver concluded "sometimes you just want to quit your job."

I "stress about maintaining program standards, because when you're taking away contest, state convention, and summer leadership camp. How can I make everything happen for students?" (Iris). Explaining that maintaining classroom and program standards is a current struggle "... like personal life, I can't figure that part out yet and so I don't know. I'm planning a wedding, ... like normal teachers' stuff and I'm trying to figure out a normal balance" (Nina). To the point that SBAE teachers are planning their family life around their students and program needs "I had a short window to get married between livestock shows and FFA" (Chloe). With another participant admitting "I'm struggling to keep boundaries from home life and work, and it crosses a lot. It's stressful and led to my spouse saying I shouldn't be crying about a job" (Emily).

Even with this visible struggle between work-life balance, the heart of an SBAE teacher is apparent as participants discussed their drive to provide students opportunities. "So now their FFA experience is not as good as it could have been and that weighs heavy on my heart" (David). While Chloe elaborates: "trying to be a safe place, but also making sure they're [SBAE students] engaged. So. Yeah, that's been hard." To the extent of making life choices with students in mind: "... we have a lot of transportation issues. I have a van simply because I want to be able to transport as many as possible for FFA and community activities; that's been hard" (Iris). This internal conflict between teachers' well-being and their heart for their programs is rooted deeply in the need desire to provide opportunities, build relationships, and develop students' potential, as "Students just need someone to care. They don't care what you know until they know that you care" (Fern).

Support for SBAE Teachers

The theme *Support for SBAE teachers* depicted the need for support to function within the classroom and be successful in FFA and SAE. Although schools typically have support structures (i.e., administration, guidance counselors, resources officers, and social workers) in place, SBAE teachers reported that these “departments” always seem to be unavailable. Fern’s representative comment was: “...they [those in teacher support roles] are just as overwhelmed as we are” and “our school is understaffed, and district policies keep changing.” Other participants agreed with Iris’ sentiment, “we don’t have enough subs and who wants to be a para[professional] for 15 dollars an hour.” Over a third of the participants reported many support departments being offered, such as “...guidance department, social worker, [and] psychiatrist, mostly due to suicide issues...” Yet, others shared a lack of support from guidance counselors. Teachers fell into one of two camps related to support, those who felt supported and respected and those who felt underappreciated with a lack of support. Jackie and Beth explained the benefit of “a wellness room with counselors and admin always available” and how it provides a “safe place for students.” Laura described the investment that has been made using “data-driven decisions to support students’ needs ... academic and social-emotional needs”, which was echoed by others. With an emphasis being placed on developing “a positive and inclusive culture” that includes “parents, students, teachers, and stakeholders” to make the best choices for students by Jackie. Other teachers shared similar sentiment as they were “close with the administration” (Ken) and felt “respected and appreciated for what [they] do for the school” (Martha). Some schools offer teachers and staff wellness rooms that include “massage chairs, snacks and drinks” and have invested in teacher social-emotional wellness by offering department social activities like the “art department hosted painting and CTE hosted cornhole and BBQ.” Such activities created a positive atmosphere and culture even when participants were faced with overwhelming and stressful circumstances.

Unfortunately, the majority of teachers felt a lack of appreciation and support, as some explained they were not receiving the same support as core courses: as Chloe identified “the training and resources that academics are constantly getting... could be used in our classroom.” Over half of the teachers expressed similar sentiments of “...we’re not recognized”, “we’re kind of stuck.” and “as electives, we are thrown to the wolves.” While Emily recalled, “they have overfilled my classroom. I don’t have enough desks, but they want them to earn an industry certification.” The lack of administrative support in managing student behaviors has created dangerous working conditions: “by far the kids are out of control. We have four to five fights every single day” (Garret). Participants working in these under-supported schools continue to feel overwhelmed and disrespected.

Overarchingly, time was the single-most limiting factor related to support as “there is never enough” (Chloe). This includes “losing planning period multiply times a week” (Martha), to work coverage for teachers who were out sick. With no additional prep time, “department meetings on the latest Covid protocols” (David) and “All of these meetings, duties, and class coverage [which] takes away my time to provide opportunities for students” (Laura). The loss of time and support led many participants (Anna, Beth, Emily, Garret, Heather, Iris, Ken, and Nina) to question if it was time to quit teaching or leave SBAE.

Student Human Capital Development

SBAE Teachers’ primary role is to *develop human capital* within their students through classroom/laboratory instruction, FFA, and SAE. This development takes place in all three components, not just within the FFA component, but participants found the lack of extracurriculars and changing pandemic policies made it challenging to engage in meaningful development of skills and maintain motivation. “To me, as far as a setback, I believe, so firmly in the value of FFA and leadership and I think we have lost so much of that” (David). Martha adds: “officers basically get to conduct a face-to-face and that was limited.” Participants feel the need to refocus their programs to meet students’ current needs. “Honestly, I guess, go back to the motto and I feel like I need to finish out and focus more. My time with them needs to be more hands-on” (Fern).

As participants reflected on the State FFA Association's support provided mixed reviews. While some participants appreciated the redirection to virtual CDEs and leadership training: "it was very hard to get kids to participate in FFA event. FFA tried to get these kids involved still by doing everything virtually" (Oliver). Heather and others expressed concern: "FFA has not gone back to what it was before Covid. So, they're trying to keep everything digital. My kids are good test takers but that's not the point of FFA." With all expressing the need to get students engaged: "Getting students to buy in ...that social aspect, that's so important, that's one of the biggest parts of FFA. It's hard to build leadership when you're on a screen." A common concern is the lack of opportunities for all members and advisors. "[Leadership events] filled up before we could register, and teacher professional development was canceled due to lack of participation" (Emily).

Communication is a critical factor in participants' feeling supported and valued by schools, students, and parents. "...different ways of communication with parents" like "Google classroom", "Instagram", "emails", and "social media." These are all different communication tools that help to build relationships and support students. "Teacher-student communication is important to check in and know they are okay" (Ken). Participants agreed that communication increased their public relations has increased their program support. While others see the value but are struggling to make connections: "Honestly, communicating with students about events and I'm still figuring that out... how am I supposed to make parent connections" (Chloe). The importance of communication with the administration was also considered a factor for program support. "It's just more hoops, and from an administrative level, it's just concerning and stressful" (Ken). Explaining the weight of changing pandemic policies on the administration. "...step up communication with administration...there are many challenges. My admin is all new and they didn't know what to do with me. I had to explain a successful ag program" (Garret).

Students are academically behind "some as much as 3 years from where they should be academically and mature wise" (Fern). This often causes teachers to have to "rethink the level of expectation" (Beth). Coupled with the lack of support from school administration for grading: "makes it a struggle getting them back into a swing because they got so used to doing nothing..." (David). Making teaching "harder to keep their attention" (Anna) because districts have made "allowances" (Jackie) and it's a "struggle to get students to understand they were being held accountable now" (Heather). All participants emphasized the importance of making content "real world," "hands-on" and "not boring" to keep students engaged and actively participating in courses. Motivation impacts teachers' ability to develop students' human capital across the three-component model for SBAE, while participants teaching at the high school level shared that students are "withdrawn," "unable to be motivated," and have "realigned their priorities." Whereas middle school participants expressed, their students are "excited to be involved" and "looking for opportunities." For all participants, "engaging students" in "community service", "leadership events", "FFA" and "SAE projects" were essential for developing students' human capital. "I have focused heavily on FFA because I think they need it now" (Laura).

Resources for SBAE Teacher Success

SBAE teacher participants reported a consistent need for *resources* (i.e., curriculum, content, frameworks, and project outlines), as teachers who felt successful had a positive growth mindset and a vision for implantation, a "plan," "structure," "ideas for improvement" or "goal" to support student learning. As participants discussed their visions, they used sentiments like "having to adapt to make things more fluid" (Heather), "something that's realistic" (Fern), and "cutting edge of innovation" (Oliver). Participants have embraced the opportunity to "adapt," "transition," and "better build content and program activities" (Ken). Participants with a plan had a higher level of self-efficacy with implementing SAE projects with success during the pandemic and now, "My biggest modification came in was I took what kids were going in their life and what works for them to make their SAE projects..." (Beth), "they were doing something productive and agricultural-related" (Emily), and "kept them engaged ... and managing their SAE" (Laura). Participants described the value of students having a project that is individualized

instead of just assigned. “They have really bought into the idea of having something that’s their own project; they’ve been wanting something to be proud of” (Garret).

Although resources were often discussed, the “need for training/ support” on how to use & implement technology was reoccurring. When late-career teachers discussed trying to flip the curriculum to work in different modalities, they reported: “It got overwhelming really quick” (Ken). Participants expressed a need for more training, preparation time, and user-friendly resources to flip instruction. “Yeah, we learned some lessons on making quality digitally delivered instruction” (Martha). Additionally, teachers asked for content specific to Agriculture, Food, and Natural Resource (AFNR) pathway standards and training to better meet students’ social-emotional needs. “I see growth in myself, embracing change and updating lesson plans. If I’m bored, they’re bored, so I am switching it up to find new things and new resources” (Anna). Echoed by another saying: “It’s all about Beekeeping, virtual field trip ...great resource but the timeframe offered didn’t work. Making videos available would be helpful” (Fern). Content resources and framework discussed included: “ICEV,” “One Less Thing,” and “AET.” Participants explained that having premade content like ICEV was helpful but they “didn’t rely on it as much as others, but prepackage deals don’t fully meet mine or my students’ needs” (Emily). Many expressed that they utilized industry certifications and AET as tools to drive the direction and purpose of their instruction. “We have adapted our land lab to reflect practices we are teaching for industry certification and sharing it on Instagram” (Heather).

Although participants are moving to post-pandemic policies and are seeing a decline in the need to develop hybrid content many have reported that technology integrations used during the hybrid height of pandemic will continue to be utilized in their classrooms. “All of my assignment submissions will stay paperless” (David). Ken sharing: “I have invested a lot of time to develop videos... safety stories I have told for years are now broken into small sections.” This idea of a “digital learn platform” makes the “classroom easier to manage” but also caused stress about providing “high-quality instruction” to meet students’ needs.

Conclusions, Implications, and Recommendations

SBAE teachers have basic mental, physical, and emotional wellness needs that impact their program and work-life balance. Struggle and stress being the most used wording throughout participant interviews, demonstrate the challenge of achieving work-life balance. Stress and anxiety were found to be major factors complicating SBAE teachers’ ability to cope with stress which aligns with previous research from Doss et al. (2023) and Shoulders et al. (2021). Teachers agree that this post-pandemic year they continued to struggle with stress, overwhelming anxiety, and emotional fatigue; early-career teachers still feel the extreme pressure of trying to establish and maintain a complete program, whereas mid to late-career teachers were relieved to return to some version of normal. This could be attributed to career phases but may indicate that teachers who started during the pandemic need additional support to continue within the profession (Traini et al., 2020).

The high expectations SBAE teachers have for themselves and their programs are a result of their desires to serve and heart for their students and communities, especially by providing student opportunities. Cultivating relationships with students, developing student human capital, and providing mentorship are aspects that SBAE teachers take pride in and identify as. Much to the detriment of SBAE teachers’ emotional and mental status due to its connection to their self-perceived value and worth. The importance of relationships is supported by Doss et al. (2023), which found that relationships with students seemed to improve job satisfaction for SBAE teachers, but the findings suggest that while it may be a major factor in why SBAE teachers stay in the profession, it doesn’t mean that support in this area is not essential for program success. Potentially aligning with teachers’ need for the association found in relationships within

the profession, school site important, consistent with teachers' need for associations within the profession, school, community, and student mentorship, as outlined by Fisher & Royster (2016).

Coping strategies were found to range from healthy habits and outlets like increased exercise, unplugging from technology, and social interaction, to unhealthy habits and outlets like substance misuse, avoidance, burnout, and emotional/mental breakdown. This suggests that SBAE teachers need support at a basic human level to promote individual wellness, as supported by Maslow's hierarchy of teachers (Fisher & Royster, 2016), basic human needs must be met before individuals can ascend to higher levels. When these essential needs are not addressed, SBAE teachers often feel stuck, exhausted, and overwhelmed by the stress, leading them to find balance, support, and purpose outside of the profession (Sorrenson et al., 2016), which was echoed throughout the interviews. Ultimately, SBAE teachers make decisions that provide them with safety and security, because the individual supports needed are missing.

The support needs of SBAE teachers were not limited to *health and wellness* but were ever-present within school-based structures. While SBAE teachers agreed that schools offered many departments of support, they were still found to lack the human resources to provide relief for teachers, which is evident in their inability to get students to support staff in times of crisis. This leads teachers to question if they are doing enough to support students' social/emotional needs, becoming the first line of social/emotional support for students. As a byproduct, SBAE teachers do not feel safe and lack confidence in what was once a secure, protected, and valued profession (Fisher & Royster, 2016). Perhaps if we addressed SBAE teachers' support needs, they would not struggle with stressors, allowing them to feel valued and respected, helping to develop essential career-specific human capital (Eck et al., 2019; Fisher & Royster, 2016). Without the development of teachers' basic *subsistent* and *security* needs through career-specific human capital development, they are limited, thus effectively creating a struggle to develop students' human capital through the three-competent model for SBAE (Eck et al., 2019; FFA, n.d.; Fisher & Royster, 2016; King et al., 2013; Thornton et al., 2020).

The heart of an SBAE teacher is devoted to providing experiences and opportunities through their programs for their students, but how can they be effective in this practice if they themselves lack the support needed to achieve this goal? Participants agreed that the perceived value of academics, education, and motivation to achieve is a current struggle for students, which is further exacerbated by "wishy-washy" school district policies leading students' academic advancement and maturity development to slow and fall short of grade-level expectations, which is echoed as part of the global education crisis (Pressley et al., 2021). Unfortunately, SBAE teachers are then in a lose-lose situation between justifying their programs, meeting the emotional/mental needs of students, and providing the motivation and encouragement needed to further students' human capital development (Eck et al., 2019; FFA, n.d.; King et al., 2013; Thornton et al., 2020). Students were left wanting and instead have reprioritized their interest to what they perceive to be valuable (Eck et al., 2019; FFA, nd; Fisher & Royster, 2016; Thornton et al., 2020).

SBAE teachers possess a tool to restore motivation and meet social/emotional needs: building relationships and rapport with students (Doss et al., 2023; King et al., 2013; Terry & Briers, 2010). These relationships are forged by providing students with opportunities; evaluating their strengths, weaknesses, and needs; and providing the appropriate encouragement to take risks and develop new skills, thus developing the student's human capital and potential for the future (Eck et al., 2019; FFA, n.d.; Terry & Briers, 2010). This development requires support, facilitation of opportunities, social interaction, and engagement of students' interests (FFA, n.d.; Terry & Briers, 2010). Sadly, many participants found these opportunities limited, leaving State and National FFA Associations trying to determine best practices to support teachers and provide opportunities for all students.

SBAE teachers need resources to be successful (DiBenedetto et al., 2018; Doss et al., 2023; Eck et al., 2021; Thornton et al., 2020; Voges, 2022; Yopp et al., 2020), which was found to be an underlying

issue reported during this study and is evident in each of the three-components. SBAE teachers with a vision, plan, direction, or goals had the motivation and the growth mindset to keep improving even at the height of the pandemic. In contrast, teachers who needed a structure found themselves overwhelmed and struggling to keep students engaged. Historically, SAE programs have been an area in which teachers needed support to effectively implement and manage students' programs and plans (DiBenedetto et al., 2018; King et al., 2013), often being seen as additional paperwork and stress for the SBAE teacher (Doss et al., 2023). Unique to this study, SAE was an aspect in which implementation was found to be a success or failure depending on teachers' plans and ability to adapt the practice to different learning modalities. Teachers who had a plan for SAE expressed great success and reported increased engagement and motivation, allowing students to become excited about learning again, as opposed to those without a plan whose students have shifted their priorities and interests away from the SBAE program. Practical recommendations include providing clear structures and strategies for implementation, reflection, and program management to support SBAE teachers' current and future practice.

Teachers varied within the levels of Maslow's Hierarchy for Teachers (Fisher & Royster, 2016), especially when considering the individual components of the three-component model for SBAE. Perhaps the three-component model becomes unbalanced across programs due to the level of support and SBAE teacher human capital related to each component, as teachers cannot develop the human capital in students that they themselves do not possess. Could it be that the needs identified justify an SBAE support model that is human-focused? Perhaps the conceptual model should be used as a proactive approach to teacher support, success, and well-being. Traini et al. (2020) refers to early-career teachers as being driven into a success trap exacerbated by this phase of their career and a time of silence that compounds their work stress and isolates them from the profession. Perhaps this phenomenon is related to a lack of *security* and *association* within the *Conceptual Model of SBAE Teacher Support*, leading them to establish unhealthy boundaries due to the drive to establish their worth.

It is recommended that leaders in the profession help teachers establish healthy boundaries to maintain work-life balance and reduce stress and anxiety. Therefore, it will take someone who understands the distinct needs and desires of an SBAE to affect teachers' work-life balance. Self-care talk alone will continue not to address the root of the issue as teachers search for balance and coping strategies. Perhaps SBAE at large should redefine what healthy relationships between work and personal life entail. To address these needs, state and district level support should develop professional learning networks to meet teachers' social needs while providing safe and accessible space (i.e., virtual/social media) for discussing career-specific concerns. Additionally, teacher preparation faculty should provide early career and preservice teachers with essential skills and coping strategies to navigate and establish healthy career boundaries, focusing on awareness of the stressors that exist within the profession. Continued curriculum, teaching methods, and technology training should be considered for mid to late-career SBAE teachers to meet their in-service needs.

Additional recommendations include providing justification of SBAE programs' value and a vision for effective programs and their potential for developing student human capital to school districts and CTE supervisors. As State and District policies shift post-pandemic, justifying SBAE programs worth is essential, and perceived value and understanding of SBAE teachers' additional roles is critical for developing respect, value, and support for the work of teachers. Currently, there is a lack of reward for SBAE teachers within the classroom/lab component, which could be a contributing factor to SBAE teachers' lack of value for developing their human capital within this component.

Recommendations for research include the validation of the Conceptual Model for SBAE Teacher Support to see if it could be an effective lens for meeting and supporting the human development needs of teachers. This study should be replicated in other regions to determine if the individual needs of SBAE teachers are similar or differ between regions based on SBAE program expectations and support structures.

Maslow's hierarchy for teachers (Fisher & Royster, 2016), currently lacks the alignment for emotional health and well-being within its current structure. Future studies should look to see if support needs differ by gender, ethnicity, race, and certification pathway to better meet the individual needs of SBAE teachers.

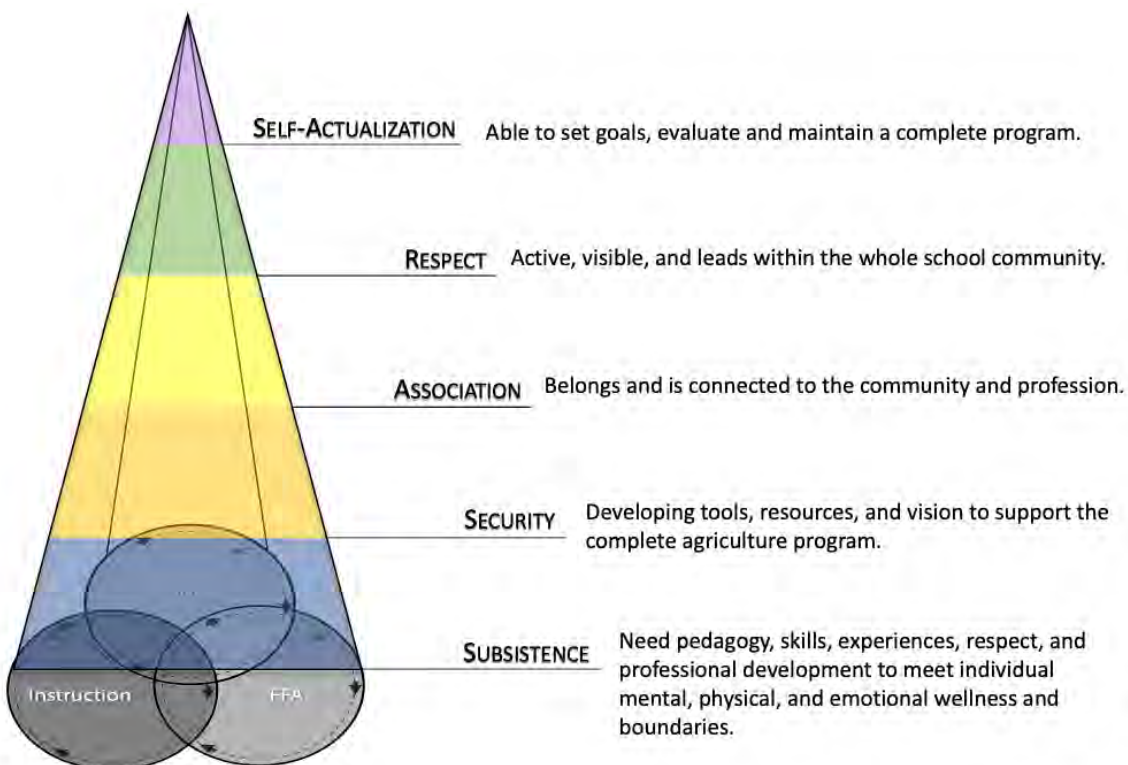
Further research is needed to understand the impact of these needs and how they impact an individual's ability to achieve self-actualization. Research should explore the perspectives of SBAE supporters to evaluate if the needs identified in this study are visible and if the supports are in place to fill the gaps identified. Research should explore the perspectives of SBAE state and district supporters to evaluate if the needs identified in this study are visible and if the supports are currently in place to fill the gaps for SBAE teachers.

Discussion

Teachers have the most significant impact on a student's future success (Chetty et al., 2014), but currently, SBAE teachers do not have the support, structures, and resources to bridge the gaps and retain effective teachers within the profession (Marsh et al., 2023). To ensure the future of the profession and retain effective SBAE teachers, changes are needed to meet their individual human needs. Aligning with recommendations of Marsh et al. (2023), to evaluate the needs of 21st century SBAE teachers as compared to the *conceptual model of support for SBAE teachers* as compared to where needs were potentially aligned within previous research. Marsh et al. (2023) represents the identified SBAE teachers' needs based on alignment with Maslow's hierarchy of teacher needs (Fisher & Royster, 2016), which generalized the alignment of needs within the hierarchy, leading to the call for an updated model to better represent the experiences of 21st century SBAE teachers (see Figure 2).

Figure 2

Updated Conceptual Model of Support for School-Based Agricultural Education Teachers



The interview process unveiled stress and struggle as the most consistently used words discussing relationships between SBAE program management, career, and personal well-being representing the strain between career dedication and job satisfaction. Could it be that these concerns connect back to career burnout within SBAE, as 26 of the 42 identified SBAE teacher needs from a nationwide Delphi (Marsh et al., 2023) were found at the level of subsistence within the hierarchy representing the critical survival of SBAE teachers. The subsistence level of the hierarchy retained identified items pertaining to pedagogical knowledge, resources, skills, essential support, work-life balance, and mental, physical, and emotional wellness but expanded to include professional boundaries, coping skills, and respect based on the lived experiences of SBAE teachers. Respect descended within the hierarchy from association to subsistence due to the participants' perceived lack of respect and value within their programs.

The Emerging themes within the security level of the hierarchy represent a greater need for structure to support practice within all aspects of a complete program. A need for practical resources that provide plans and structures allowing teachers to develop a vision for easy modification and adaptation to teachers' daily practice is essential for SBAE teacher preparation programs and supporters to consider for in-service and pre-service teachers. Additionally, access to tools that support the value of SBAE programs and provide resources for SBAE teachers to advocate for the value of their SBAE program are needed to provide teachers with the essential security to advance within the profession and hierarchy.

The association level expanded (See Figure 2) to include the need for relationships, belonging, and connectivity within the SBAE teachers' school and professional communities. SBAE teachers need to find their fit within the community, which encompasses parents and community expectations, and local administration support. Expanding the view of SBAE teachers' need for belonging, community, and connection beyond traditional professional development to a community of practice provides autonomy that meets their individual needs and furthers their own human capital development as effective SBAE teachers.

The majority of SBAE teachers' emerging needs align with the basic human needs of Maslow's hierarchy: physiological and safety (Maslow, 1943) and Maslow's hierarchy of teachers: subsistence and security (Fisher & Royster, 2016). Professional development, curriculum, technical skills, and resources seem to be developed at the levels of association and respect, perhaps making them hard to utilize and integrate into an SBAE teacher's daily practice. Could it be that this misalignment adds to the ineffectiveness of the professional development, curriculum, and technical skill acquisition being shared? Perhaps furthering the gap between SBAE teachers' human needs and the support needed to improve SBAE retention.

References

- Adnot, M., Dee, T., Katz, V., & Wyckoff, J. (2017). Teacher turnover, teacher quality, and student achievement in DCPS. *Educational Evaluation and Policy Analysis*, 39(1), 54–76.
<http://www.jstor.org/stable/44984570>
- Carver-Thomas, D., & Darling-Hammond, L. (2019). The trouble with teacher turnover: How teacher attrition affects students and schools. *Education Policy Analysis Archives*, 27, 36.
<https://doi.org/10.14507/epaa.27.3699>
- Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood. *American Economic Review*, 104(9), 2633–2679.
<http://doi.org/10.1257/aer.104.9.2633>

- Coldwell, M. (2017). Exploring the influence of professional development on teacher careers: A path model approach. *Teaching and Teacher Education*, 61(1), 189–198. <https://doi.org/10.1016/j.tate.2016.10.015>
- Cowan, J., Goldhaber, D., Hayes, K., & Theobald, R. (2016). Missing elements in the discussion of teacher shortages. *Educational Researcher*, 45(8), 460–462. <https://doi.org/10.3102/0013189X16679145>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- DiBenedetto, C. A., Willis, V. C., & Barrick, R. K. (2018). Needs assessments for school-based agricultural education teachers: A review of literature. *Journal of Agricultural Education*, 59(4), 52–71. <https://doi.org/10.5032/jae.2018.0452>
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: the tailored design method*. John Wiley & Sons.
- Doss, W., Rayfield, J., & Lawver, D. (2023). A national study assessing the influence of perceived challenges faced by school-based agricultural education teachers on their ability to do their job. *Journal of Agricultural Education*, 64(3), 184–202. <https://doi.org/10.5032/jae.v64i3.2476>
- Eck, C. J., & Edwards, M. C. (2019). Teacher shortage in school-based, agricultural education (SBAE): A historical review. *Journal of Agricultural Education*, 60(4), 223–239. <https://doi.org/10.5032/jae.2019.04001>
- Eck, C. J., Robinson, J. S., Ramsey, J. W., & Cole, K. L. (2019). Identifying the characteristics of an effective agricultural education teacher: A national study. *Journal of Agricultural Education*, 60(4), 1–18. <https://doi.org/10.5032/jae.2019.04001>
- Fisher, M. H., & Royster, D. (2016). Mathematics teachers' support and retention: Using Maslow's hierarchy to understand teachers' needs. *International Journal of Mathematics Education in Science and Technology*, 47(7), 993–1008. <https://doi.org/10.1080/0020739X.2016.1162333>
- Gillani, A., Dierst-Davies, R., Lee, S., Robin, L., Li, J., Glover-Kudon, R., Baker, K., and Whitton, A. (2022). Teachers' dissatisfaction during the COVID-19 pandemic: Factors contributing to a desire to leave the profession. *Frontiers in Psychology*, 13, 940718. <https://doi.org/10.3389/fpsyg.2022.940718>
- Hasselquist, L. & Graves, N. A. (2020). CTE teacher retention: Lessons learned from mid-career teachers. *Career and Technical Educational Research*, 45(1), 3–16. <https://doi.org/10.5328/cter45.1.3>
- Hutchison, L. F. (2012). Addressing the stem teacher shortage in American schools: Ways to recruit and retain effective stem teachers. *Action in Teacher Education*, 34(5–6), 541–550. <https://doi.org/10.1080/01626620.2012.729483>
- Ingersoll, R. M., & Tran, H. (2023). Teacher shortages and turnover in rural schools in the US: An organizational analysis. *Educational Administration Quarterly*, 59(2), 396–431. <https://doi.org/10.1177/0013161X231159922>

- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499–534. <http://www.jstor.org/stable/3202489>
- King, D., Rucker, K. J., & Duncan, D. W. (2013). Classroom instruction and FFA/SAE responsibilities creating the most stress for female teachers in the southeast. *Journal of Agricultural Education*, 54(4), 195–205. <http://doi.org/10.5032/jae.2013.04195>
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741–756. <http://doi.org/10.1037/a0019237>
- Marsh, K. N., Eck, C. J., Layfield, K. D. & Donaldson, J. L. (2023). Identifying school-based agricultural education teacher needs and support gaps. *Advancements in Agricultural Development*, 4(3), 117–130. <https://doi.org/10.37433/aad.v4i3.347>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <http://doi.org/10.1037/h0054346>
- Moser, E. M., & McKim, A. J. (2020). Teacher retention: A relational perspective. *Journal of Agricultural Education*, 61(2), 263–275. <https://doi.org/10.5032/jae.2020.02263>
- Pressley, T., Ha, C., & Learn, E. (2021). Teacher stress and anxiety during COVID-19: An empirical study. *School Psychology*, 36(5), 367–376. <https://doi.org/10.1037/spq0000468>
- Privitera, G. J. (2020). *Research methods for the behavioral sciences*. Sage.
- Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. (2008). *Handbook on agricultural education in public schools* (6th ed.). Thomas Delmar Learning.
- Saldana, J. (2021). *The coding manual for qualitative researchers*. Sage.
- Sancar, R., Atal, D., & Deryakulu, D. (2021). A new framework for teachers' professional development. *Teaching and Teacher Education*, 101(1), 1–12. <https://doi.org/10.1016/j.tate.2021.103305>
- Shoulders, C. W., Estepp, C. M., & Johnson, D. M. (2021). Teachers' stress, coping strategies, and job satisfaction in COVID-induced teaching environments. *Journal of Agricultural Education*, 62(4), 67–80. <https://doi.org/10.5032/jae.2021.04067>
- Sorensen, T. J., McKim, A. J., & Velez, J. J. (2016). A national study of work-family balance and job satisfaction among agriculture teachers. *Journal of Agricultural Education*, 57(4) 146–159. <http://doi.org/10.5032/jae.2016.04146>
- Terry, R., Jr., & Briers, G. E. (2010). Roles of the secondary agriculture teacher. In R. Torres, T. Kitchel, & A. L. Ball (Eds.), *Preparing and advancing teachers in agricultural education* (pp. 86–98). Curriculum Materials Service, The Ohio State University.
- The National FFA Organization [FFA]. (n.d.). The National FFA Handbook. <https://www.ffa.org/agricultural-education/>

- Thornton, K. M., Coleman, B. M., Bunch, J. C., & Roberts, T. G. (2020). Professional life phases: Identifying professional development needs for Florida agriscience teachers. *Journal of Agricultural Education*, 61(4), 283–295. <http://doi.org/10.5032/jae.2020.04283>
- Traini, H. Q., Yopp, A. M., & Roberts, R. (2020). The success trap: A case study of early career agricultural education teachers' conceptualizations of work-life balance. *Journal of Agricultural Education*, 61(4), 175–188. <http://doi.org/10.5032/jae.2020.04175>
- van Manen, M. (2014). *Phenomenology of practice: meaning-giving methods in phenomenological research and writing*. Left Coast Press.