

# Attitudes and Professional Development Needs of School-Based Agricultural Education Teachers Related to Inclusion, Diversity, and Equity

## Abstract

*This study aimed to describe school-based agricultural education (SBAE) teachers' attitudes regarding inclusion, diversity, and equity (IDE) and prioritize the need for IDE-related professional development. A series of survey questions were used to describe the sample of SBAE teachers and their attitudes toward IDE and inclusive teaching practices. Most participants agreed that their programs should create an inclusive environment where all students can benefit from their program, have equal opportunities, and demographically mirror their school's student population. However, the profession remains split on whether there are problems with IDE and whether changes are needed. This response is likely the result of today's polarized culture. The Borich Needs Assessment Model was used to determine the perceived level of importance and ability of SBAE teachers regarding 11 professional development statements related to IDE. All professional development needs were assessed and ranked using mean weighted discrepancy scores (MWDS). The top three IDE-related professional development need areas among SBAE teachers were (a) tapping into students' lived experiences (cultural capital) when teaching, (b) identifying curriculum resources to enhance inclusivity, and (c) advocating for minority students.*

**Keywords:** attitudes; diversity; equity; inclusion; professional development; SBAE teachers

## Introduction and Need for the Study

Diversity refers to the range of identities that exist in a group of people. In an educational setting, diversity represents a broad range of ideas and initiatives to create learning environments that are safe, inclusive, and equitable for as many identities as possible. Recognizing, fostering, and developing sensitivity toward the needs of individuals is the primary focus of educational diversity (Guilford, 2020).

According to the National Association of Agricultural Educators (NAAE) Strategic Plan, three strategies were identified in 2013 to help address concerns facing the profession in terms of inclusion, diversity, and equity (IDE) (NAAE, 2013). First, NAAE identified a "need to increase teacher recruitment efforts to meet the demand for new and expanding programs" (p. 2). Specifically, an action plan was formulated to "increase recruitment efforts to reach traditional, non-traditional, and diverse audiences to enter the profession" (p. 2). Their second strategy was to "collaborate with agricultural education organizations," specifically with Minorities in Agriculture, Natural Resources, and Related Sciences (MANNRS), to foster "growing professional relationships" (p. 5). Finally, their third strategy was to "increase the diversity of NAAE membership," specifically by "working with state affiliates to communicate the importance of diversity" (p. 5).

Although efforts have identified a need for change within the profession, diversity in school-based agricultural education (SBAE) remains slow to change. According to data collected from the 2020 American Association for Agricultural Education (AAAE) National Agricultural Education Supply and Demand study, the demographic information of SBAE teachers in the United States was

80.5% Caucasian, 3.3% Hispanic/Latino(a), 1.3% African American, and the remaining 14.9% representing Asian, multiracial, other, and those who chose not to identify or disclose their race (Foster et al., 2020). Additionally, the data showed that African American SBAE teachers have rapidly declined from 541 in 2017 to 176 in 2020 (Foster et al., 2020). Comparing these data to a 2019 report, the National FFA Organization (2019) reported that FFA membership was 64.3% White, 15.2% Hispanic, 5.3% African American, and 15.2% Other or Undisclosed. These data suggest that SBAE program enrollment and FFA membership may mirror SBAE teachers' demographics more closely than school or student demographics. For minority students, not having representation in SBAE is one of the greatest hindrances (Talbert & Larke, 1995). If minority students cannot identify with the program, they will be less inclined to participate (Bowen, 1987). Knowing this, greater efforts must be made to create a profession and future agricultural workforce that represents the country's changing demographics and its students (Saxena, 2014).

As diversity in the profession remains slow to change, it is important to understand how student enrollment in SBAE programs has been affected. A variety of factors must be considered when determining why a student chooses or does not choose to participate in the SBAE program. Minority students are less likely to pursue SBAE programs because of the preconceived notion that such programs are directly targeted toward individuals with previous background experience in agriculture (Fraze et al., 2011). Moreover, "specific student characteristics and external influences [can] affect [student] choices" (Herren et al., 2011, p. 54). When individuals from similar backgrounds form a community of shared interests and characteristics, they can cause resistance from outsiders (Little, 2014). This is important to note because several factors can affect whether a student chooses to participate in the SBAE program. These factors must be considered for a change to occur (Alford-Davidson, 2009; McGraw et al., 2012; Omede, 2015; Rocca & Washburn, 2007; Shrestha et al., 2011; Wildman & Torres, 2001).

In addition to student characteristics and external influences, if SBAE programs do not foster a climate of inclusion, evidence suggests that minority students will feel less inclined to participate. Aside from the long-term ramifications of exclusion, adverse effects will be felt throughout the SBAE profession and workforce for years to come. "An average of nearly 60,000 high-skilled agriculture and related job openings are expected annually in the United States over the next five years, with only about 35,000 graduates in food, agriculture, renewable resources, or the environment graduating each year to fill them" (Daniels, 2015, p. 1-2). To offset this global demand, we need talented and skilled workers in agriculture. According to Goecker et al. (2015), shortages of skilled workers can be addressed through a greater diversity of individuals entering the workforce.

Researchers have stated, "[SBAE] teachers' attitudes about the perceptions of diversity and inclusion in their programs are variables that may have a strong influence on the number of students that enroll in agricultural education" (LaVergne et al., 2012, p. 84). Therefore, for SBAE program recruitment strategies to be effective, it is important to understand the attitudes and professional development needs of SBAE teachers regarding IDE.

### **Review of Literature**

Participation in SBAE remains at an all-time high. With a continued increase in participation, concern has continued to grow regarding how SBAE teachers can create a learning environment that is welcoming to all students. Currently, SBAE does not represent the demographic profile of the population. In 2019, FFA membership was 64.3% White, 15.2% Hispanic, 5.3% African American, and 15.2% Other or Undisclosed (National FFA, 2019). In contrast, public school enrollment numbers

show greater diversity. The National Center for Education Statistics (2020) reported public school enrollment as 46.2% White, 27.6% Hispanic, 14.9% African American, and 11.3% as Other or Undisclosed. These demographics illuminate the disparities between public school enrollment and minority enrollment in SBAE and FFA. According to McKim et al. (2018), "a higher proportion of SBAE programs [are] in rural, largely white communities," and "when Black and Asian students have the option to enroll in SBAE, they do so at a lower rate" (p. 80). Prior research has expounded on the need to make agricultural education a more inclusive environment so that SBAE programs can recruit and retain diverse students (Alston et al., 2011). To ensure that SBAE programs continue to produce college- and career-ready students for the 21<sup>st</sup> century, it is paramount for SBAE teachers to create a culture that promotes IDE.

When looking at the scope of agricultural education, the greatest impact is at the local level (Martin & Kitchel, 2020). Therefore, to foster inclusion within SBAE programs, SBAE teachers' influence and perspectives are crucial in establishing an inclusive culture. As Whent (1994) states, "agricultural educators need to make greater strides toward acknowledging their unconscious biases toward people of diverse populations" (p. 11). Furthermore, Bowen (1995) states, "...gender and ethnic diversity must be pursued more aggressively if agricultural educators wish to be major players in America's educational enterprise [in the coming years]" (p. 8). Unfortunately, these perspectives ultimately recruit like-minded students and discourage the participation of diverse students. For example, a case study conducted in ten different schools revealed that students perceived FFA members and agricultural education students as "hicks, hillbillies, and farmers" (Phelps et al., 2012, p. 81). These perceptions can create challenges for recruiting diverse students. Students who cannot identify with an organization or a group of people are less inclined to participate (Larson, 1994).

In recent years, limited research has been conducted on IDE in SBAE. Research has found that SBAE teachers face many barriers associated with recruiting diverse students because of prejudices and stereotypes, including the general perceptions of agriculture (Warren & Alston, 2007). The portrayal of the agricultural industry is one of the largest factors influencing whether a student decides to enroll in an SBAE program (Fizer, 2013). Previously, minorities in high schools tended not to enroll in agriculture courses due to their historical significance. For minorities, food consumption was one of the few connections made to the agricultural industry (Wiley et al., 1997). Due to their complicated and complex relationship with the history of agriculture, many minorities sought other career pathways, mainly because of the stigma attached to agriculture.

Negative images of agriculture were seen as barriers to minorities pursuing enrollment in SBAE programs (Scanlon et al., 1989). Images of agricultural education tend to project a profession primarily based on vocational skill-building, FFA, and teaching production agriculture methods dominated by white males. Consequently, many minorities equate agriculture to food production rather than biotechnology, business, or science, resulting in a negative perception of the industry (Orthel et al., 1989). As the evidence suggests, minorities and many others have this perception of the agricultural industry, SBAE programs and teachers must understand how students perceive the local SBAE program, learn to deconstruct any biases they may have, and incorporate practices that promote IDE in the classroom. As a driving force, SBAE teachers set the tone for the local program, which includes recruiting and retaining students, establishing rapport with students, encouraging peer collaboration, and creating a positive classroom culture that fosters learning and acceptance (Austin et al., 2021).

Due to biases and a lack of education on integrating inclusion practices into the classroom, the need for increased awareness and specialized training around IDE in the SBAE classroom is great. It was noted that "[SBAE] teachers need training in multicultural education because America is a

culturally pluralistic society, and cultural and ethnic diversity in the United States is a fact of life" (Sheppard, 1983, as cited in Warren & Alston, 2007, p. 67). Moreover, SBAE teachers reported the likelihood of integrating a series of practices into their classrooms. Some of the practices SBAE teachers rated as "least likely" to incorporate into the classroom consisted of "recruiting ethnic minorities to participate in the FFA chapter," "discuss[ing] the role ethnic minorities have played in the history of agriculture," "discuss[ing] ethnic and cultural diversity and public policies related to agriculture," and "recruit[ing] ethnic minorities to enroll in agriculture classes" (Luft, 1996, p. 70). If SBAE teachers do not create a welcoming space for diverse students, actively recruit diverse students to their programs, or implement practices to show the importance of diversity, inclusion, and equity in their programs and in agriculture, then SBAE teachers are driving a bigger wedge into the existing issue of IDE in SBAE programs.

Previous research has continually pointed to how marginalized and underrepresented students experience SBAE compared to their peers and the critical need to advance equity and inclusion (Murray et al., 2020). SBAE teachers can expect minority and special-needs students to represent at least a portion of their enrolled student population. Since these underrepresented students often represent a sizable percentage of the population, SBAE teachers can no longer isolate or overlook the diversity in their classrooms. "For [SBAE] teachers to recruit and retain [minority] students and students with [special needs], the trials, concerns, and opportunities related to these groups must be assessed" (LaVergne et al., 2012, p. 84).

There is limited research on SBAE teachers' attitudes toward inclusive education, although research exists on SBAE teachers' attitudes toward including under-represented or minority students. When asked about their abilities and attitudes toward the inclusion of students with disabilities in the SBAE classroom, nearly 90% of SBAE teachers agreed that they understood what inclusion was, yet only 61% felt that students with disabilities belonged in the classroom (Giffin et al., 2010). While SBAE teachers, in theory, believe in inclusive practices, many underrepresented students find it challenging to be accepted and feel welcomed to the SBAE program by their SBAE teacher. This issue was evident when examining SBAE teachers' attitudes toward sexual orientation. Swinehart's (2013) and Austin's (2018) studies identified the real need for inclusive education. Murray et al. (2020) stated that the findings of Swinehart's (2013) and Austin's (2018) studies identified "barriers preventing the full inclusion of LGBTQ students" (p. 303). Beyond that, Murray et al. (2020) found that LGBTQ students in SBAE often encounter "teachers who are uncomfortable working with them and peers that believe in inclusion 'in general' or in theory but are less likely to embrace LGBTQ peers or FFA leaders" (p. 303).

A 2001 study surveyed Michigan SBAE teachers on their attitudes toward diversity. Participants reported varying levels of comfort when working with diverse students and colleagues. More specifically, they found that "65% of [SBAE] teachers said they would not like to work with students with a different sexual orientation, and 57% would not be comfortable talking to someone with a different sexual orientation" (Moore et al., 2001, p. 34). Other factors such as race, religion, and ethnicity reported comparable results. While SBAE teachers' attitudes may have changed over time, no recent research has been published on the topic. Understanding the attitudes of SBAE teachers is essential in determining the training/professional development needs as they relate to IDE.

Learning how to foster an inclusive classroom should be addressed in teacher education programs. Webster (2014) identified strategies for creating a welcoming classroom environment. For example, "leading open conversations about differences, backgrounds, and abilities is crucial in developing student confidence and comfort in the classroom environment" (p. 23). Webster also said

that there is a need for inclusion education for teachers. Providing teachers with resources and staff training can lead to understanding inclusive practices. She concluded by stating, "when teachers learn to become confident about inclusion, they create an environment that respects diversity and naturally includes all students" (p. 24).

It is ideal for SBAE teachers to learn about teaching students from diverse backgrounds before entering the profession. Zeichner (1995) found that teacher education programs prepare students to teach in a multicultural society through an infusion or segregated approach. In an infusion approach, "diversity is integrated throughout the courses and the field experiences of the teacher education program." In contrast, a segregated approach "uses a stand-alone diversity course or field experience, while other courses or parts of the program are left untouched by a diversity emphasis" (Talbert & Edwin, 2008, p. 52). Zeichner (1995) concluded that, although the infusion approach is educationally preferred, the segregated approach is the most common.

Zeichner also stated five curricular and instructional approaches to use in teacher education programs for teaching in a multicultural society: (1) attitude change to help students examine their attitudes, assumptions, and beliefs; (2) countering low expectations for public school students by exposing teacher education students to research and examples of successful teaching; (3) cultural knowledge including history, characteristics, and learning styles of various cultures; (4) field experience to sensitize students to cultural differences and provide them experiences in cultural-diverse settings; and (5) a biography to help the teacher-education students better understand their own culture (Zeichner, 1995).

As IDE continues to be a concern in SBAE programs, Zeichner's (1995) approach should be considered when identifying the training needs of SBAE teachers, including the methods of implementation. Doing so will encourage SBAE teachers to grow from IDE-specialized training and apply learned practices to their programs to create an inclusive environment for all students.

### **Theoretical Framework**

The theoretical frameworks utilized in this study were communities of practice (Wenger, 1998) and Knowles' (1980) framework of Andragogy. Six principles define Andragogy: (a) the learner's need to know, (b) the learner's self-concept, (c) prior experiences of the learner, (d) readiness to learn, (e) orientation to learning, and (f) motivation to learn (Knowles et al., 2015). Based on this theory, adult learners are more apt or motivated to learn when there is value to what they are learning, and they can gain information and grow from the learning activities (Knowles et al., 2015). Furthermore, an individual's willingness to learn is enhanced when the adult learner has a personal stake in the learning process, such as aiding in planning activities.

In addition to having a personal stake in the learning process, an individual's willingness to learn is enhanced when the adult learner can learn from a community of peers or like-minded individuals. Communities of practice are formed by people who are engaged in a collective learning process. For learning to occur, the individual learner must identify with the six principles of Andragogy and connect with a learning community. Domain, community, and practice are the three key characteristics of building a community of practice (Wenger, 1998).

A community of practice is not simply a network of connections between people but is defined by a shared domain of interest. Membership or participation implies a commitment to the domain and distinguishes members from others. In pursuing their interest in the domain, members engage in joint

activities, discussions, professional development, and information sharing. They build relationships that enable them to trust and learn from each other. Through time and sustained interaction, community members become practitioners. They develop a shared repertoire of resources to address recurring problems and create shared practices (Wenger, 1998).

For this study, an SBAE teacher's attitude toward IDE, including resource utilization and professional development needs, is influenced by Andragogy and the community in which they participate. In addition, an SBAE teacher's ability to learn and desire to change is influenced by the six principles of Andragogy and the domain, community, and practice they identify with.

### **Purpose and Objectives**

This study aimed to identify the classroom-based training, resource, and professional development needs related to IDE for SBAE teachers. This research supports the AAAE National Research Agenda Priority 3: Sufficient Scientific and Professional Workforce that addresses the challenges of the 21<sup>st</sup> Century (Roberts et al., 2016). Specifically, this research aims to address Research Priority Question One: "What strategies are effective in recruiting diverse populations into agriculture and natural resources?"; Question Two: "What methods, models, and practices are effective in recruiting agricultural leadership, education, and communication practitioners and supporting their success at all stages of their career?"; and Question Six: "What competencies are needed to effectively educate, communicate, and lead?" (p. 31). The following research objectives guided this study:

1. Describe the sample of SBAE teachers and their perceptions of the SBAE program.
2. Describe the attitudes of SBAE teachers toward IDE and inclusive teaching practices.
3. Describe the professional development needs of SBAE teachers related to IDE.
4. Describe the utilization of IDE training resources among SBAE teachers.

### **Methods and Procedures**

The target population of this quantitative descriptive study was all Delaware and Utah SBAE teachers actively teaching during the 2021-2022 school year ( $N = 335$ ). We obtained the names and contact information of the SBAE teachers using the 2021-2022 Delaware and Utah Agriculture Teacher Directories. As this was an attempted census in two different states, we did not attempt to generalize beyond the population of this study.

We utilized survey methods to collect data from SBAE teachers. We administered the survey instrument and collected data from November to December 2021 using the online survey program Qualtrics. Utilizing principles from Dillman's (2007) Tailored Design Method, we made three points of contact with the participants to elicit responses. The first point of contact was a notification email introducing the study, providing information, and requesting participation in the research study. Next, the following contact points were sent at one-week intervals: thanking those who completed the survey and encouraging those who had yet to participate. In total, 110 usable responses were collected, yielding a response rate of 32.8 %. Data analysis was performed using IBM SPSS Statistics version 28.

The instrument we used consisted of four sections: (1) IDE attitudes of SBAE teachers; (2) professional development needs related to inclusive teaching practices; (3) IDE resources; and (4) demographics. The IDE attitudes section of the instrument was developed by the researchers and consists of seven statements related to IDE and SBAE practices on a five-point Likert-type scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). This section of the instrument also asked participants to select between one of five statements related to their beliefs about the problem with IDE

in the profession and the need for change. Items were listed on a continuum from "I am unaware there are individuals who believe agricultural education has a problem with inclusion, diversity, and equity" to "I believe there is a problem with inclusion, diversity, and equity in agricultural education; therefore, I would support large-scale changes to agricultural education to make it more inclusive, diverse and equitable." The professional development section of the instrument was researcher-developed and used the Borich (1980) Needs Assessment Model to assess the perceived competence and importance of each practice.

SBAE teachers were asked to rate their perceived importance and competence for each of the 11 practices using a five-point Likert-type scale ranging from 1 ("very low") to 5 ("very high"). Topics were derived from research on inclusive teaching practices and those identified by the researchers. The demographic section of the instrument elicited both personal and programmatic information and was developed by the researchers.

The survey instrument was reviewed for content and face validity by a panel of experts consisting of faculty and graduate students familiar with research design, SBAE, and IDE. More specifically, the panel of experts consisted of two professors (one male and one female) who are experts in agricultural education and quantitative research methods. Additionally, both professors, one of which has had prior research experience with IDE, are Caucasian and heterosexual. Two graduate students (one male and one female) were also a part of the panel. Both students are Caucasian and familiar with agricultural education, research methods, and IDE.

We conducted a pilot test with several SBAE teachers before distributing the survey. Thirty teachers were selected to participate in the study, with 15 teachers completing the survey (50%). The teachers represented in the pilot study were from Michigan. Reliability was assessed by examining the internal consistency of two major parts of the instrument: teacher attitudes (objective two) and teacher professional development needs (objective three). Attitudes ( $\alpha = .986$ ), Importance ( $\alpha = .918$ ), and Competence ( $\alpha = .889$ ) yielded reliable Cronbach Alpha values. Furthermore, post hoc values were statistically significant for each of the three measured variables: Attitudes ( $p = .828$ ), Importance ( $p = .921$ ), and Competence ( $p = .918$ ). The research team then proceeded with administering the survey.

## Results

One hundred and ten individuals participated in this study, with 67.3% ( $n = 74$ ) from Utah and 32.7% ( $n = 36$ ) from Delaware. Because Utah had more SBAE programs and teachers, study participation reflected the program populations within each state. Of the respondents, 60.9% were identified as female, and 39.1% were male. As for race and ethnicity, most respondents were White (95.2%) and non-Hispanic (96.6%). Most participants in this study were from suburban programs (62.5%), followed by rural (21.6%) and urban (15.9%). The survey instrument provided specifications from the U.S. Census Bureau regarding what defined rural, suburban, and urban areas. The average age of the respondents was 36 years ( $SD = 11.12$ ), with a range from 22 to 63 years. On average, respondents had 10.55 years of SBAE teaching experience ( $SD = 8.50$ ), with a range of one to 32 years of teaching experience.

When asked to compare the percentage of students within their agricultural program to the demographics of students enrolled in the school, respondents perceived that minority groups were represented at about the same proportion as their school's population for race, gender, religion, and agricultural backgrounds (Table 1). However, most respondents were unsure of the percentage of students' sexual orientation. Regarding race, one-third of the respondents perceived that minority groups were represented more in the school than in their SBAE program. While slightly over half of the respondents indicated that the SBAE program and school demographics were the same regarding their agricultural background, nearly one-third indicated that minorities with an agricultural background were represented more in the SBAE program than in the school.

Table 1

*Perceived Minority Representation in the SBAE Program (n = 87)*

	Race	Gender	Sexual Orientation	Religion	Agriculture Background
	%	%	%	%	%
Minority groups are represented more in my Ag program than in the school	6.9	10.5	4.7	2.3	30.6
Minority groups are represented at about the same proportion as the school population	54.0	76.7	32.9	57.0	50.6
Minority groups are represented more in the school than in my Ag program	33.3	5.8	27.1	2.3	11.8
Unsure	5.7	7.0	35.3	38.4	7.1

The mean and standard deviation values are provided for research objectives two, three, and four. These values were summated into constructs, with the tau-equivalence theory (Cronbach, 1951) used as the underlying theory for summation. Although it is not normally appropriate to report mean and standard deviation values for Likert-type questions, it is applicable in this instance, as they were summated into constructs.

The second research objective was to describe the attitudes of SBAE teachers toward IDE and inclusive teaching practices. First, we sought to determine the participants' attitudes related to SBAE practices. Respondents had very positive attitudes toward IDE specific to SBAE practices, and they overwhelmingly agreed or strongly agreed with each statement on inclusion and diversity in SBAE (Table 2). For each item, we found between 75.6% and 94.0% agreement (strongly agree or agree). For example, the statement with the highest overall agreement ( $M = 4.58$ ,  $SD = 0.89$ ) was "every student at my school, regardless of background, could benefit from my agricultural education program," while the statement with the least agreement ( $M = 4.15$ ,  $SD = 0.99$ ), with 20.7% responding "Neutral" to the statement was, "I want my agriculture program to reflect the demographics of the school."

Table 2

*Attitudes toward IDE and Inclusive Teaching Practices (n = 83)*

	SA %	A %	N %	D %	SD %
Every student at my school, regardless of background, could benefit from my agricultural education program.	72.3	21.7	1.2	1.2	3.6
It is important to give every student in my agricultural education program, a chance to participate fully in FFA.	65.1	27.7	2.4	1.2	3.6
It is important to give every student in my agricultural education program, a chance to participate fully in SAE.	47.6	31.7	17.1	3.7	0
Students with little background in traditional or production agriculture should be given equal opportunities for participation in FFA and SAE activities as others.	72.3	20.5	2.4	4.8	0
SBAE teachers should try to integrate FFA and SAE within the classroom in order to provide more opportunities for all students to participate.	50.6	36.1	6.0	3.6	3.6
Students within my agricultural education program should feel comfortable sharing differing or opposing viewpoints.	69.9	24.1	1.2	1.2	3.6
I want my agriculture program to reflect the demographics of the school.	46.3	29.3	20.7	3.7	0

*Note.* S.A. = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree.

Additionally, the research objective sought to determine the attitudes and use of inclusive teaching practices. All respondents indicated that they frequently or infrequently built rapport with each student, regardless of their background, and actively cared for each student, regardless of their background and interest (Table 3). The inclusive teaching practices most never done by these participants include intentionally building cultural competence among students and teaching curricula, highlighting diverse cultures.

Table 3

*Attitudes and Use of Inclusive Teaching Practices among SBAE Teachers (N = 77)*

Inclusive Teaching Practice Items	1 (%)	2 (%)	3 (%)	4 (%)
Teaching curriculum which highlights diverse cultures	2.6	25.0	57.9	14.5
Teaching topics which highlight different points of view	0	7.8	41.6	50.6
Not making assumptions about student backgrounds	3.9	7.9	22.4	65.8
Building rapport with each individual student, regardless of background	0	0	11.7	88.3
Learning about the diverse cultures of my students	0	10.5	43.3	46.1
Demonstrating positive perspectives of other cultures	1.3	9.2	44.7	44.7
Increasing my own cultural competency	2.6	13.2	46.1	38.2

*Table Continued*

Intentionally building cultural competence among students	5.3	26.3	48.7	19.7
Activating the prior knowledge held by students	5.3	0	31.6	63.2
Connecting material to the lives of my students	0	1.3	20.8	77.9
Actively caring for each individual student, regardless of their background or interest	0	0	10.4	89.6

*Note.* 1 = Never done and not willing to do, 2 = Never done but willing to do, 3 = I have used this in my program infrequently, 4 = I have used this in my program frequently

For the final part of this research objective, we sought to determine the beliefs of SBAE teachers regarding IDE in the SBAE profession. Participants were asked to describe the statement that best described their beliefs. The participants' beliefs indicated a division of two major thoughts. For example, the belief statement most commonly shared by SBAE teachers was, "I believe there is a problem with inclusion, diversity, and equity in agricultural education; therefore, I would support small-scale changes to agricultural education to make it more inclusive, diverse, and equitable," followed closely by "I am aware there are individuals who believe agricultural education has a problem with inclusion, diversity, and equity; however, I do not believe there is a problem with inclusion, diversity, and equity in agricultural education" (Table 4). Conversely, the belief statement least commonly shared by the participants was, "I believe there is a problem with inclusion, diversity, and equity in agricultural education; however, I do not support changing anything about agricultural education to make it more inclusive, diverse, and equitable."

Table 4

*IDE Beliefs of SBAE Teachers (n = 82)*

Belief Statement	<i>f</i>	Response rate (%)
I am unaware there are individuals who believe agricultural education has a problem with inclusion, diversity, and equity.	16	19.5
I am aware there are individuals who believe agricultural education has a problem with inclusion, diversity, and equity; however, I do not believe there is a problem with inclusion, diversity, and equity in agricultural education.	27	32.9
I believe there is a problem with inclusion, diversity, and equity in agricultural education; however, I do not support changing anything about agricultural education to make it more inclusive, diverse, and Equitable	1	1.2
I believe there is a problem with inclusion, diversity, and equity in agricultural education; therefore, I would support small-scale changes to agricultural education to make it more inclusive, diverse, and equitable.	30	36.6
I believe there is a problem with inclusion, diversity, and equity in agricultural education; therefore, I would support large-scale changes to agricultural education to make it more inclusive, diverse, and equitable.	8	9.8

Finally, regarding objective two, participants were asked if they had any additional IDE-related comments or thoughts on IDE-specific professional development. Based on this, we gathered a series of positionality statements. These statements were then thematically coded into three groups: 1) Against the integration of IDE practices and/or IDE professional development; 2) identified stereotypes and a need for the integration of IDE professional development; 3) programs are already diverse and do not see an immediate need for IDE professional development (Table 5).

Table 5

*Apostolate of Teachers regarding IDE Professional Development in SBAE*

Postulate	Example quotes
Against the integration of IDE practices and/or IDE professional development	"...Trying to include diversity as an agenda leads to segregation." "Although it is important to know about differences in students, I do not think it is very important to preach about certain differences like religion, sexual orientation, etc. It's not something that we should bring up in class." "I do not believe there is a problem with inclusion in Ag Education and FFA. Professional development on this would take time from learning valuable information that can help prepare my students for future careers and to become better citizens."
Identified stereotypes and a need for the integration of IDE practices/IDE professional development	"The stigma associated with Ag and FFA can be an immediate barrier to entry for some minority groups...I believe the best way to make inroads with diversity...is to target students, providing them with diversity training." "I think it is extremely important to focus on. FFA is becoming less relevant in my classroom because my students don't match the demographic that is commonly seen in FFA chapters." "I am open to training, but even more open to receiving resources on how to best approach this topic. I would like to see representation in Ag Ed & FFA curriculum/promo materials that makes all students feel welcome and included in our classes and organization."
Feel their programs are already diverse	"My chapter is as diverse as my school and my classes... I've always had diversity in chapters I've led, [but] I see how our national convention looks "very white"."

The third research objective was to describe the professional development needs of SBAE teachers concerning IDE. We calculated the Mean Weighted Discrepancy Scores (MWDS) for each item using the Borich Needs Assessment Model. Items with a larger MWDS indicate a greater need for professional development than those with a smaller MWDS. All items yielded a positive MWDS, indicating the need for training for all professional development items (Table 6). The factors influencing SBAE teachers' perceived need for professional development are interrelated with objective three's findings. These factors comprise the six principles of Andragogy: (a) the learner's need to know, (b) the learner's self-concept, (c) prior experiences of the learner, (d) readiness to learn, (e) orientation to learning, and (f) motivation to learn (Knowles et al., 2015).

Table 6

*Professional Development Needs of SBAE Teachers Related to IDE (n = 67)*

IDE Professional Development Topic	MWDS	Rank
Tapping into students' lived experiences (cultural capital) when teaching	3.76	1
Identifying curriculum resources to enhance inclusivity	3.16	2
Advocating for minority students	3.07	3
Engaging students in difficult conversations about diversity	2.90	4
Engaging students in FFA who differ from the majority	2.87	5
Understanding the multiple dimensions of diversity (e.g., race, SES, gender, disability status, sexual orientation, religion, etc.) within education	2.83	6
Creating lessons that enable students to share their differing points of view in a positive way	2.64	7
Recruiting students from diverse backgrounds into my Ag program	2.56	8
Engaging students in an SAE who differ from the majority	2.44	9
Implementing practices which support an inclusive classroom	2.42	10
Building rapport with students who have different views than me	2.07	11

For the final research objective, we sought to describe the use of IDE training resources among SBAE teachers. When asked about being aware of any resources available for learning about IDE, 68.1% indicated being unsure or unaware of any resources, while 31.9% indicated they were aware of resources. Thirty-eight percent of the respondents indicated that they had accessed resources in the past 24 months to learn more about IDE, 41.4% indicated they had not, and 20% indicated being unsure. The most used resources to learn more about IDE included attending trainings (28.2%), followed by accessing online resources (27.3%). Nearly 21% of respondents indicated they had not used any resources to learn about IDE. Speaking with experts (10.9%), reading books (7.3%), and personal experience or research (1.8%) were other resources that participants utilized to learn more about IDE.

### Conclusions and Recommendations

This study aimed to determine the attitudes and professional development needs of SBAE related to inclusion, diversity, and equity. Our objectives were achieved by collecting data from SBAE teachers in two states. As a result, we have drawn three interrelated themes to frame the findings and conclusions of this study: (1) Two distinct subgroups within the profession, (2) contextualizing IDE in SBAE, and (3) meaningful professional development related to IDE.

#### Two distinct subgroups within the profession

The first theme surrounds the idea that there are two major groups in the profession regarding attitudes toward IDE. This finding is supported by the underlying theory that guided this study. The results coincided with the tenets of Communities of Practice (Wenger, 1998), indicating a shared belief system among the surveyed SBAE teachers. This study showed that most participants were in either one of the two groups regarding their beliefs about IDE in SBAE. One group recognized a problem with IDE and wanted to foster gradual change, while the other did not believe there was a problem. This dichotomy in belief seems to mirror the socio-political atmosphere of the day, a culture divided

into two political ideologies moving further and further apart. Unfortunately, IDE has become a politicized topic when SBAE teachers, regardless of political ideology, want each of their students to be successful. Evidence of this is found in the fact that over 90% of the participants strongly agreed or agreed with statements such as, "every student at my school, regardless of background, could benefit from my agricultural education program," "it is important to give every student in my agricultural education program a chance to fully participate in FFA," "students with little background in traditional or production agriculture should be given equal opportunities for participation in FFA and SAE activities as others," and "students within my agricultural education program should feel comfortable sharing differing or opposing viewpoints." There is a unified voice clamoring for IDE for students from the responses to these SBAE-specific elements of teaching agriculture. However, from a less myopic perspective, participants in this study reported two very distinct beliefs about inclusion, diversity, and equity as it relates to the SBAE teaching profession.

### **Contextualizing IDE in SBAE**

Interrelated to the previous theme is the idea that concepts and terms related to IDE need to be contextualized in the SBAE profession. Our findings clearly show that when SBAE activities are in context, SBAE teachers overwhelmingly agree with IDE and inclusive teaching practices for their students. However, a large subgroup of SBAE teachers indicated that they do not believe there is a problem with IDE in the SBAE profession. This finding is perhaps a direct result of using the words inclusion, diversity, and equity in the survey versus describing inclusion, diversity, and equity in the context of SBAE activities. Because of the ultra-sensitive socio-political climate in which we all live, those who do not embrace the political ideology attached to the official terms related to IDE may not look favorably upon any association with it. Terms associated with IDE have almost become taboo due to today's polarized culture; therefore, IDE should be addressed in ways SBAE teachers can understand and agree with. For example, focusing on how to best allow every student in the school, regardless of their background, to benefit from the SBAE program would resonate well with SBAE teachers instead of professional development related to helping students benefit from inclusive teaching strategies.

The SBAE teachers in this study overwhelmingly agreed that SBAE, including FFA and SAE, is for all students regardless of their background and that all students should feel comfortable with their different perspectives. Perhaps, instead of focusing on common educational perspectives and definitions related to IDE, discussion and professional development should be in the context of "SBAE for All," much like the already implemented SAE for All initiative. IDE discussions, changes, and activities in SBAE might also include recruiting and retaining diverse students in the SBAE program and not just providing programming for those already registered in SBAE classes.

### **Meaningful professional development for all**

While the majority of SBAE teachers indicated the need for slight changes, very few in this study suggested large-scale changes to SBAE to make it more inclusive, diverse, and equitable. Therefore, IDE professional development activities with these SBAE teachers should not be developed and delivered based on extreme viewpoints or sweeping changes. Instead, professional development activities should focus on SBAE as the context for IDE practices.

Interrelated to the idea that there are two distinct subgroups of SBAE teachers, professional development activities related to IDE should be developed with differentiation in mind. As is done in classrooms with diverse types of students, differentiating professional development for SBAE teachers can provide a more meaningful experience. For example, SBAE teachers reluctant to engage in professional development topics related to IDE might find more value in discussing a more comprehensive approach to recruitment and retention to impact more students for the good. In contrast,

other SBAE teachers might look forward to topics specific to IDE and inclusive teaching strategies. The idea of differentiation is supported by Knowles' model (1980) of Andragogy, which suggests that adults are more motivated to learn when there is relevant context and value to their learning.

Furthermore, the Andragogy framework suggests that SBAE teachers are more willing to engage in activities when others in their group (e.g., community of practice) share similar perspectives and ideas (Wenger, 1998). Therefore, providing SBAE teachers with an opportunity to engage in activities to improve IDE in the SBAE profession with like-minded individuals can be beneficial. The question should be asked: How does one provide training on IDE for a diverse group of SBAE teachers in a practical way? Perhaps the universal design of the learning framework could be a beneficial model in designing inclusive options for professional development activities related to IDE and other polarizing topics for SBAE teachers. Further research should be conducted to determine how best to deliver polarizing topics for professional development to SBAE teachers.

Each IDE professional development needs statement yielded a positive MWDS, indicating a need for professional development related to all areas of IDE. Therefore, we recommend that state staff and university faculty integrate IDE-related professional development when appropriate. Training in Delaware and Utah should first focus on tapping into lived experiences when teaching, identifying curriculum resources to enhance inclusivity, and advocating for minority students. Related to providing IDE training for all, state leaders should consider supplying online resources for SBAE teachers related to IDE. Easily accessible resources related to IDE and inclusive teaching practices can encourage greater participation in professional development among SBAE teachers. The findings of this study indicated that over two-thirds of the participants were unsure where to find resources related to IDE. Possible reasons include limited resources, lack of promotion or awareness, and the inability to access these resources easily. Since online resources were a common place SBAE teachers reported finding resources, state leaders should consider developing online materials related to IDE for SBAE teachers within their states.

In recent years, the National Teach Ag Campaign has provided funding to states through the State Teach Ag Results (STAR) program to implement activities to promote agricultural education for all. However, in 2022, funding for activities specific to IDE ceased. Our findings suggest a need for professional development related to IDE, and we recommend that the National Teach Ag Campaign reinstitutes funding to states for professional development activities related to IDE.

While this study's findings and conclusions are not generalizable beyond the two states that participated in this study, we feel that this study has yielded potentially valuable information concerning IDE in the SBAE teaching profession. Therefore, we recommend replicating this study in other states to determine if and how the attitudes and professional development needs of SBAE teachers differ or remain consistent across states and regions. We also recommend further research to discover the relationships between SBAE teachers' political ideology or teaching location and their beliefs related to IDE.

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