

**Using Students' Chosen Gender Pronouns in School-Based Agricultural Education (SBAE): An Exploratory, Longitudinal Study of Preservice Teachers' Perceived Knowledge and Preparedness**

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## **Abstract**

*The growing diversity of American society requires that U.S. teachers be prepared to effectively teach students from a variety of backgrounds. However, many teachers are ill-prepared by teacher preparation programs to instruct and mentor lesbian, gay, bisexual, transgender, and queer (LGBTQ+) youth. Using students' chosen pronouns is a way to show respect for an individual's identity and make gender minority youth feel welcome and included. This study spanned three consecutive courses in a School-Based Agricultural Education (SBAE) teacher preparation program. Its purpose was to explore the attitudes of preservice teachers toward pronouns during their teacher preparation program, emphasizing the importance of creating more inclusive environments for LGBTQ+ students. Findings revealed the participants' views over multiple observations. Although they somewhat agreed on the importance of gender pronoun knowledge, a decline was noted after their student teaching experiences. The findings suggest a need for improved teacher preparation efforts, stressing the role of curriculum and experiences to foster understanding. Recommendations include enhancing teacher preparation programs with content on pronouns and increasing awareness of the benefits of inclusivity that could serve all stakeholders. Further research should explore the long-term impact of teacher preparation on SBAE teachers and the influence of cooperating teachers' attitudes regarding students' chosen pronouns.*

## **Introduction**

Even though educators have the ability to take steps to foster welcoming and affirming environments for all students regardless of their gender identity (Cross & Hillier, 2021), a notable challenge persists as many U.S. teachers graduate from teacher education programs without adequate preparation to guide and mentor LGBTQ+ individuals (Blair & Deckman, 2022; Clark, 2010). As such, Price and Edwards (2022) found that after completing their teacher preparation program, preservice SBAE teachers did not perceive they were sufficiently prepared to support LGBTQ+ students. This may be due in part to these preservice SBAE teachers not undergoing diversity or multicultural courses during their preparation program (LaVergne et al., 2011). As a consequence, this omission contributes to unsupportive classroom environments, which have been linked to adverse truancy rates, grades, and postsecondary aspirations among LGBTQ+ youth (Aragon et al., 2014; Kosciw et al., 2022). Recognizing this, Hall (2021) emphasized the need for schools to develop strategies likely to foment inclusive and welcoming learning spaces for LGBTQ+ students. In addition, research has shown that youth organizations are important in supporting the development of youth, such as the FFA component of SBAE programs (Murray et al., 2023).

Aragon et al. (2014) found that when classrooms actively support students of diverse sexual orientations and gender identities, educational outcome disparities diminish. The intersectionality of gender and sexual orientation is an important facet of academic performance with the gap between gay male students and lesbian female students greater than that of gay males and straight females (Mittleman, 2022). As such, teachers using gender-neutral language and

acknowledging chosen pronouns in educational settings are straightforward ways to create an inclusive atmosphere for transgender and gender minority students (Gay, Lesbian, & Straight Education Network [GLSEN], 2023; Matsuno, 2019). The use of chosen gender pronouns is particularly significant as it represents the initial step in demonstrating respect for an individual's identity and agency, allowing them to share their gender identity and avoiding assumptions based on physical appearance (GLSEN, 2023). However, when asked to think about their futures as teachers, Blair and Deckman (2020) found that many preservice teachers were fearful of or resistant to engage with topics of gender and gender identity in their classrooms.

In the context of career and technical education (CTE), Hall (2021) identified strategies for educators to enhance inclusivity, including responding to anti-LGBTQ+ language, learning LGBTQ+ terminology, incorporating inclusive language, and employing gender pronouns. Teacher preparation, if focused on cultivating professionals through experiential courses to enhance their pedagogical and content knowledge (Franklin & Molina, 2012), requires an intensified emphasis on diversity across all fronts (Mayo, 2014). The American Association for Agricultural Education (AAAE) addressed this need through its *Standards for School-Based Agricultural Education Teacher Preparation Programs*, setting a framework for universities preparing SBAE teachers (Myers et al., 2017). Of note, Standard Four emphasized the preparation of SBAE teachers to embrace and celebrate diversity (Myers et al., 2017), albeit this standard was somewhat less prescriptive compared to others, providing additional rationale supporting the need for this study. Further, AAAE (2023) identified “Ensuring Diversity, Equity, Inclusion, and Belonging” (p. 10) as a *research value* that seeks to expand diversity through agricultural education and related evaluation efforts. This is important as teachers work to keep students involved in their comprehensive SBAE programs. Moreover, Murray et al. (2023) concluded that hostile school climates for LGBTQ+ youth may lead them to seek support and acceptance through out-of-school activities instead of participating in programs such as SBAE.

### **Purpose and Objectives**

This manuscript presents the results of an exploratory and longitudinal study. The overall goal of the study was to assess preservice teachers' knowledge and preparedness regarding the use of students' chosen pronouns in SBAE as they matriculated through the teacher preparation program at Oklahoma State University (OSU). For the purpose of this study, the teacher preparation program included three consecutive, sequential, and required courses of agricultural education (OSU, 2024). As such, we sought to describe the changes in attitudes of preservice teachers regarding chosen gender pronoun usage in SBAE from a baseline observation at the end of their first agricultural education course to the conclusion of their student teaching internship experiences, i.e., the third of three courses. Two research objectives guided this exploratory study: 1. Describe the perceived knowledge of SBAE preservice teachers regarding students' chosen gender pronouns; and 2. Determine the perceived preparedness of SBAE preservice teachers to properly use students' chosen gender pronouns.

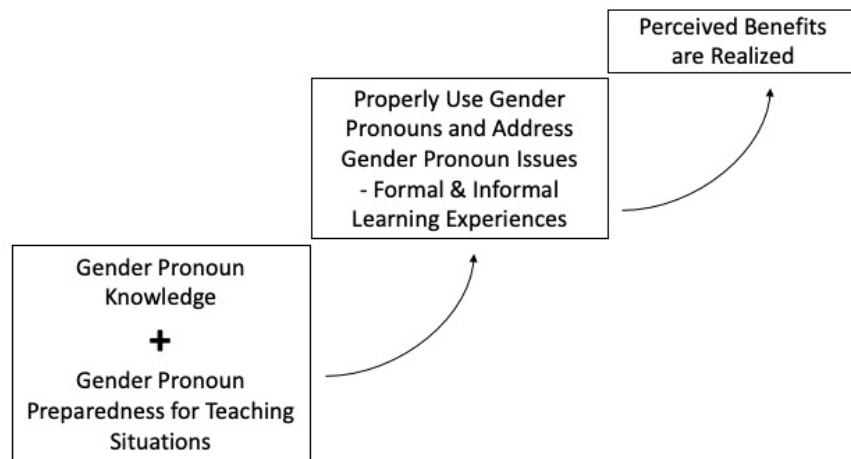
### **Conceptual Framework**

This study was guided by a three-part conceptual framework rooted in Bandura's social cognitive theory (SCT), which asserts that individuals are more inclined to adopt a particular action or object if they perceive associated benefits are accrued by doing so (Bandura, 1986;

Vasta, 1989). Using this theory with the understanding that as a preservice teacher realized the benefits of using gender pronouns, they would be more likely to adopt such behavior, recognizing that doing so would assist them as inservice professionals. Our framework was comprised of (1) gender pronoun knowledge and preparedness, (2) the proper use of gender pronouns, and (3) the realization of perceived benefits (see Figure 1). A major component of SCT includes self-efficacy or a person’s confidence to perform a behavior (Bandura, 1986; Vasta, 1989). A need, therefore, exists for teacher preparation programs to emphasize the advantages, i.e., realized benefits, of using students’ chosen pronouns and establishing inclusive learning environments to build teachers’ self-efficacy regarding related behaviors. In addition, other than their formal coursework, preservice teachers may also participate in campus and community events addressing LGBTQ+ inclusivity, potentially contributing to their understanding of gender pronouns and readiness for real-world scenarios during student teaching or as inservice teachers. The precise impact of these learning experiences – formal and informal – on preparing preservice teachers to effectively use gender pronouns remains unclear and warranted investigation. Figure 1 displays the conceptual framework guiding the study.

**Figure 1**

*The Study’s Conceptual Framework*



**Methods**

The Institutional Review Board at OSU approved this study. The overall study included the collection of data at three points during the matriculation of a cohort of preservice SBAE teachers. Data were collected at or near the end of three courses completed sequentially in the preservice teachers’ preparation program. The degree plan designed by OSU for the agricultural education degree outlines the sequential completion of the three courses comprising the context of this study (OSU, 2024).

**Description of the Participants**

A convenience sample (Ary et al., 2014) of intact groups consisting of agricultural education undergraduate students in the SBAE teacher preparation program at OSU provided the study’s data. The participants’ personal characteristics were identified at each observation of this study.

A majority of the 26 participants in the initial observation identified as women (18, 72.00%), and seven (28.00%) as men. The participants ranged from 20 to 24 years of age. Most participants (19, 76.00%) selected their race/ethnicity as White, while four (16.00%) identified as American Indian or Alaska Native, and two (8.00%) selected other. When asked to identify their sexual orientation, nearly all (23, 92.00%) selected straight, one (4.00%) selected gay, and one (4.00%) chose other. Students from four states were represented in this study, with a majority (20, 80.00%) selecting Oklahoma as their home state. Other home states included Louisiana, Illinois, and California with one (4.00%), one (4.00%), and three participants (12.00%), respectively. Participants were also asked to identify the size of the community in which they grew up. Nearly two-thirds (16, 64.00%) reported rural (1 to 2,500), seven (28.00%) selected suburban (2,501 to 49,999), and two (8.00%) chose urban (50,000+).

Slight attrition occurred between the first ( $n = 26$ ) and second observation ( $n = 23$ ), however, the cohort of participants remained very similar. Female-identifying participants were still a majority ( $f = 14$ , 60.87%). A slight increase in age was found with participants ranging from 21 to 25 years. Most ( $f = 17$ , 73.91%) still identified as White while their sexual orientations remained predominantly straight ( $f = 22$ , 95.65%). Oklahoma was again the primary home state ( $f = 14$ , 60.87%). Similar to the initial observation, a majority ( $f = 16$ , 72.73%) of participants had been enrolled in SBAE programs in rural communities.

Twenty-four participants completed the instrument after student teaching. Seven (29.17%) participants in the third observation indicated having had experiences during student teaching that influenced their beliefs about students' chosen pronouns in SBAE. Women ( $f = 17$ , 70.83%) remained a majority of students in the cohort, and the age range was still 21 to 25 years old. Eighteen (75.00%) identified as White, and all participants ( $n = 24$ ) identified as straight in the third observation. A majority ( $f = 16$ , 69.57%) were residents of Oklahoma, and 15 (62.50%) had grown up in rural communities. Most ( $f = 16$ , 66.67%) participants completed their student teaching experiences in rural communities, and 14 (58.33%) desired to begin their teaching careers in similar settings.

## **Instrumentation**

A web-based *Qualtrics* questionnaire was developed by the researchers to collect the study's data. The instrument asked participants to rate six statements describing their knowledge and understanding of gender pronouns and perceptions regarding use of such in SBAE. Each statement was rated using a 7-point, Likert-type scale ranging from 1 = *Strongly disagree* to 7 = *Strongly agree*. In addition, participants provided personal characteristics as reported above at each observation. The questionnaire also included various open-ended questions depending on the observation. For the first observation, it included a question that asked participants to describe their attitudes regarding the use of gender pronouns in SBAE. The questionnaire at Observation two had an additional item that asked participants to provide any experiences they may have undergone that influenced their views of gender pronoun usage in SBAE since the initial observation. The third observation included two additional open-ended questions that asked participants to (a) describe any experiences they may have had during their student teaching internship that possibly influenced their views on the topic and (b) whether they followed the media coverage of anti-LGBTQ+ legislation progression during their student teaching semester. After data collection at each observation, post-hoc analysis revealed

Cronbach's alphas ranged from 0.755 to 0.890 for the six Likert-type items as a single construct, of which all were deemed acceptable (Field, 2013).

### **Data Collection**

For the first observation, 45 preservice teachers enrolled in *AGED 3103: Foundations and Philosophies of Teaching Agricultural Education* during the Fall semester of 2021 were invited to participate through an anonymous link to the instrument via an electronic mail message. More than one-half ( $n = 26$ ) completed the instrument. A QR code linked to the instrument was made available to 29 students enrolled in *AGED 4103: Methods of Teaching Agricultural Education* at the end of the Fall semester of 2022 for the study's second observation. Most preservice teachers ( $n = 23$ ) completed the instrument at the end of that course prior to their student teaching semester. The third observation was also collected through a QR code for the 25 preservice teachers enrolled in *AGED 4200: Student Teaching in Agricultural Education* during the Spring semester of 2023. All but one student ( $n = 24$ ) completed the third instrument during their semester-ending seminar after their return to campus from student teaching. Participation in each observation was voluntary, completion of the questionnaire did not impact the participants' overall grades in their courses, and the instructors were not present during the administration.

### **Data Analysis**

Descriptive statistics (Ary et al., 2014) were used to describe the participants' perceptions. Frequencies ( $f$ ) and percentages (%) were calculated for each response choice of the six Likert-type items. Mean scores ( $M$ ) and standard deviations ( $SD$ ) were also computed for the items at each observation so that the mean differences ( $MD$ ) between the first and third observations could be determined. The open-ended questions were analyzed for content and meaning to expand on the quantitative findings, an approach supported by Creswell and Plano Clark (2011). For interpretation and reporting, the real limits of the Likert-type scale items and overall were 1.00 to 1.49 = *Strongly disagree*, 1.50 to 2.49 = *Disagree*, 2.50 to 3.49 = *Somewhat disagree*, 3.50 to 4.49 = *Neither agree nor disagree*, 4.50 to 5.49 = *Somewhat agree*, 5.50 to 6.49 = *Agree*, and 6.50 to 7.00 = *Strongly agree*.

### **Limitations of this Study**

The first limitation was the use of convenience sampling regarding one cohort of preservice SBAE teachers at one university who all completed their student teaching internship in the same state. As such, the findings of this study should not be generalized to preservice SBAE teachers in preparation programs nationwide. Another limitation of this study was the slight attrition and small participant variation regarding whom provided responses throughout the three observations as the sample size became marginally smaller and its composition deviated slightly over time. Further, the third observation occurred during a time that anti-LGBTQ+ legislation was proposed, amended, and enacted in state legislatures throughout the United States. Much of the progression of the legislation was covered by various media outlets. This coverage could have influenced the participants' perceptions regarding the topic outside of their interactions and experiences during agricultural education, teacher education courses.

## Results

The instrument's first item sought to measure the participants' perceptions of the importance of gender pronoun knowledge and preparedness of SBAE teachers to demonstrate related behaviors (see Table 1). Less than one-half ( $f = 11$ , 42.31%) *agreed* it was important during the first observation and none *strongly disagreed*. In the second observation, 10 (43.48%) *agreed* and no participants *strongly disagreed* or *disagreed* (see Table 1). However, in the third observation, nine (37.50%) *agreed* and three (12.51%) *strongly disagreed*, *disagreed*, or *somewhat disagreed*. The item mean score for each observation (5.27,  $SD = 1.09$ ; 5.48,  $SD = 1.06$ ; 5.13,  $SD = 1.56$ ) was in the range of *somewhat agree* (see Table 1). The second item measured whether participants understood gender pronouns. In Observation 1, four (15.39%) participants *strongly disagreed*, *disagreed*, or *somewhat disagreed* that they understood gender pronouns. In Observation 2, two (8.70%) participants either *strongly disagreed* or *somewhat disagreed*. However, in Observation 3, no participants *strongly disagreed* or *disagreed*. The item mean score for the initial observation (5.12,  $SD = 1.60$ ) was in the range of *somewhat agree*. Further, the item mean score for the second and third observations (5.52,  $SD = 1.35$ ; 5.58,  $SD = 1.22$ ) were in the range of *agree*. The third item sought to describe whether participants felt prepared to address situations regarding students' chosen gender pronouns in SBAE. Ten (38.47%) *strongly disagreed*, *disagreed*, or *somewhat disagreed* in the initial observation. Fewer ( $f = 6$ , 26.10%) *strongly disagreed*, *disagreed*, or *somewhat disagreed* in Observation 2 and five (20.83%) in Observation 3. The item mean scores for this item at the first and second observations (4.38,  $SD = 1.67$ ; 4.22,  $SD = 1.59$ ) were in the *neither agree nor disagree* range, and the item mean score for Observation 3 (4.83,  $SD = 1.62$ ) was in the range of *somewhat agree* (see Table 1).

The fourth item measured participants' perceptions of how well their teacher preparation program had prepared them to understand and use gender pronouns. In the first observation, only one (3.85%) participant *strongly agreed* that their teacher preparation program had adequately prepared them (see Table 1). No participants *strongly agreed* regarding this item in the second and third observations. The item mean scores for each observation (3.81,  $SD = 1.54$ ; 3.61,  $SD = 1.58$ ; 3.71,  $SD = 1.49$ ) were in the range of *neither agree nor disagree*. The fifth item sought to measure if the participants perceived that SBAE teachers should use their students' chosen pronouns. Each observation saw an increase in those who *strongly disagreed*, *disagreed*, or *somewhat disagreed* with this statement. Two (7.70%) either *disagreed* or *somewhat disagreed* in the initial observation. Three (13.04%) *disagreed* in the second observation, and five (20.80%) *strongly disagreed*, *disagreed*, or *somewhat disagreed* in Observation 3. The item mean score for Observation 1 (5.77,  $SD = 1.28$ ) was in the range of *agree*. The second and third observations' item mean scores (5.48,  $SD = 1.56$ ; 4.92,  $SD = 1.87$ ) were in the range of *somewhat agree*. The final item sought to measure if participants perceived that SBAE teachers should inquire about their students' chosen pronouns. Eighteen (69.23%) participants *somewhat agreed*, *agreed*, or *strongly agreed* during the initial observation. In the second observation, 16 (69.57%) *somewhat agreed*, *agreed*, or *strongly agreed*, and nine (37.49%) *somewhat agreed*, *agreed*, or *strongly agreed* in Observation 3. The item mean scores for the first and second observations (5.00,  $SD = 1.80$ ; 4.83,  $SD = 1.49$ ) were in the range of *somewhat agree*. The item mean score for Observation 3 (4.29,  $SD = 1.62$ ) was in the range of *neither agree nor disagree* (see Table 1).

**Table 1***Participants' Perceptions of the Use of Students' Chosen Pronouns in SBAE over Three Teacher Preparation Observations*

Items	Observation 1 (n = 26)				Observation 2 (n = 23)				Observation 3 (n = 24)			
	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>
Gender pronoun knowledge and preparedness are important as a SBAE teacher.												
Strongly disagree	0	0.00	-	-	0	0.00	-	-	1	4.17	-	-
Disagree	1	3.85	-	-	0	0.00	-	-	1	4.17	-	-
Somewhat disagree	0	0.00	-	-	2	8.70	-	-	1	4.17	-	-
Neither agree nor disagree	5	19.23	-	-	1	4.35	-	-	5	20.83	-	-
Somewhat agree	7	26.92	-	-	7	30.43	-	-	3	12.50	-	-
Agree	11	42.31	-	-	10	43.48	-	-	9	37.50	-	-
Strongly agree	2	7.69	-	-	3	13.04	-	-	4	16.67	-	-
Item Total	26	100.00	5.27	1.09	23	100.00	5.48	1.06	24	100.00	5.13	1.56
I understand the meaning of gender pronouns he/him, she/her, they/them.												
Strongly disagree	1	3.85	-	-	1	4.35	-	-	0	0.00	-	-
Disagree	2	7.69	-	-	0	0.00	-	-	0	0.00	-	-
Somewhat disagree	1	3.85	-	-	1	4.35	-	-	3	12.50	-	-
Neither agree nor disagree	2	7.69	-	-	1	4.35	-	-	1	4.17	-	-
Somewhat agree	8	30.77	-	-	5	21.74	-	-	4	16.67	-	-
Agree	7	26.92	-	-	11	47.83	-	-	11	45.83	-	-
Strongly agree	5	19.23	-	-	4	17.39	-	-	5	20.83	-	-
Item Total	26	100.00	5.12	1.60	23	100.00	5.52	1.35	24	100.00	5.58	1.22



Items	Observation 1 ( <i>n</i> = 26)				Observation 2 ( <i>n</i> = 23)				Observation 3 ( <i>n</i> = 24)			
	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>	<i>f</i>	%	<i>M</i>	<i>SD</i>
I am prepared to address situations regarding students and their gender pronoun preferences in SBAE.												
Strongly disagree	1	3.85	-	-	2	8.70	-	-	1	4.17	-	-
Disagree	3	11.54	-	-	2	8.70	-	-	2	8.33	-	-
Somewhat disagree	6	23.08	-	-	2	8.70	-	-	2	8.33	-	-
Neither agree nor disagree	1	3.85	-	-	6	26.09	-	-	3	12.50	-	-
Somewhat agree	7	26.92	-	-	6	26.09	-	-	6	25.00	-	-
Agree	6	23.08	-	-	4	17.39	-	-	7	29.17	-	-
Strongly agree	2	7.69	-	-	1	4.35	-	-	3	12.50	-	-
Item Total	26	100.00	4.38	1.67	23	100.00	4.22	1.59	24	100.00	4.83	1.62
My teacher preparation program prepared me to understand and use gender pronouns in SBAE.												
Strongly disagree	2	7.69	-	-	3	13.04	-	-	2	8.33	-	-
Disagree	3	11.54	-	-	5	21.74	-	-	4	16.67	-	-
Somewhat disagree	6	23.08	-	-	1	4.35	-	-	4	16.67	-	-
Neither agree nor disagree	8	30.77	-	-	4	17.39	-	-	6	25.00	-	-
Somewhat agree	2	7.69	-	-	9	39.13	-	-	5	20.83	-	-
Agree	4	15.38	-	-	1	4.35	-	-	3	12.50	-	-
Strongly agree	1	3.85	-	-	0	0.00	-	-	0	0.00	-	-
Item Total	26	100.00	3.81	1.54	23	100.00	3.61	1.58	24	100.00	3.71	1.49
SBAE teachers should use gender pronouns aligned with their students' choices.												
Strongly disagree	0	0.00	-	-	0	0.00	-	-	2	8.33	-	-
Disagree	1	3.85	-	-	3	13.04	-	-	2	8.33	-	-

Items	Observation 1 (n = 26)				Observation 2 (n = 23)				Observation 3 (n = 24)			
	f	%	M	SD	f	%	M	SD	f	%	M	SD
Somewhat disagree	1	3.85	-	-	0	0.00	-	-	1	4.17	-	-
Neither agree nor disagree	2	7.69	-	-	1	4.35	-	-	3	12.50	-	-
Somewhat agree	3	11.54	-	-	4	17.39	-	-	4	16.67	-	-
Agree	11	42.31	-	-	9	39.13	-	-	7	29.17	-	-
Strongly agree	8	30.77	-	-	6	26.09	-	-	5	20.83	-	-
Item Total	26	100.00	5.77	1.28	23	100.00	5.48	1.56	24	100.00	4.92	1.87

SBAE teachers should ask students to identify their chosen gender pronouns.

Strongly disagree	1	3.85	-	-	1	4.35	-	-	2	8.33	-	-
Disagree	2	7.69	-	-	2	8.70	-	-	1	4.17	-	-
Somewhat disagree	4	15.38	-	-	0	0.00	-	-	3	12.50	-	-
Neither agree nor disagree	1	3.85	-	-	4	17.39	-	-	9	37.50	-	-
Somewhat agree	6	23.08	-	-	8	34.78	-	-	2	8.33	-	-
Agree	5	19.23	-	-	6	26.09	-	-	5	20.83	-	-
Strongly agree	7	26.92	-	-	2	8.70	-	-	2	8.33	-	-
Item Total	26	100.00	5.00	1.80	23	100.00	4.83	1.49	24	100.00	4.29	1.62

Note. Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neither agree nor disagree, 5 = Somewhat agree, 6 = Agree, and 7 = Strongly agree.

The item mean scores were compared across the study's three observations. To assess the change in participants' perceptions of using students' chosen gender pronouns in SBAE while matriculating through a teacher preparation program, *mean differences (MD)* were calculated by subtracting the item mean scores in Observation 1 from the corresponding scores in Observation 3 (see Table 2), recognizing that the participants who completed the instruments varied slightly over time, but overall were a cohort. In the third observation, participants indicated that they *somewhat agreed* on the importance of SBAE teachers possessing gender pronoun knowledge and preparedness ( $M = 5.13, SD = 1.56$ ), but not as strongly as they had during Observation 1 ( $MD = -0.14$ ) [see Table 2]. In addition, at the third observation, participants affirmed an enhanced understanding of gender pronouns compared to the initial observation ( $M = 5.58, SD = 1.22$ ). Their overall perception shifted ( $MD = 0.46$ ) [see Table 2] from *somewhat agreed* to *agreed*. Moreover, at Observation 3, participants *somewhat agreed* ( $M = 4.83, SD = 1.62$ ) that they felt prepared to address situations related to gender pronouns, which was also an increase over the first observation ( $MD = 0.45$ ) [see Table 2]. Participants *neither agreed nor disagreed* on whether their teacher preparation program adequately equipped them to comprehend and use gender pronouns ( $M = 3.71, SD = 1.49$ ), as evidenced by the third observation's finding (see Table 2), which was slightly lower than the first ( $MD = -0.10$ ) [see Table 2]. Following their student teaching experience, participants *somewhat agreed* ( $M = 4.92, SD = 1.87$ ) that using the chosen pronouns chosen of students was a responsibility of SBAE teachers, despite a decline in agreement, as noted in the second and third Observations. The rating slipped from *agreed* to *somewhat agreed* between Observations 1 and 3 ( $MD = -0.85$ ) [see Table 2]. Further, participants considered it less important for SBAE teachers to inquire about students' chosen gender pronouns after completing their student teaching internships ( $M = 4.29, SD = 1.62$ ). The perception declined ( $MD = -0.71$ ) from *somewhat agreed* to *neither agreed nor disagreed* (see Table 2).

**Table 2**

*Mean Differences in SBAE Preservice Teachers' Perceptions of Gender Pronoun Knowledge and Preparedness at the End of Their First Agricultural Education, Teacher Education Course (Observation 1) and After Completing Student Teaching (Observation 3)*

Items	MD
Gender pronoun knowledge and preparedness are important as a SBAE teacher.	-0.14
I understand the meaning of gender pronouns.	0.46
I am prepared to address situations regarding students and their gender pronoun preferences in SBAE.	0.45
My teacher preparation program is preparing me to understand and use gender pronouns.	-0.10
SBAE teachers should use gender pronouns aligned with their students' choices.	-0.85
SBAE teachers should ask students to identify their chosen gender pronouns.	-0.71

*Note.* Mean differences (MD) were calculated by subtracting the item mean scores in Observation 1 from the corresponding item mean scores in Observation 3.

Following the study's second observation and prior to their student teaching internships, more than three-fourths of participants reported no experiences, formal or informal, influencing their beliefs regarding pronoun preparedness and usage. Five participants reported that they did participate in experiences influencing their beliefs. Two of those highlighted the impact of a lab instructor in their agricultural education courses and the instructor's passion for the topic. In response to an open-ended question about SBAE teachers' use of gender pronouns in the third observation, one participant advocated for comprehensive support and stated: "I think as educators, we should all support our students in all parts of their life." Another participant emphasized adherence to students' assigned genders as designated by parents or guardians. A third student, however, expressed that using students' chosen gender pronouns is a sensitive topic in need of more study and understanding before they would be comfortable implementing associated behaviors as a SBAE teacher.

Although a majority ( $n = 17$ ) of participants did not report having episodes during student teaching that influenced their beliefs about gender pronoun usage, those who did shared impactful experiences. One participant revealed that their cooperating teacher did not use students' chosen pronouns, which they perceived as negatively impacting the engagement of some students and their FFA participation. Another described a situation where the cooperating teacher consistently disregarded a student's pronoun choice. In addition, a participant stated that some students were comfortable sharing their chosen pronouns with them, leading the preservice teacher to pay heightened attention to the use of pronouns while interacting with students. Despite these experiences, participants generally expressed an understanding of the meaning of students' chosen gender pronouns. Acknowledging the extensive media coverage of anti-LGBTQ+ legislation during the participants' student teaching internships, both in Oklahoma and other states, it is recognized that this coverage may have influenced participants' perceptions of the phenomenon. However, only three (12.50%) students confirmed following the media coverage, with one noting that it "helped inform me of what some of my students may be experiencing."

### **Conclusions, Implications, and Recommendations**

Following their student teaching experience, participants *somewhat agreed* on the importance of gender pronoun knowledge and preparedness for SBAE teachers. However, this perception decreased from the second to the third observation and was also lower than the initial observation. Despite perceiving increased readiness to address SBAE situations involving gender pronouns at the third observation compared to the first two, participants only expressed partial agreement regarding their level of preparedness associated with their teacher preparation program. This aligns with the findings of Clark (2010), who found that U.S. teachers were ill-prepared to serve LGBTQ+ youth. Although participants felt less prepared regarding gender pronouns by their teacher preparation program over time, it was found that their understanding of the meaning of gender pronouns did increase. As such, other experiences or interactions may have occurred outside of the formal learning setting that aided them in understanding the need to use gender pronouns and the application of such in SBAE. Another noteworthy trend was the participants' perceptions of their increased preparedness to address situations involving gender pronoun usage after their student teaching experiences. This suggests that the participants may have had relevant experiences during their student teaching internships, but additional research is needed. The regression of some attitudes after student teaching also signals that teacher

educators should pay close attention to the cooperating teachers with whom student teachers are placed, especially regarding their attitudes toward using students' chosen gender pronouns, and the related professional development needs of these mentors. After student teaching, participants also reported a decrease in their agreement that gender pronoun knowledge and preparedness are crucial to the performance of SBAE teachers. This decline in agreement on whether SBAE teachers should use students' chosen pronouns and inquire about their pronoun identification suggests that participants may not have fully grasped the potential benefits associated with these behaviors (Bandura 1986; Vasta, 1989), particularly after their student teaching experiences. These contradictory findings warrant further exploration and study.

Analyzing our data across multiple observations following three interventions (courses) over time revealed several discernible trends. For instance, it is worth exploring how cooperating teachers may influence student teachers' acquiring less positive views regarding this issue. As such, we recommend that teacher educators exercise intentional selectivity when assigning preservice teachers to cooperating teachers and schools. Purposeful placements could align future teachers with educators more supportive of using students' chosen pronouns, thereby fostering the adoption of such practices by their student teachers. Regarding course content and experiences within teacher preparation programs, participants expressed a need for additional training in using gender pronouns. To this point, our findings underscored the importance of dedicating more attention to the goals outlined in *AAAE's Standards for School-Based Agricultural Education Teacher Preparation Programs*, specifically Standard Four which currently does not include any subtopics outlining how preservice teachers should be prepared to create inclusive learning environments and how to celebrate diversity (Myers et al., 2017). Such could emphasize the creation of more inclusive programs that establish positive relationships and thereby increase the likelihood of greater fairness and equity among students, teachers, parents, community members, and other SBAE stakeholders (Price, 2023; Murray et al., 2020).

We recommend that additional investigations be conducted with a larger population of preservice teachers to better understand the knowledge and preparedness of future SBAE teachers regarding gender pronouns. We further recommend that other teacher preparation programs replicate this study to determine their effectiveness in preparing preservice SBAE teachers to address situations regarding gender pronoun usage in SBAE. These studies could also help to identify those cooperating schools and teachers that may hinder or promote the use of gender pronouns in SBAE. We also suggest expanding this study by incorporating an additional observation after the participants have gained inservice teaching experience. This longitudinal extension would aim to evaluate the practical application of their preparation in educational programs and ascertain if any shifts in attitudes and behaviors had manifested due to the accrual of more benefits over time, as suggested by Bandura's SCT (Vasta, 1989). Further, a complementary study should be conducted involving SBAE inservice teachers, both in Oklahoma and in other states. We also recommend that teacher educators at OSU enhance efforts to prepare SBAE teachers to understand and use their future students' chosen pronouns (Cross & Hillier, 2021; Murray et al., 2020). This could involve an instructional unit delivering pertinent content on gender pronouns and strategies to foster more inclusive SBAE programs for gender minority students by promoting a sense of welcomeness and support (Price & Edwards, 2023). Given that experiences influencing participants' views on pronoun usage in SBAE occurred during their teacher preparation coursework, this period offers an opportune time to introduce preservice teachers to

the concept and its impact by providing examples of potential situations and appropriate responses. Such scenarios may also encompass rooming assignments for overnight trips and implementation of the National FFA Organization's (2023) non-gendered official dress standards for students with chosen gender pronouns differing from their assigned sex.

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