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Student Experiences of a Social Justice-based Agricultural and Life Science Education Course at an 1862 Land-Grant University

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Abstract

Agricultural and Life Science (AgLS) research tends to focus on the need for a globally competent workforce prepared to work with diverse populations. However, as AgLS education mirrors society, minoritized populations in AgLS are marginalized and othered. Further, AgLS curricula continues to frame agriculture through a white male lens; consequently, current and prospective students note the lack of educational curricula focused on the experiences of marginalized populations. The purpose of this single-case study was to explore students' learning experiences in a new interdisciplinary social justice-based graduate course focused on historical and contemporary diversity, equity, access, and inclusion (DEAI) issues in AgLS. Findings are organized into four areas: (1) what students enjoyed most in the course, (2) race and representation, (3) students' perceptions of learning experiences and outcomes, and (4) suggestions for improvement. Students reported most positively on the readings, class discussions, and assignments (i.e., op-ed and social justice initiative). Regarding race and representation, students reported taking the course because they were seeking perspectives outside of the whitestream perspectives they had previously been exposed to, and because Black students were seeking agricultural diversity courses taught by Black faculty. Students reported positively regarding their experiences and learning outcomes. Last, students gave suggestions regarding the final research paper, course topics, and the number of weekly readings required. This study illuminated the need for AgLS educators to better address and embed DEAI in agricultural contexts, decenter whiteness in AgLS curricula, and work harder to diversify their faculty ranks.

Keywords: social justice; diversity; inclusion; graduate education; workforce preparation; underrepresented minorities

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Introduction

Most research that focuses on diversity, equity, access, and inclusion (DEAI) in Agriculture and Life Sciences (AgLS) tend to focus on the need to produce a "globally competent" workforce that is adequately prepared to interact with diverse populations and to solve the 21st-century grand challenges by increasing the numbers of marginalized individuals in agriculture (The National Academies, 2009). As a result, Colleges of Agriculture (CoA) have realized the need for multicultural education and training for the next generation of AgLS professionals. However, the less diverse the

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faculty in AgLS, the less likely their courses will discuss DEAI in any form (Lim et al., 2009). In fact, in 2017 only 24% of full-time faculty were faculty of color (e.g., American Indian/Alaska Native, Asian/Pacific Islander, Black/African American, Latinx) (NCES, 2019). Moreover, curricula that does focus on DEAI in CoAs tend to center on multicultural competence which only grazes the surface of the source of oppression for marginalized groups in agriculture. If we truly want to prepare the next generation of AgLS professionals, they must be engaged in DEAI AgLS curricula. As AgLS education mirrors society, students need to be aware of the historical and contemporary issues that are AgLS-related, such as food justice, environmental justice, and labor injustices. This article will highlight a new interdisciplinary agricultural education course designed to enhance graduate students' knowledge on how power structures, lack of access, and identity shape the experiences of marginalized population in AgLS broadly. For clarity regarding nomenclature, when "we," "our," and "us" are used, they are in reference to both authors of this manuscript. When "me," "my," and "I" are used, they are in reference to the first author.

Literature Review

Agricultural and Life Science Education Curricula

Institutions of higher education have made efforts in DEAI programming and curricula but have struggled to realize their goals into tangible results. The tripartite land-grant mission of teaching, research, and engagement seeks to bring the teachings of college to everyday people to solve everyday problems. Land-grants prepare the next generation of future faculty, educators, extension educators, and AgLS professionals who must have the empathy and cultural awareness to interact and work with people from differing backgrounds. However, there has been a noticeable lack of marginalized groups represented in AgLS curricula. Further, AgLS classrooms and curricula have been and continues to remain focused on the white, male middle-class (Martin, et al., 2019). As curricula is relational and situational, students' and instructors' engagement with educational materials is most often in response to their lived experiences (Aoki, 1993). Moreover, according to Joseph (2007), instructors that fail to acknowledge how the university, classroom, curricula, and pedagogy are shaped by societal forces accept the current oppressive culture as the norm.

DEAI curricula in AgLS often approach difference and inequality through a multicultural, diversity, and intercultural/cultural competence lens. Multicultural education started as an effort to assimilate marginalized groups into whitestream[3] culture (Banks, 2008); however, the direction of the effort changed as educators realized students were only aware of white, middle-class, Christian culture and values (Gibson, 2004). While the principles of multicultural education are rooted in democracy, equity, and justice (Banks, 1993), multicultural education efforts in the AgLS classroom have only skimmed the surface. Cultural competency approaches encourage tolerance of differences, understanding of cultural norms, and adjusting to diverse needs (Sisneros et al., 2008). While these approaches are needed and are a good first step in encouraging dialogue about social issues, they are not sufficient to enact change within agricultural education. Cultural competency approaches tend to focus on changing individual perceptions and attitudes, only addressing the symptoms of oppression. These approaches fail to address systemic oppression, such as racism and sexism, and how they negatively shape the experiences of marginalized groups (Potocky, 1997; Pulliam, 2007). Kumashiro (2001) posits that cultural competency approaches to diversity and inclusion curricula do not change or decenter the norm, but instead reinforces the normalization of "the white American, male, middle class, heterosexual identities that are traditionally privileged in society" (p. 5).

[3] Whitestream refers to the notion that American society is structured around the Anglo-European "White" experience (Dennis, 1997). While the term "mainstream" implies white, using whitestream helps to decenter whiteness from the mainstream (Grande, 2000).

Complex societal issues, such as food justice and insecurity, environmental justice, and urban agriculture require an interdisciplinary approach to be sufficiently addressed. Knobloch et al. (2019) outlined several areas of emphasis in interdisciplinary education. Most applicable to this study are: a) blending of natural and social science research methods, b) moving from behaviorism to critical pedagogy via learner-centered teaching and experiential learning, c) using students' funds of knowledge and values and enhancing students' ability to enact change, and d) instruction as facilitation, mentoring, and interactive discussions. An interdisciplinary approach undergirded by social justice-based curricula and pedagogy was key in addressing and questioning injustices, envisioning a just future, and interrogating one's own power and privilege in AgLS.

Social Justice in AgLS Education

Social justice as a topic and learning tool can help to educate and transform a new generation of AgLS professionals. Social justice is defined as critiquing social systems, transforming thinking, and enacting action for social, political, and economic justice (Fraser, 2009). Social justice uplifts the voices of the silenced and marginalized and examines the ways we (re)produce oppression. Because of the reliance on educational strategies that encourage tolerance, AgLS education often avoids topics that are most relevant to the lives of students of color. Examining social justice in AgLS can help students of color process how they have historically been and are currently situated within the discipline and consequently, become more engaged in the course curricula (Cummings, 2019; Ladson-Billings, 1995; Martell, 2018). Further, curricula developed with social justice in mind not only enhances student achievement, but also empowers students to pursue justice for themselves as well as for their communities (Duncan-Andrade, 2005). For example, assignments and discussions that address issues such as food justice, environmental justice, and critical social theories encourage students to unmask and critique power structures and oppressive systems, and empower them to make change in their own lives and those of their communities.

Learning Spaces as Counterspaces

Counterspaces work to ensure that marginalization is not (re)produced in a space (King & Pringle, 2019), and foster social and emotional health of marginalized and minoritized students (Case & Hunter, 2012). Counterspaces most often occur on the fringes of mainstream campus culture (Ong et al., 2018) and serve four main purposes for marginalized students: (1) to acknowledge the importance of centering their own learning, (2) to understand the importance and validity of their own experiences and knowledge, (3) to share their own experiences of isolation and marginalization, and (4) to cultivate and maintain a positive learning environment for themselves (Ong et al., 2018; Solórzano et al., 2000). Counterspaces are most often homogenous by race/ethnicity and/or gender, and often occur outside of academic spaces such as classrooms and laboratories. Courses that focus on the histories and experiences of marginalized people provide an opportunity as a counterspace for marginalized students to share how they experience their identities within their institution, their discipline, and the classroom settings. Further, they can connect with peers, learn about other cultures' experiences, and develop positive student-instructor relationships (Nuñez, 2011).

Purpose

The purpose of this study was to explore students' learning experiences in a new interdisciplinary social justice-based graduate course focused on historical and contemporary DEAI issues in AgLS. The research question that guided this study was: What were students' experiences of the new social justice-based course curricula?

Methodology

The Course

During my (Author 1) doctoral studies, I had been thinking for some time about how I would enjoy a course that discusses historical and contemporary issues of marginalized groups in agriculture broadly. Up until that point, the only Black people discussed in our graduate agricultural education courses were Booker T. Washington, George Washington Carver, enslaved people, and a (very) brief overview of 1890 Historically Black Land-Grant Universities. But I wanted more. I wanted to know more about the perspectives of marginalized individuals in AgLS. I wanted to know about the movements and accomplishments of people of color in AgLS. I wanted to feel a connection to what I was learning. I asked other Black graduate students in the agricultural education department and they agreed that it would be beneficial to learn more about AgLS history, inclusion, equity, and access. I developed a list of topics and crowd-sourced topics from other graduate students. I took the idea for the course to my advisor, a Black man, and he agreed that we should teach the course the next semester. From there, I developed a syllabus and flyer for the course.

Critical Perspectives in Agriculture was held for the first time during Spring 2020 in an agricultural education department at a Midwestern land-grant university. The course was organized as a three-credit course and met once a week. A group of six students was enrolled in the course with an additional two graduate students who opted to sit in on class meetings. One of the opt-in students was a Ph.D. candidate in Agricultural Engineering and the other was a master's student in Agricultural Education with a background in Food Science. This study will focus on the six students enrolled in the course (Table 1). Though most of the students enrolled in the course were in the agricultural education department, their undergraduate backgrounds varied (e.g., Animal Science, Agricultural Education, Food Science).

Table 1

Participant Information

Pseudonym	Major	Program & Year	Race
Iris	Agricultural Communication	Undergraduate, Senior	White & Latinx
Amaya	Agricultural Education	MS, 1st Year	Black
Missy	Agricultural Communication	MS, 2nd Year	White
Nicole	Agricultural Education	PHD, 1st Year	Black
Charles Henry	Agricultural Education	PHD, 2nd Year	Black
Daisy	Animal Science	PHD, 3rd Year	Black

The purpose of the course was to critically examine and explore historical and contemporary issues and perspectives in the context of U.S. agriculture broadly. Specifically, course objectives were developed to encourage students to identify, analyze, and critique the concepts, issues, and policies that shape the experiences of marginalized groups in agricultural contexts. Accordingly, the topics discussed were as follows: 1) Introduction to DEAI in AgLS; 2) Marginalized history in AgLS; 3) Whiteness in AgLS; 4) Race, gender, and intersectionality in AgLS; 5) Ecofeminism and Ecowomanism; 6) Disruptive vs. traditional research, place-based education, and participatory action research; 7) Land injustices, labor disparities, and Critical Race Theory; 8) Urban agriculture and food justice; 9) Racism in the land-grant and USDA systems; 10) LGBT+ and Disability in AgLS; 11) Environmental justice; 12) DEAI in AgLS Education; and 13) The future of AgLS. Weekly readings were uploaded to Blackboard and discussed each week. Students were encouraged to send in readings or current events

that were subsequently discussed in class. I prepared class presentations to aid class organization and flow, and to further understanding on theoretical and methodological concepts. In class, students were engaged in small-group activities and discussions.

Class assignments included a researcher statement, weekly reflections, social justice initiative or evaluation, op-ed writing, and a final paper. The researcher statement encouraged students to consider how their positionality, beliefs, and backgrounds influenced their research goals, process, and how they would like to develop as a researcher. Weekly reflections encouraged reflection and reflexivity in relation to each week's topic, and also helped students make connections between prior topics covered in class. Reflective writing allowed space for students to share perspectives or thoughts they may have been uncomfortable sharing in class. Further, reflection writing promotes higher-order thinking about complex issues (Lee et al., 2014), such as intersectionality, social justice applications in agriculture, oppression, and connecting historical events to current events (Mio & Barker-Hackett, 2003). For the social justice initiative/evaluation, students either developed an initiative or evaluated an initiative undergirded by a social justice framework. This assignment encouraged students to think as a future AgLS professional (e.g., Extension Educator, Faculty, Lab Director) tasked with developing and/or improving programs, initiatives, and curricula. Students also developed an op-ed on a topic related to DEAI in AgLS. Op-eds provide students with writing experience beyond formal academic writing. For the final research paper, students wrote a research proposal consisting of an introduction, literature review, and methodology. As illustrated above, there were a variety of engaging writing assignments in this course. The concept of "writing-to-learn" suggests that writing is ideal in helping students learn complex ideas and become active in the learning process (Brock et al., 2019).

Methods

I used a single case study methodology to examine students' experiences and perceptions of the course. Students completed a pre- and post-course questionnaire, and participated in an interview at the conclusion of the course. The pre-course questionnaire asked students why they were interested in taking the course, what they hoped to gain from the course, and if there was anything not listed in the syllabus that they were interested in learning more about. The pre-course questionnaire was used to make any last-minute changes to the syllabus to meet student needs and interests. Encouraging students to contribute to the topics studied and readings discussed during class provided an opportunity for some co-construction of course content. This co-construction allowed me to share power with students and gave them some control over what they learned and contributed to the course. The post-course questionnaire was developed from the course description and learning outcomes, used a four-point scale, and was reviewed by a panel of experts. The panel of experts were social scientists from the institution's Agricultural Education and Curriculum and Instruction departments who have experience teaching and conducting research regarding marginalized populations, pedagogy, and curricula. Participants were also asked open-ended questions to determine how the course could be improved, what they enjoyed about the course, and what enhanced and distracted from their learning. Open-ended responses and qualitative data were analyzed using descriptive and initial coding (Saldaña, 2015). Student reflections and other course assignments were also used as data. All data were triangulated and organized into categories and themes. Trustworthiness was established through credibility, confirmability, and dependability. We used member checking and debriefing for credibility; an audit trail using memos, field notes, and thematic analysis for confirmability; and well-organized written and digital notes regarding the research process for dependability (Creswell, 2007). Because case studies are used to gain an in-depth understanding of a phenomenon in a specific context, transferability is not the goal of this research (Merriam, 1998).

Data Analysis

All of the interviews were transcribed by a third-party transcription service, checked for accuracy by the researchers, and then sent to the participants for accuracy.Cro To begin analysis, I printed hard copies of interview transcripts, submitted assignments, and personal notes for manual coding. I read through the interview data several times, and revisited students' artifacts. I used two cycles of coding: initial coding to pre-code through highlighting, underlining, and note-taking; then focused coding to organize the data around salient categories (Saldaña, 2013). The quantitative data were analyzed using descriptive statistics.

Positionality Statement

As Black scholars in agricultural education, we are aware of the barriers and challenges Black students experience in the classroom. We are both Historically Black College and University (HBCU) graduates as well as graduates of Historically White Institutions (HWIs), as are many of the students in our course. Additionally, as HBCU graduates, we understand the sense of belonging students can experience in the classroom. We understand the importance of learning about and from people that look like us, and have been afforded that opportunity. However, our HWI experiences guided us to develop this course primarily due to similar educational opportunities not being available at any point during our time in the department. Further, our collective experiences informed how we gained entry and trust to collect, analyze, and interpret data for the study.

Pivoting in a Pandemic

Like most institutions, after spring break our class pivoted to online instruction due to the COVID-19 outbreak. Our class looked forward to meeting each week and was extremely disappointed with the abrupt transition to online instruction. Fortunately, our course was discussion-based and transitioned to online instruction with very few issues. We changed our approach to instruction by moving to a synchronous online class format, not holding class the entire three hours, extending assignment deadlines, utilizing Zoom's breakout room capability for smaller group discussion, and using fewer presentations to deliver content. We also spent a significant portion of our first online class discussing students' mental health, how they were handling the transition to online education, and how it was affecting their personal lives. We did not force students to turn on their cameras as we felt it could be an intrusion into the students' home and personal lives.

Findings and Discussion

All six enrolled students completed the post-course questionnaire, participated in the interviews, and chose their own pseudonyms. The findings are organized into the following sections: what students enjoyed most in the course, race and representation, the students' perceptions of the learning experiences and outcomes, and suggestions for improvement.

What Students Enjoyed Most

Overall, students indicated having a positive course experience. Students reported most enjoying the readings and class discussions, hearing others' perspectives, and the assignments. The readings, discussion, and exposure to different perspectives were often discussed together in the interviews. Regarding the readings and discussions, students appreciated how the readings connected to current events, were interesting, useful, and introduced them to other perspectives. On being exposed to varying viewpoints, Iris shared:

> The fact that it was so discussion-focused and talking about all the details, all the perceptions, just trying to look at things from different viewpoints, I loved all of that. I felt that it was so impactful just to hear everyone's personal experiences with different things. Like their past histories, things that they had learned or been taught…I love how each week, we were building on something from the week before, but it was also an entirely new topic. And most of the time it was something that I hadn't considered the night before.

Students also shared they enjoyed the assignments because they allowed them to examine topics of interest in-depth. Amaya stated that she enjoyed the assignments because "…we were allowed to really think about our research, that we can apply it [the assignment] to our own thesis. It was good just to be able to do assignments that related to something that you'll actually use throughout your academic career." Regarding the readings, students appreciated how readings were related to current events, were connected but still their own topics, and would be useful outside of the classroom.

The two course assignments students enjoyed most were the op-ed and the social justice initiative. Regarding the op-ed, the majority of the students agreed that a benefit of the op-ed assignment is that it was a form of writing they do not often have the opportunity to use in the classroom setting. For instance, Nicole stated, "it showed me that there is another way of writing besides what we're used to all the time. I have these opinions about whiteness and study abroad, and I can voice that there [in op-eds]." Relatedly, Iris shared:

> …if I could get this published somewhere and share it, then I'm helping to spread that message to my personal circles, and then maybe sharing a little snippet of what we learned in the class with the larger population…But the meat of that assignment, I think was definitely what stood out to me the most.

Concerning the social justice initiative, Daisy stated, "The social justice initiative will benefit me later in my career." Similarly, Missy explained:

> I feel like I've got more of a base now for if I want to make my own initiative in the future. Some form of [an] extension urban ag project. I did mine on the Food Justice Initiative in Chicago. I would have never been aware of that before this project. I would have probably not really researched anything similar to it. So now I know it, and I've already got some ideas of, "You know what they could do also? Or you know what I could do with something similar to this?" So, that was another good introductory project for future things I think that I'll use in extension.

Interestingly, Charles Henry mentioned that the social justice initiative was a more meaningful assignment for him than the final research paper. Further, he would have preferred it be the final course assignment. This led me to ask the other students if they felt I should keep the final paper for the next iteration of the course or remove it. The other students suggested keeping the research paper as the final course assignment, but offered suggestions for making it a better assignment, which will be discussed later in this article.

Race and Representation

I asked students why they took the course, and all of the students shared in their responses how they were looking for perspectives in agriculture outside of what they are normally exposed to in agricultural education courses. Specifically, responses included:

- "I plan on working with marginalized communities [in Extension] and learning from non-white perspectives is important. I've never seen anything like it [this class] before."
- "I took the course because there have been no other courses focused on underrepresented minorities in agricultural spaces throughout my graduate education. It provided a missing perspective."
- "…I wanted to get away from the whole traditional ag class."

- "…I am going to be an Extension educator in urban agriculture…I thought this class was going to be a great chance for me to understand working with underrepresented minorities in agriculture…I am fully aware I come from a white area."
- "…there's a lack of Black professors at [Midwestern University]. When I see one [a Black professor] teaching a class…I'm going to take it…This was my only chance to take an ag class that showed different perspectives of ag beyond the white man's eyes."

These responses, and the ones not included, display issues that Black people in postsecondary agricultural education have been discussing for years. First, there is a need for more courses that discuss the history and experiences of marginalized groups in agriculture. Every student mentioned wanting to hear about perspectives different from those they have learned about. In fact, students mentioned in the interviews that the course should be mandatory in every agriculture major's curricula. Charles Henry explains:

> This type of class should be mandatory for students, even if you're a student teacher, you should still have to take this type of class…Most ag education students are white. Even those that come from other cultures, they don't necessarily understand the U.S. context of everything. I think by having this course, you give a good foundational understanding. Like, 'Hey, you should account for others' perspectives as you go through your education and future professional lives.'

Missy shares, "Here I am leaving [Large Midwestern University], ready to go out and start educating and I feel like I'm missing a huge chunk of really important information; I would have certainly graduated and known nothing about if I hadn't taken this class." Research on diversity in the agricultural workforce has emphasized the need for agricultural graduates to be able to communicate and work with individuals from different cultures and backgrounds (The National Academies, 2009). Missy's response exemplifies how students can matriculate through an agricultural program with little to no DEAI education or training. White students' lack of exposure to and social interaction with racially/ethnically minoritized groups can result in the formation of assumptions about racially/ethnically minoritized groups that go unchecked (Anderson, 2015). These assumptions can include that minoritized groups are incompetent, not collaborative, and always in need of accommodation (Grant & Cleaver Simmons, 2008; Matias, 2015).

Second, students indicated the need for more Black faculty in agricultural education. I taught this course as a postdoctoral scholar under the supervision of my doctoral advisor. Black graduate students were looking for Black faculty and staff as instructors, mentors, and role models. Additionally, it is important for white students to see Black faculty and faculty of color in the classroom. Having faculty of color, in this case Black instructors, provides representation that contributes to positive messaging and images of Black people (Harris, 2007). The lack of Black faculty can serve as a microaggression, sending the message to Black and other minoritized students that they are not wanted in the department or the department is indifferent as to whether we are here or not (Cropps & Esters, 2019). Missy mentioned that she had not had Black instructors or faculty until she came to Large Midwestern University, while Iris had come into contact with a handful of Black teachers, faculty, and staff in her K-12 schooling and undergraduate education. Amaya felt that having a Black man and a Black woman teach the course helped to bring balance to the class. Further, she mentioned that she was more comfortable discussing difficult topics and receiving feedback from us. Both Charles Henry and Nicole stated that they felt uneasy taking DEAI classes with white faculty, and there was increased relatability with two Black instructors. Similarly, Daisy felt having Black instructors was "refreshing"and that class was "the best part of my week." Then Daisy started crying. That is how much representation in the classroom means to Daisy and many other Black folks in the classroom. To that point, Daisy explained, "I think most of the Black students on campus feel this way. It's not easy walking around on campus or going into a class when most of your students…or classmates are white."

In addition to the diversity of perspectives represented in the course material, the students, and instructors, we held class in the campus' Black student center. According to the center's website, the center provides holistic, purposeful, scholarly programming to strengthen understanding of African American heritage. For myself and many other Black students on campus, the center served as a second home and a counterspace. All of the students reported positively about holding the class in the center. The two white students, who were in their last semester, admitted they had never been inside of the Black student center, but appreciated the opportunity to explore the building and the wealth of culture inside.

Student Course Experiences

Student outcomes were organized into three categories: social awareness, theory and research methods, and positionality and understanding (Table 2). Regarding social awareness, students felt that the course enhanced their ability to recognize injustice (100%), helped to develop how power structures affect marginalized folks' experiences (86%), and enhanced their sense of social responsibility (71%). We suspect the percentage of agreement for enhanced sense of social responsibility is lower because most of these students were previously engaged in DEAI work and research and already had a strong sense of social responsibility. For example, Charles Henry commented that the course "reinforced" what he knew about the issues in agriculture. His research, coursework, master's thesis, and current job all focus on equity in education and agriculture, so he already had prior knowledge on many of the topics discussed in the course.

Regarding theory and research methods, students felt they developed the ability to critique diversity efforts in agriculture (100%), that learning about critical theories enhanced their understanding of injustices (100%), and learning about non-traditional research methods enhanced their understanding of equitable research (100%). In learning about the history of marginalized groups in agriculture, Iris felt that it helped her to assess efforts in place today. She stated, "Learning about the history helped me see that there's not enough being done…and it helped me understand that what's happening today is not an anomaly. It's part of a recurring pattern and system that really needs to be changed." Regarding research, students reported the course helped them narrow their own research, made them feel more prepared to conduct research, affirmed the need for their research, and they appreciated the introduction to new theories and methods.

Regarding positionality and understanding, students felt challenged to interrogate their own privilege (83%), were challenged to consider others' experiences of oppression (86%), and felt that learning about the history of marginalized people provided understanding to contemporary equity issues in agriculture (100%). Nicole noted that the course made her think about her simultaneous oppression and privilege due to intersectionality. She stated, "Yeah, I'm a Black woman, but I do have some privileges in my life." Many of the students had never heard of positionality or reflexivity. Amaya reflected, "You might have a privilege, but how you act on it is the question now. That's what the class helped me think about."

Table 2

Students' Perceptions of Learning Experiences and Outcomes

Items	Percentage of Agreement
This course enhanced my ability to recognize social injustice.	100
This course enhanced my sense of social responsibility.	71
I developed the ability to recognize how power structures shape marginalized groups' experiences.	86
I developed the ability to critique diversity efforts in agriculture.	100
Learning about critical theories (e.g., Critical Race Theory, Critical Whiteness, and Intersectionality) enhanced my understanding of injustices in agriculture.	100
Learning about non-traditional research methods (e.g., Place-based Education and Participatory Action Research) enhanced my understanding of inclusive and equitable research in agriculture.	100
This course challenged me to interrogate my own power and privilege.	83
This course challenged me to consider how others experience oppression.	86
Learning about the history marginalized groups in agriculture helped me to understand the contemporary issues of marginalized groups in agriculture.	100

Areas for Improvement

As previously mentioned, the students shared valuable feedback regarding the final research paper and with the exception of Charles Henry, strongly suggested it be kept on the syllabus. Students felt that the final research paper provided them an opportunity to receive detailed feedback on their own research, helped them to brainstorm their research, and saw it as a beneficial tool for writing practice. To improve the assignment, students suggested the requirements for the assignment be given in greater detail. A few students had not done research yet or been required to write a research proposal, and felt a little lost on how to approach the assignment. Built into the larger research paper assignment are two smaller assignments to be submitted in a scaffolded manner. Students suggested the research paper be scaffolded further and suggested beginning the scaffolding process earlier in the semester.

Another suggestion from the students was to add a week on 1890 Historically Black Land-Grant Universities (HBLGUs). The information on 1890 HBLGUs was presented with diversity and inclusion concepts in secondary agricultural education, FFA, and 4-H. We agree that dedicating a week to 1890 HBLGUs would be beneficial for students in the future. Outside of the Morrill Land-Grant Act of 1890, information regarding 1890 HBGLUs may be glossed over, as exemplified by some of the students' experiences. In fact, Missy, who was graduating at the end of the semester stated, "I had no idea what those [1890 HBGLUs] were."

The final recommendation is derived from comments made by students. Though not stated as a complaint, many students commented on the number of readings required each week. Many of the readings were quite dense, and students mentioned they put a lot of effort in completing the readings. We did assign other forms of class material outside of research articles. For example, Kimberlé Crenshaw's TED Talk on Intersectionality was assigned to supplement the readings on race and gender. In the future, we could also use podcasts and other forms of educational materials to prepare students for class.

Conclusions and Implications

This paper presents an example of a social justice-based course that was successful in engaging students and promoting and encouraging social awareness in agricultural contexts. Additionally, this study illuminated the need for AgLS educators to better address and embed DEAI concepts into their courses and curricula. Our study found that AgLS curricula and pedagogy needs to decenter whiteness to better engage and inform students from all backgrounds. Decentering whiteness in AgLS curricula involves examining and acknowledging the history of marginalized groups in agriculture. As explained by Martin et al. (2019), by ignoring the historical agricultural knowledge of Indigenous people and only acknowledging agricultural history with the arrival of European colonizers, AgLS educators center whiteness in agriculture. Further, students in our class noted several times how learning about diverse histories helped them to better understand inequities happening today.

Decentering whiteness in instruction is necessary to create inclusive classrooms by utilizing culturally relevant pedagogy and equitable citation practices. Holding class in a culturally rich space, disrupting the space by sitting in a circle instead of traditional classroom rows, decentering whiteness and power in the syllabus and course content creation, and humanizing the learning space by discussing our own experiences helped to cultivate a classroom counterspace. This conclusion is in line with research from Archibeque-Engel (2015), who found that physical artifacts in the learning space can send messages of inclusion or exclusion. Holding class in the Black student center made all students feel comfortable and included within the learning space. Additionally, reading, watching, and listening to work from scholars of color helps to contribute to more equitable citation practices. As scholars and researchers are introduced to works outside of whitestream authors, methods, and theory, they have more resources to cite. According to Ahmed (2012), "citational practices structure a collective body of work: disciplines that cohere around masculinity and whiteness" (p. 257), creating a network of male authorship and citational practices (Mayer et al., 2017). This "old boys" network of authorship and citation negatively affects marginalized scholars, and subsequently, new and developing scholars seeking to conduct research with and on marginalized groups. Our findings are also in agreement with Masta (2021) who, in a study on classroom counterspace creation, found that by centering the voices and experiences of her students, Black and Brown scholars, co-creating course content, and decentering whiteness, her classroom was a counterspace for her students.

It is important for students to be able to learn how to apply theories and methodologies that are often not used in AgLS research to marginalized groups. Students in our course learned about Critical Race Theory, Intersectionality, and Critical Whiteness, and we examined how these theories could be used in an AgLS context. Additionally, we discussed how Place-based Education and Participatory Action Research would be applicable to AgLS research. Further, students were able to discuss identity-based oppressions in an AgLS setting. In fact, students commented having discussed the aforementioned theories and methods in courses in the College of Education; however, they had not seen them in use in agricultural education-based studies. Further, students shared it was important for them to see how they can be used in agricultural contexts. For example, in a study on agricultural education pre-service teachers, Vincent et al. (2014) found that less than one out of five pre-service teachers receive multicultural education instruction from an agricultural educator. Further, the authors found that the pre-service teachers who were enrolled in a multicultural education course taught by an AgLS instructor were further along in their cultural critical consciousness development than those who were not. It is important that students see how DEAI concepts are applied directly in AgLS settings.

The findings of this study also revealed that AgLS as a discipline needs to make more concerted efforts to hire and retain Black faculty. We focus on Black faculty here because our students were mostly Black and expressed the need to see and interact with more Black faculty. However, the same can be said for other racially/ethnically minoritized groups. The demographics of AgLS faculty do not

match the diversity of individuals in the agricultural workforce. Moreover, the demographics of AgLS faculty do not reflect the rich history of marginalized people in agriculture. Agriculture was built on the backs of marginalized people through agricultural labor but we have been excluded from it in higher education.

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