

Female Agriculture Teachers' Lived Experiences and Perceived Professional Development Needs when Teaching Students with Special Needs

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Abstract

Although previous research in agricultural education has described the needs of SBAE teachers in regard to teaching students with special needs, the reported findings have been overwhelmingly quantitative in nature and have over-relied on females' perspectives. As such, the purpose of this case study was to explore the experiences and professional development needs of female SBAE instructors in Louisiana when teaching students with special needs. Qualitative data were analyzed using the Borich (1980) model, which identified emergent themes of (1) perceived importance and (2) perceived ability. Additional sub-themes were the perceived importance of identified approaches used to accommodate students and perceptions when teaching students with special needs. Meanwhile, in the theme of perceived importance, participants identified prior education and professional development experiences as critical factors to success when teaching students with special needs. As a result of these findings, we recommended that state agricultural education leaders promote professional development opportunities to improve how female teachers can accommodate students with special needs, specifically in laboratory settings. Further, we recommend that future professional development for women SBAE teachers focus on specific disability types and inclusion strategies, rather than broad and non-specific special education training experiences.

Keywords: Professional development; school-based agricultural education; teacher needs; special needs; women.

Introduction and Literature Review

In recent years, classrooms have become increasingly diverse. As a result, Hinders (1995) and Stankov et al. (2015) stressed that education should celebrate students' individuality rather than restrict opportunities based on their perceived limitations. In the 2018-2019 school year, 14% of students were classified as individuals with special learning needs, the highest percentage reported to date (NCES, 2020). Despite this growing population of students, Aschenbrenner et al. (2010) described a need for more research on identifying successful strategies for teaching students with special needs in agricultural education, especially since this program has been reported to serve diverse learners effectively (Casale-Giannola,

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2012). Specifically, agricultural education has been credited with providing students with special needs with diverse opportunities and experiential learning, which has been reported to increase students' confidence and engagement in agricultural coursework (Harvey, 2001; McLeskey & Weller, 2000).

In addition to the benefits of a hands-on classroom environment, in a study conducted with North Carolina agricultural education teachers, 87% of teachers believed Supervised Agricultural Experiences (SAEs) helped students with special needs set career goals and enhance their social skills (Johnson et al., 2012). To successfully teach students with special needs in agricultural education, the facilities and the total program must be considered (Henderson, 2001). In 1996, the National FFA Organization published a guide entitled *Bridging Horizons* to provide FFA advisors with ideas for how to navigate accommodating students with special needs. The guide highlighted the benefits of teaching students with special needs in agricultural education, including increased self-esteem and self-reliance through program involvement (National FFA Organization, 1996).

Although the benefits of teaching students with special needs have been documented, many barriers remain. For example, Cologon (2013) reported little understanding of accommodation practices, a lack of facilities and equipment, and inadequate education and professional development for teachers. Despite these deficits, practices to successfully accommodate students with special needs have increased each year in the U.S. (USDOE, 2020). As such, Pirtle (2012) called for SBAE classrooms to provide appropriate strategies and accommodations for the growing number of students with disabilities. However, Giffing et al. (2010) found that while 90% of agricultural education teachers who participated in their study indicated they had a basic understanding of strategies to accommodate students, only 76.9% agreed that students with special needs should be allowed to enroll in their classes. To address this issue, Johnson et al. (2012) described how teacher preparation programs could foster more positive perceptions of teaching students with special needs by having preservice teachers implement student accommodations during early field experiences.

In addition to preservice education, professional development in regard to accommodating students with special needs has been essential to supporting SBAE instructors, especially given the disproportionately large percentage of students with special needs in SBAE (Smith & Rayfield, 2019). Professional development should provide teachers with specific opportunities to gain confidence in instructional strategies that they can use to meet their students' needs (Allinder, 1994). In particular, SBAE instructors should be prepared for and expect to work with students with a wide range of abilities. Therefore, they should also be required to engage in professional development opportunities to improve the teaching of students with diverse needs (Dormody et al., 2006). However, it should be noted that providing adequate professional development can be challenging as teachers' and students' needs change over time based on trends in the profession and additional external factors (Easterly & Myers, 2018).

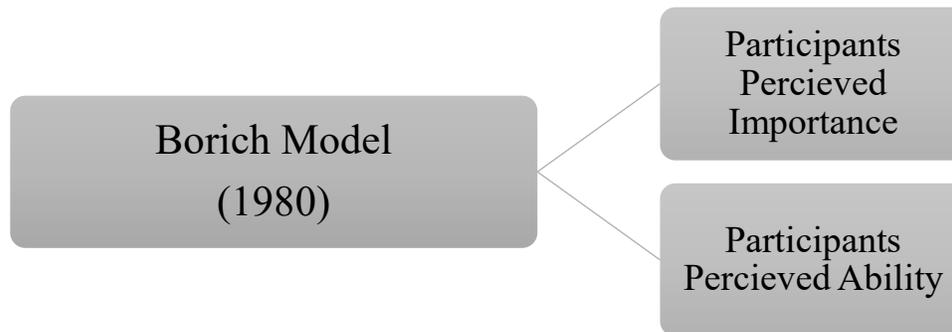
Research has also suggested that teachers' professional development needs differ based on educational and demographic differences (Roberts et al., 2020). For example, data collected in 2019 revealed that 74% of license-eligible completers were female (Foster et al., 2020a). However, research (Aschenbrenner et al., 2010; Dormody et al., 2006; Faulkner & Baggett, 2010; Giffing et al., 2010; Pense et al., 2012; Stair et al., 2010) on the professional development needs of SBAE teachers concerning teaching students with special needs has overwhelmingly featured data from the male perspective. Professional development has been described as a critical component to address deficiencies and emergent changes in education (Birman et al., 2000). However, effective professional development opportunities should be designed to address teachers' specific needs and help develop skills that lead to teacher success and retention. In addition to the lack of data on the professional development needs of female SBAE teachers on this phenomenon, previous studies have also overwhelmingly used quantitative measures. Consequently, a need emerged to examine this issue using a qualitative lens that focused on the perspectives of women SBAE teachers in Louisiana (LeJeune & Roberts, 2020).

Conceptual Framework

We used the Borich (1980) needs assessment model as a lens to analyze this phenomenon. Using this model, we investigated participants' *perceived importance* regarding accommodating students with special needs and their *perceived ability* to accommodate those students in their programs. When comparing their importance and relevance, this lens helped identify discrepancies concerning women SBAE teachers' needs in regard to accommodating students with special needs (see Figure 1).

Figure 1

Borich's (1980) Conceptual Framework



Purpose and Research Questions

The purpose of this qualitative investigation was to explore the experiences and professional development needs of female SBAE instructors in Louisiana when teaching students with special needs. This study aligned with the American Association for Agricultural Education's National *Research Priority 7: Addressing Complex Problems* (Andenero et al., 2016). Two research questions guided this investigation: (1) What were the experiences of female Louisiana SBAE instructors when teaching students with special needs? and (2) What were the professional development needs of female Louisiana SBAE instructors when teaching students with special needs?

Methodology

For this study, we used an instrumental case study approach (Stake, 1995). The case was bounded by *gender, place, and time*, i.e., each participant was a female SBAE instructor in Louisiana during the 2020-2021 school year. We also purposefully sampled participants based on their certification type to ensure representation from both traditionally certified as well as alternatively certified teachers (Creswell & Poth, 2018). To collect data, we conducted semi-structured interviews with participants (Stake, 1995). Data were also triangulated using a quantitative questionnaire in which participants responded to their professional development needs on a 5-point Likert-type scale. However, only qualitative data was featured in this manuscript. It should be noted that all participants identified as white females. Efforts were made to expand the participant demographic range; however, our efforts were ultimately unsuccessful. In adherence to ethical and IRB stipulations, each participant was assigned a pseudonym in the investigation (Tracy, 2010). A brief overview of each participant has been provided to illuminate their personal and professional characteristics (see Table 1).

Table 1*Overview of Qualitative Participant Personal and Professional Characteristics*

Pseudonym	Age	Previous Special Education Professional Development	Completion of Special Education Course	Gender	Highest Degree Earned	Licensure Certification	Years Teaching
Margret	28	No	Yes	Female	Bachelor	Traditional	7
Susan	31	No	No	Female	Bachelor	Alternative	4
Haley	48	No	No	Female	Master	Alternative	19
Rachel	23	No	Yes	Female	Bachelor	Traditional	3
Emma	35	Yes	Yes	Female	Master	Traditional	12
Hannah	36	Yes	Yes	Female	Bachelor	Alternative	15

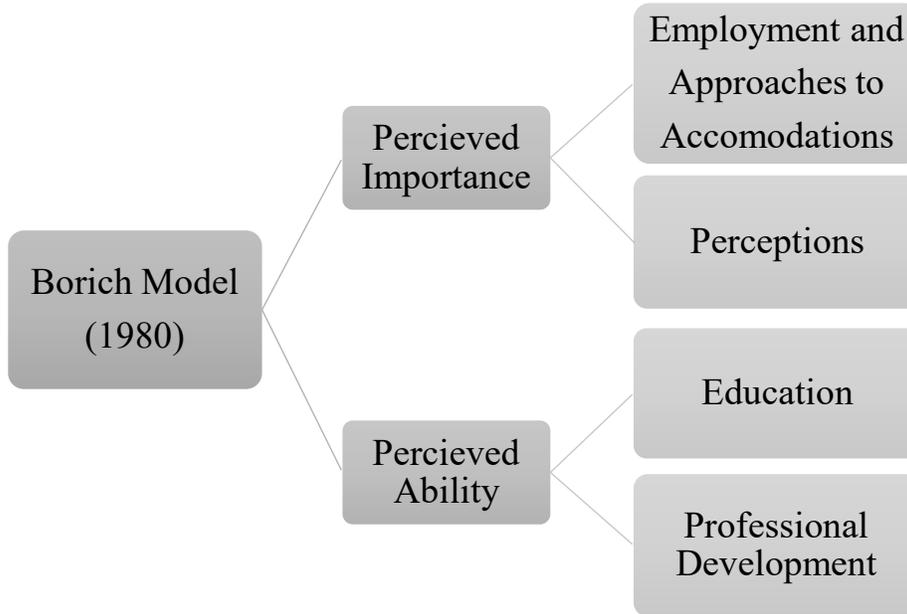
Data Analysis

After data collection, we transcribed the interviews verbatim. Then, we used Saldaña's (2021) coding procedures to facilitate an in-depth analysis. Through this process, codes were generated using participants' words to advance meaning. Additionally, our coding helped to "summarize, distill, [and] condense" data to accurately describe our emergent findings (Saldaña, 2021, p. 5). To accomplish this, we used first-cycle coding approaches to begin our analysis using an "open-ended approach" (Saldaña, 2021, p. 121) which consisted of in-vivo, descriptive, and structural coding. The use of in-vivo coding provided identification of verbatim words or short phrases, as stated by the participants (Saldaña, 2021). Next, descriptive coding, also known as topic coding was used to develop direct words or phrases to summarize the topic (Saldaña, 2021, p. 102). The use of in-vivo and descriptive coding allowed the use the direct quotes of participants to provide a summation of a topic. Because of multiple participant transcripts, the final first-round coding method employed was structural coding (Saldaña, 2021) in which data were organized based on the study's research questions. After concluding the first-round coding cycles, 554 unique codes emerged, which were then further analyzed through a second-cycle coding approach (Saldaña, 2021).

Second-round coding cycle created a more profound sense of the categorical and conceptual meaning of the first-round codes and resulted in a reduced list of codes connected to emergent concepts (Saldaña, 2021). The use of axial coding served as second cycle coding, which identified categories and their prominence within codes (Saldaña, 2021). After the employment of axial coding methods, four sub-themes emerged, which included (a) employment and methods of accommodations for students with special needs and (b) perceptions regarding teaching with students with special needs, (c) prior training and/or education concerning teaching with students with special needs, and (d) prior professional development focused on teaching students with special needs. Sub-themes were then interpreted through Borich's (1980) lens, which helped to bring thematic structure to the themes (Borich, 1980; see Figure 2).

Figure 2

Emergent Themes and Sub-Themes for this Investigation



Building Quality into the Study

We established rigor and trustworthiness by following Tracy’s (2010) eight criteria for upholding qualitative quality. First, we established a worthy topic by investigating a phenomenon with relevance and significance because it focused solely on female SBAE teachers’ professional development needs, a study that had not previously been conducted. Additionally, the investigation achieved rich rigor and meaningful coherence by collecting and analyzing data that aligned with the study’s intended purpose (Tracy, 2010). Meanwhile, we ensured resonance by emphasizing the transferability of the study’s findings and describing the methods in full to convey the investigation’s rigor (Tracy, 2010). Bracketing, peer-debriefing, and thick descriptions were also used to uphold sincerity and credibility (Tracy, 2010). Lastly, we employed ethical practices by complying with IRB regulations to ensure the protection of participants’ confidentiality by the use of pseudonyms and by paying attention to the cultural ethics of the target population’s state.

Reflexivity

To further uphold the trustworthiness of this study, it was critical to identify our biases to ensure transparency. Therefore, a brief background of the researchers was warranted to reveal prior experiences and preconceptions that may have influenced this investigation. The lead researcher was a graduate student in agricultural education at Louisiana State University. Through her undergraduate student teaching experience, she taught at a rural school in central Mississippi in a single-teacher program. During her time student teaching, she worked with several students from diverse ethnic, socioeconomic, and cultural backgrounds. In addition, she frequently provided student accommodations, and inclusion strategies, documented student progression, and behavioral responses. The other research team members previously taught secondary agriculture education in three different states and now serve as faculty in agricultural education at Louisiana University and have conducted previous research on diversity and in inclusion

agricultural education. Each team member also implemented student accommodations, and inclusion strategies when teaching students with special needs.

Findings

Through our analysis of the data, two themes emerged: (1) perceived importance and (2) perceived ability. Each theme also had two sub-themes that helped tell the story of female SBAE teachers' experience and professional development needs when teaching students with special needs. A narrative of the study's findings follows.

Theme #1: Perceived Importance

Participants identified their perceived relevance when teaching students with special needs through two sub-themes (1) perceptions and (2) accommodation supports.

Sub-Theme #1: Employment and Approaches to Accommodations

Overall, participants described positive perceptions and benefits of including students with special needs in SBAE classrooms. For example, Hannah discussed the desire to ensure students with special needs felt include, stating: "I never want them to feel different than anyone else... to feel like they're not achieving at the same levels as anyone else... If I have to do those things [implement accommodations or modifications], I do that behind the scenes." Margret shared how the nature of SBAE programs was incredibly beneficial for students with special needs, stating: "Our [agricultural education] classrooms naturally lend themselves to be the least restrictive environment." Because the participants perceived that SBAE classrooms were more welcoming than other courses, the participants shared the approaches they have used for students to ensure students with special needs felt supported. On this point, Susan discussed the specific strategies she implemented. She explained: "I have gone through and reformatted many notes with more pictures... more visual... to ensure that all of my students with special needs can have the resources they need to be successful."

Meanwhile, Emma shared how she completed "check-ins" with students with special needs as they completed an assignment to provide "additional accommodations or modifications if needed." Participants also shared additional practices they used to build a positive and supportive environment for their students. For instance, Rachel explained: "because I regularly provide accommodations to students with disabilities, I decided to just give them to the rest of the students in this class, just to make my life a little bit easier, and it does not single out those students with special needs." Participants also described a willingness to modify their classroom and laborites to develop and maintain a space that was easy to navigate for students, especially students with orthopedic impairments. Haley shared her experience of teaching a student in a wheelchair and how, as a result of that experience, she began to emphasize creating a supportive environment in her classroom more purposefully. She shared: "I always try to keep in mind that [students with physical disabilities] may need to get around... and thought that other students probably need this consideration as well." Further, when providing accommodations for a student with orthopedic impairment, Haley expressed the difficulties she experienced in getting a desk that would accommodate a student in a wheelchair: "I had to fight to get it... since that student left, I have refused to take it out."

For many of the female teachers in this study, accommodating students with special needs was not a practice that came naturally or from previous training. Instead, it had to be consciously incorporated into their daily routines. Rachel shared a goal she had set to become more aware and intentional when providing accommodations and modifications for students. As a new teacher, she identified that she had not spent enough time working to implement students' accommodations or modifications in her first year. Therefore,

she explained: "I have made it a goal of mine... to try to become more aware and modify my lessons to include students with special needs, but like, my whole first year teaching, I did not do that."

When accommodating students, participants described the unique environments of agricultural mechanics and greenhouse laboratories as an added challenge. As Hannah explained: "those accommodations do not always fit our setting... you have to be flexible." Haley echoed the sentiment, explaining her experiences when teaching students in the greenhouse: "Often times we're [the SBAE instructors] working off the cuff, I really wish it wouldn't be that way and that I could provide the resources my students need." Emma also identified this as a difficulty, sharing that at her school, she perceived the agricultural mechanics laboratory as "hard to maneuver" in areas such as welding booths where a student would work with hot metal. Emma also identified her concerns with the safety of the agricultural mechanics laboratory setting for some students with special needs but additionally expressed her concerns that students might not be given many opportunities to continue coursework after an initial introduction course. She shared: "even though you [a student with special needs] might be able to take an Ag 1 class, after that, there's pretty much not good options for you." Hannah agreed that shop safety was a concern, and she shared her experiences with modifying the agricultural mechanics laboratory environment for a student with a mobility impairment. She described a student who was experiencing difficulties navigating the shop and being able to lift or transport materials to his workstation. Because of this, she gathered materials for him prior to class and once his materials were in front of him, he was able to successfully participate in class and perform the task. Hannah described the experience: "he struggled a lot in the shop with moving materials and wood and once we got everything cut and laid out and put in front of him, he was fine."

Participants also shared concerns related to the shop setting where students are often tasked with completing projects that require multiple steps and complicated instruction. On this point, Margret shared: "in the shop... they [students with special needs] can only take one-step directions and the shop is one of those places that you [the instructor] give multi-step directions... I had to find some alternatives to that." Susan shared methods she used to accommodate students in which she used proximity in the laboratory setting to keep students with special needs closer to her, allowing her to be able to implement accommodations and adjust as needed while also being able to monitor the safety of the student. She also described a partnering system she used in the agricultural mechanics laboratory to support students with special needs:

I have another student help them [the student with special needs] versus me... I try to have the young boys help those kids [students with special needs] and they're [both general education students and students with special needs] generally very receptive to that help, the other kids [general education students] are more willing to help, really more than I ever expected. (Susan)

Participants also shared their experiences regarding enlisting external supports to successfully implement a student's accommodations or modifications. Case in point, multiple participants articulated their challenge to having a paraprofessional who assisted a student with special needs in their classroom. In particular, Emma described her experiences with paraprofessionals as often being a distraction to the students rather than a benefit. She shared: "[the paraprofessional] is well known for coming up in the middle of my lessons to show me something on his phone that relates and I'm like, the lesson is not for you." Participants also shared the importance of support from the special education department and teachers at their schools when accommodating students with special needs, especially in regard to scheduling students into their classes and implementing students' accommodations. All participants described having a positive relationship with the special education department at their schools. On this point, Susan described a positive working relationship with the special education teachers and how she often communicated with them to get their opinion on a student's ability to operate machinery so that she can better provide the appropriate accommodations. As she explained: "they're [the special education teachers] very good at helping me decide on whether those kids [students with special needs] are OK to do that or if it might be a safety issue."

Haley agreed that relationships were key and shared how much she learned from a student's paraprofessional and the special education department at her school during her time teaching a student in a wheelchair: "I learned a lot from his [paraprofessional], and the SPED teacher was excellent at keeping me abreast."

Sub-Theme #2: Perceptions

The second sub-theme focused on the participants' personal perceptions regarding teaching students with special needs. Participants described how their personal views influenced the inclusion of students with special needs in the FFA organization, and how personal relationships with family or friends with special needs influenced their overall perceptions. They maintained that agricultural education should consist of more than just classroom interactions for students with special needs. As such, participants discussed the importance of student involvement in FFA, the leadership component of agricultural education's three-circle model. Although all participants shared a positive perception of involving students with special needs in the program, only three of the six participants had a personal experience involving these learners in FFA. Margret shared the unique situation of having a student with autism compete in the State Land Judging Contest. Even though the student did very well in the competition, it was often difficult to navigate portions of the contest as the student became overwhelmed when surrounded by a large group of people. Through her reflection on the experience, she shared: "You [the instructor] just have to kind of need to know what you're working with, so I think that there are times that I just didn't think enough about how to provide those needs."

Emma also shared her experiences teaching one student who was in a wheelchair and another student with Down Syndrome whom both showed livestock. Emma described the experience as positive: "they loved it... they were a part of it." When Emma was asked if she experienced any difficulties in accommodating these students at livestock shows she explained: "His sister showed, so she was out there helping him push his chair along and they had a special set-up for him." Susan shared her experiences with coaching a student with special needs for a contest, however, the student ultimately did not attend. Susan explained: "I was going to put him on a team by himself... my theory is if you [the student with special needs] come to practice and [are] putting forth the effort ... I'm not going to not let them not come."

Of the participants, Margret was the only one to share an experience traveling with a student with special needs on an overnight trip as she took a student with cerebral palsy to the National FFA Convention to receive her American Degree. Before leaving for their trip, Margret submitted accommodations to National FFA to ensure the student was able to sit on the floor with the other degree recipients. However, despite submitting the accommodations in advance, they were not put in place. Margret expressed her frustration that when they arrived at National FFA Convention, "she was not able to sit on the floor with the rest of the degree recipients, and so that was a major issue." Margret continued: "that was the first time I had to make a request for accommodations, so it just makes me that much more aware that I need to make contact more than once...and also continue to follow up." Through this experience, she also shared how she became more aware of accommodations she may need to provide when hosting her own events as an SBAE teacher and how important it was to keep accommodations in mind persistently.

In addition to FFA experiences, participants also identified how personal relationships with family and friends further supported the importance of accommodating students with special needs. Margret shared her experience of realizing her father had dyslexia after she taught students in her classroom who also had the disability. She reflected on her experience as a child when she would work with her father weighing show pigs, she explained: "he wasn't the one reading the scale... he was the one writing it down." It was not until she became a teacher that she realized her father was uncomfortable reading the weight aloud due to his dyslexia. She further reflected: "I thought I was just learning how to do the things he already knew, but it was actually because my dad has dyslexia, and I did not know."

Hannah shared an attachment to students with Down Syndrome due to her personal relationship with her best friend's daughter who shares the same disability, as well as interactions with four teachers from her previous school who had children with Down Syndrome. Hannah shared her confidence when teaching students with Down Syndrome was ultimately due to her prior experiences, however, other disabilities remained difficult to accommodate, she explained:

My personal experience with that [students with Down Syndrome] is a little different, I personally, feel that the campus that I'm at right now, students with autism is the one that gets me, 'cause I don't necessarily understand all the things behind it.

Haley shared how her time spent with a cousin, who was deaf, influenced her teaching career: "I have a first cousin who is deaf, and I made it a point as a child to learn Sign Language because it just breaks my heart that he would sit by himself at our family gatherings." She continued: "I need to go back and do a refresher course on my Sign Language... I worry that I'll encounter a student who needs it... I'm losing the skill because I'm not using it."

Theme #2: Perceived Ability

In the second theme, the participants expressed their perceived ability through two sub-themes: (1) participants' prior education and (2) participants' prior professional development focused on teaching exceptional students.

Ability Sub-Theme 1: Education

Three participants of the investigation completed their certification through traditional licensure coursework at the university level, of these participants, each completed one, three-credit hour course dedicated to teaching students with special needs. Emma and Margret both discussed that while they did take the course, they did not take away much from the experience. For example, Margret shared: "Really, I didn't receive much [education related to teaching exceptional students] other than one hour of undergrad [college courses]." This was echoed by Emma who explained: "All I can really remember is when I was doing my teacher preparation, we had to take one class on special populations." Rachel, however, constructed more meaning from her experiences as a result of tutoring students with special needs as part of completing the required course. She described how the tutoring experience allowed her to develop a deeper understanding of differences among students since she did not have any prior experience with students with special needs before the course. Rachel explained: "I never really struggled, like, I didn't have a learning disability or anything else, so it was eye-opening in the sense it made me realize, oh, everyone's not like me."

Sub-Theme #2: Professional Development

The last sub-theme of the investigation described participants' perceived abilities that were supported by their experiences through professional development. As participants shared their professional development experiences, they also indicated additional areas needed to improve their ability to teach students with special needs. None of the participants attended prior professional development focused on special education for agricultural education. However, participants did indicate participation in annual training provided through their local school district. As participants shared their experiences with school district professional development events, many described the events as being targeted toward general education teachers. For example, Rachel explained: "[the professional development] my local school district puts on... they're never really gauged for ag teachers, it's more like traditional math and English." Hannah shared her frustration with her school district's professional development opportunities since it was: "typically a PowerPoint that somebody gets up there and reads, and it's the same PowerPoint that

they've been using since that person took the position, they just updated the numbers." In addition to perceiving the training to be targeted primarily to general education teachers, participants also described their experiences in school district trainings as more of a blanket session to ensure teachers were upholding the legal requirements when teaching with students with special needs without providing in-depth information. Additionally, participants did not feel as though the information was presented effectively. Emma stated they just kept reminding her to "don't forget to fill out this paperwork."

Despite dissatisfaction with professional development events they had participated in previously, all participants indicated they would attend professional development events focused on students with special needs if available. When asked if she would attend training related to the inclusion of special education students, Susan said: "definitely, especially with the number [of students with special needs] that I see in this area, definitely yeah, I probably honestly need it." Participants also discussed that they would be more likely to attend the events if offered through the Louisiana Agriscience Teacher Association. For example, Emma explained: "If it [professional development focused on students with special needs] was at the ag teacher conference, I would go to one." This sentiment was echoed by Susan: "I find I get more out of the conversation out of our [SBAE teachers] professional development from LATA things." Two participants expressed the desire to receive training through LATA as it was normally held during the summer months, therefore they would not have to schedule additional time off. Haley explained: "I just feel if it's during the year, it's so much more difficult because it feels like you're taking away from the time you would have had with a child [in the classroom]." Emma agreed with this sentiment: "I don't know that they [school officials] would let me take time off of school to go."

When discussing their perceived professional development needs, participants expressed that such should be presented based on disability types, along with skills they could directly apply to their classroom and teaching practices. Margret shared: "I think there needs to be maybe a specialized professional development, you know... how to categorize them [students with special needs] and then how to approach them. Following the need for specific professional development sessions, participants also shared the disability types they felt the least prepared to teach. In particular, three participants identified a desire for training on students with autism to better understand difficulties regarding this disability type. Participants shared that many students with autism may not be immediately identifiable until exposed to certain situations. As Haley reflected: "I mean I have one young man I didn't even realize he had autistic behavior till he blurted something inappropriate to another student." Participants also identified challenges when teaching students with emotional disorders or behavioral impairments, blindness or visual impairments, and deafness or hearing impairments. Hannah shared her difficulties with not feeling prepared enough to know what "triggers" may be associated with students. Emma also agreed that: "behavior disorders can be a little bit unnerving." In contrast, Rachael revealed she did not feel the need for professional development focused on disorders such as ADHD, but instead, had difficulties with: "students who are in a wheelchair or have bad vision... like a vision impairment or hearing impairment." Rachel also shared her experience with a student who had a visual impairment, but being unsure how to assist the student, she explained: "I had a student earlier this year that she [the student with blindness or visual impairment] would have to hold her textbook to her face to be able to see it... I was very confused."

Conclusions, Discussion, Implications, and Recommendations

The purpose of this investigation was to describe the experiences of female SBAE instructors in Louisiana when teaching students with special needs while also describing their professional development needs. As a result, we concluded that female SBAE instructors in Louisiana experienced a discrepancy between their perceived importance and ability when teaching students with special needs – a finding that has not been previously explored in the literature.

Of the four participants that reported taking a course focused on exceptional students, all reported the course was a requirement of their degree program. This investigation also found the women believed most of their professional development experiences in special education were inadequate because they were fast-paced, repetitive, and not specific to SBAE. This conclusion was consistent with prior research, which has indicated preservice courses focused on students with special needs have often not been extensive enough to help SBAE teachers feel prepared to teach students with special needs in their programs (Aschenbrenner et al., 2010; Faulkner & Baggett, 2010; Kessell, 2009; Ruhland & Bremer, 2002; Ramage et al., 2021; Roberts et al., 2020; Stair et al., 2019). It was further concluded that even if participants received preservice education on teaching students with special needs, the limited extent of the courses failed to provide adequate time for interpretation and to develop positive perceptions when accommodating students with special needs. In addition, because of the time required to influence teachers' perceptions, preservice education serves as a vital time when strategies can be developed that can help them gain the self-efficacy and skills needed to be successful once they enter the field (Savolainen et al., 2020).

Based on these results, professional development should be offered based on specific disabilities types. Specifically, participants indicated a greater need to accommodate students with physical disabilities in laboratory settings (Minus et al., 2021). Because a gap may exist in content knowledge about specific disability categories and strategies when teaching students with special needs, is it possible that further marginalization of students with special needs may be occurring in classrooms? For example, if women SBAE teachers perceive students to be of low ability or are unaware of how to effectively teach certain students, they may unintentionally reduce experiences and opportunities for those learners (Aschenbrenner et al., 2010; Faulkner & Baggett, 2010; Jobling & Moni, 2004; Johnson et al., 2012; Kessell, 2009; Ruhland & Bremer, 2002; Stair et al., 2019).

Involvement in FFA has been shown to have a positive impact on students' self-identity, employability after graduation, and soft skill development (Bowling & Ball, 2020; Hansen et al., 2003; Lundry et al., 2015; NAAE, 2021). However, how is SBAE serving all, if students with special needs have not been routinely encouraged to participate in FFA events? For example, one participant in this investigation shared her experience traveling with a student to the National FFA Convention. Upon arrival, the student's accommodations were not met for an award ceremony and they were unable to participate. To serve all students, SBAE must increase the self-efficacy of female instructors to involve this population in the total program while also ensuring that, once included, they can participate at the same level as their peers. We also recommended that the results of this investigation be shared with state SBAE staff, university faculty, and the Louisiana Agriculture Teacher Association. These groups should then work collaboratively to use the findings of this investigation to provide professional development events for women SBAE instructors on special education. Professional development events should not be general special education training. Instead, they should focus on specific disability types and/or specific skill competencies. Finally, professional development should present contemporary approaches to accommodating students with special needs that are directly applicable to women SBAE instructors in their classrooms as well as during SAE and FFA advisement (Johnson et al., 2012).

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