Is Diversity on Their Minds?
Perceptions of Diversity in an Undergraduate Population Using a Mixed-Methods Design

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Abstract

Issues of diversity and inclusion have plagued higher education and college of agriculture. Understanding that diversity encompasses more than just race, this work examined both race and culture/environmental influence concurrently through open-ended and Likert scale survey questions that were created to assess agricultural students' perceptions of diversity and inclusion. This mixed methods paper focuses on student responses to questions of diversity and inclusion and analyzed the qualitative responses of students' perspectives of diversity, inclusion, and ways to improve the campus climate in a College of Agricultural and Life Sciences at a mid-Atlantic land grant institution. Three themes emerged: what diversity and inclusion means to students, feelings of discrimination while in college, and suggestions to improve the climate of diversity and inclusion in the college. Results showed there were a wide range of perceptions about diversity and the need to address feelings of discrimination and racism, with varied responses from minority and majority students. Recommendations include a need for increased interaction between minority and majority students, and a call to educate and promote campus diversification that starts with university administration and continues through faculty/professors and students alike.

Introduction

Gauging the campus climate for diversity is not often a one-dimensional task. Many colleges and universities look at only ethnic diversity as the measurement for which diversity is logged and increased, failing to acknowledge other kinds of support for diversity and inclusion. While racial diversity is important, other elements of the climate also require attention and are key areas for the health and vitality of an institution of higher education (Hurtado et al., 1999). Exploring the relationship between the dynamics and multiple ways of assessing diversity in an environment and their link with educational outcomes for students is a relationship that will help prepare students for the lives beyond post-secondary education.

Colleges of agriculture have worked with the agriculture sector to become increasingly diverse in racial and ethnic composition in order to reflect and train the workforce that is needed to respond to the global demands for career ready students. A workforce that is well versed in a variety of cultural working environments is important to ensure the United States maintains its global agricultural rank (Tindell et al., 2016). The Environmental Systems Research Institute (ESRI) shed light on the changing population of the US with major increases in Hispanic and Asian ethnicities. As the US population continues to diversify, younger generations will be apprised of Hispanics, Asian-Americans, Asians and other races (Environmental Systems Research Institute, 2011). In the span of 40 years, the non-white population has more than doubled, from 17% to 38% (Tienda, 2013). These trends are not reversible, making demographic diversity in higher education and agriculture concurrent social trends.

The population dynamics parallel the agriculture industry with a 15% increase in the number of minority producers since 2007. Asian-American and Hispanic producers showed the most growth, with increases of 22% and 21% (National Agricultural Statistics Service, 2014). College students pursuing careers in agriculture must be aware and educated of the cultural diversity they must work with, be mindful of the misconceptions they might have, and work to be unbiased in their professional careers. Preparation of students during their collegiate careers is one way to educate and help expand the worldview of students in an intentional way.

Theoretical Framework

This work is situated in the diverse learning environment as the framework for exposing what students' thoughts, perceptions, and misconceptions were about diversity and inclusion efforts and used the theory as a

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guide to help make recommendations for future practice (Hurtado et al., 1999). Scholars have shared their opinion of what diversity is and how it might be defined. For this work, we will use the working definition of diversity being described as a combination of factors encompassed by three specific descriptors: race, socioeconomic status, and cultural/environmental influence. After reviewing the current literature, the research team chose this definition because race, socioeconomic status, and cultural/environmental influence were commonly cited as important or beneficial factors regarding diversity (Denson and Chang, 2009; Park et al., 2012; Whitla et al., 2003). Variations among these three factors can produce a holistically diverse individual in a uniquely personal aspect with regards to value differences, personal opportunities, and differential experiences. Defining our working definition of diversity as a collective group was important early on to help influence our research question and guide the direction of our study.

Campus diversity has continued to remain on the forefront of university policy agendas but is commonly only defined in terms of race and ethnicity (Hurtado et al., 2003). Despite increases in ethnic minority enrollment, most universities and colleges still primarily consist of white students and faculty. In fact, the National Center for Education Statistics reports that of the 17.3 million undergraduate students in 2014, 9.6 (55.5%) million were white. Minority enrollment, while increasing for Hispanic and black students, significantly lagged. Students of Hispanic (3.0 mil), Black (2.4 mil), Asian (1.0 mil), American Indian/Alaska Native (0.1 mil), and Pacific Islander (0.1 mil) ethnic background were also identified (National Center for Education Statistics, 2016). With certain ethnic groups usually consisting of 10% or less of the population per group, such groups can often take on a "token status" in college which also heightens such stigma consciousness levels (Brown, 2005).

The numerical representation of various racial, ethnic, and gender groups on a campus is referred to as "structural diversity." Most institutions tend to focus on the numerical representations of groups as a method of accounting for achieving equity (Hurtado et. al, 1999). Campuses with high proportions of white students provide limited opportunities for interaction across race and ethnicity and limit students' learning experiences with diverse groups (Hurtado et al, 1994). This has caused a perceived difference of the campus climate between students of color and white students (Rankin and Reason, 2005).

In environments lacking a diverse workforce or population, underrepresented groups are regarded as symbols or "tokens" rather than individuals, thus increasing the visibility of the group, exaggerating the differences among the groups (Kanter, 1977). Negative effects can also be produced from underrepresented groups when there are too few students in an ethnic minority and can lead to underperformance or dropping out (Hurtado et al., 2003). Tinto's Model of Institutional Departure (1993) shows that student integration must be both academic and social experiences. Negative experiences between peers and/or faculty can have direct impact on a student's institutional fit (Tinto, 1993).

Student Body

Research suggests that campuses that increase their racial and ethnic enrollments can significantly improve the college experiences of historically underrepresented groups. Attaining a diverse student body and hiring diverse faculty result in significantly more opportunities for all students to learn how to interact with others from different cultural backgrounds after college (Hurtado et. al, 1999). Interactions among students of color and white students increase as structural diversity increases, increasing discussions around racial and ethnic issues. Greater structural diversity provides all students with a wider range of social options and creates a more comfortable institutional space for all students (Chang, 1996). A culturally diverse campus environment can also increase a student's ability for critical thinking and intellectual curiosity (Bollinger, 2015). Chang et al. (2006) reports that students with high frequency of cross-racial interaction tend to have stronger levels of openness to diversity, cognitive development, and self-confidence.

Recruitment of underrepresented students into university agricultural programs can include activities that build relationships with community colleges, participation in career fairs, collaboration with campus diversity offices, and conducting outreach through summer education programming to high schools with high proportions of minority students (Fletcher and Himburg, 1991; Taylor et al., 2003; Greenwald and Davis, 2000). Recruitment and retention continue to be pivotal factors affecting the agricultural workforce. Providing academic support, career preparation, mentorship and other service opportunities are all key components in retaining students in agriculturally related majors (Cohen et al., 2015).

Faculty and Staff

One way to increase diversity among the student body is to commit to an equally diverse faculty and staff. The campus racial climate can be increased when faculty of color are recruited, encouraged and supported by the university (Allen and Solorzano, 2001). Faculty offer numerous advantages to the students, from teaching them on a regular basis, to serving as their research advisors, to coaching and helping them with student run clubs and organizations (Smith, 1989). Diversification of the faculty serve as important representatives of the commitment that the institution is welcoming to a diverse student body. A diverse faculty and staff reflect one measure of institutional success for an educational institution in a pluralistic society (Smith, 1989). Diverse faculty and staff bring more voices and perspectives to what is taught, how it's taught and why it's important to learn. Increasing numbers of racial and ethnic students and faculty may not automatically improve campus climate and attention to other details of campus climate

become necessary when the structure of the social environment changes.

Research Questions

The following question guided this study:

1. What are the perceptions of diversity and inclusion among undergraduate students in a College of Agriculture and Life Sciences at a mid-Atlantic land grant institution?

Methods

This mixed methods study looked to address the perceptions of diversity in a College of Agriculture and Life Sciences. An embedded design was used in which quantitative data was embedded with a qualitative heavy (emphasized) survey to collect additional data. Both quantitative and qualitative data were collected together to identify key constructs, resources, and understand the way a student would interpret diversity and inclusion. Another strength of concurrently collecting data was to identify potential solutions and resources students suggested as part of the instrument (Creswell and Clark, 2011). The qualitative data provided more opportunities for participants to respond and share their experiences, perceptions, and thoughts on diversity at the university. The data was then used to develop focus group questions for follow up at a later date and time. Students from a College of Agriculture and Life Sciences (N=301) were asked to participate in a three-part online survey that included Likert type items, open ended items, and demographic items. This manuscript focuses on the qualitative findings of the open-ended questions and was the first part of an embedded mixed methods.

This was a single collection using an undergraduate population situated in a College of Agriculture and Life Sciences. Upon receiving Institutional Review Board approval and obtaining approval from the administration at the university, participants were sent an invitation to participate in the research. Students consented to participation and typed in their responses to a series of questions provided in the survey instrument.

Instrument

A descriptive survey methodology was employed to glean information about the perceptions and attitudes of diversity and inclusion from an undergraduate student's point of view. This was a one-time interaction using the Dillman method (Dillman et al., 2014) to distribute the survey instrument over a three-week period. Descriptive studies are usually the best method for collecting information that will demonstrate the relationship and describe the question being answered. These types of studies are often conducted as an initial step in research to glean baseline knowledge. Prior to conducting the study, the instrument was piloted by a panel of diversity and inclusion experts at the university who provided feedback on content, grammar, and syntax.

Based off the feedback from the pilot study, twenty-three questions were asked of participants as part of the instrument. Nine Likert type questions asked students for their personal view relating to diversity. Three short response questions allowed students to provide campus recommendations or go more in depth on a previous answer. One yes/no question on discrimination or seclusion on campus, with respondent's who answered "yes" to expand on the experience(s). Finally, nine demographic questions were used to assess student information.

Likert type testing was used; students were asked questions to ascertain their feelings on campus diversity. Psychometric survey techniques, like the Likert scale, allowed for the measurement of human attitude to better understand an individual's perceptions, abilities, and outlooks (Joshi et al., 2015). Students were asked statement questions to determine how well they agreed or disagreed with the statement. Using a four-point Likert test, students determined if they strongly disagreed, disagreed, agreed, or strongly agreed to the statement.

In vivo coding was done to determine what meaningful patterns were emerging to make up sub-categories of data based on the responses in the open-ended questions embedded in the survey (Charmaz, 2006). After open coding was complete, focused coding occurred. The resulting codes were more direct and began to explain larger segments of the data as they related to student's perceptions of diversity. Focused coding helped determine the adequacy of the in vivo codes (Charmaz, 2006). By comparing data to data, focused codes were created to help the researcher begin grouping like codes and refining them into larger groups of categories. Four researchers and the research advisor participated in the coding process to ensure inter-rater reliability (Charmaz, 2006).

The final step in the coding process was axial coding. Axial coding helped the researcher bring all the data together and determine themes based on the research questions (Corbin and Strauss, 2008). Development of the codebook emphasized the action-oriented nature of language (Roth, 2008) in which participants discussed the issue of diversity and inclusion. Using constructs from the work presented in the literature review and taking the coding scheme, the codebook was developed around key areas.

Participants

The participants were selected based on their affiliation and major at a mid-Atlantic land grant institution. The researchers partnered with the diversity council and academic dean in a college of Agriculture and Life Sciences to obtain permissions to design, pilot, and distribute the instrument using the Dillman method (Dillman et al., 2014). Students were sent the survey three times over the course of three weeks. The survey was sent to every fulltime undergraduate student with a primary major in the college and current student status with the university.

Results and Discussion

Descriptive statistics were collected and aggregated to identify participants and their self-identified demographic information. Twelve percent of the student population responded to the survey instrument within the allotted time frame. Participants were evenly distributed from freshman, sophomore, junior, and senior year students and ranged from 18-23 years in age. Participants were primarily female (69%) and white (74%). Other respondents varied in self-identified ethnicity with 25% Asian, 7% Hispanic, 6% black, and 5% Native American.

This closely follows the College of Agriculture and Life Sciences demographic information which is primarily female (67%) and white (73%). Ethnicity of CALS undergraduates varies slightly with 6% Asian, 6% Hispanic, 3% black, and 0.2% Native American. The increased response rates for undergraduate students of ethnic minorities could be explained by minority students having more interest in the topic and the desire to have their perception/voice heard in the study data.

Findings

Analysis of the data revealed three major themes: (a) what diversity and inclusion mean to students, (b) feelings of discrimination while in college, and (c) suggestions to improve the climate of diversity and inclusion in the college. Participants shared their experiences and perceptions of what diversity and inclusion meant to them, their experiences with racism or other forms of discrimination, and suggestions they had for the university and college to improve diversity and inclusion efforts. This data analysis served to inform the next step of the project, designing and carrying out focus groups of undergraduate students.

Perceptions of What Diversity Means

Students had varying responses to what diversity and inclusion meant to them. Respondents used the words "cultures," "backgrounds," "races," and "socio-economic status" in them. Other popular terms included "acceptance" and "exposure." Students addressed the question from two directions. The first aim was to define what diversity meant to them on a broad scale or big picture. The second addressed diversity and inclusion at the university and within the college. *"...is about the equal co-existence of multiple cultures; I think as a person it means that one is curious and open-minded to new cultural experiences or belief systems. It means that we actively seek out opinions that are different than ours and try to understand them, instead of silencing them as it has mostly been done due to colonialism/imperialism." "...is the ability to acknowledge and accept races, ethnicities, and cultures of our own and outside of our own. I do not believe [university], or technically, certain students enrolled at [university], understand or accept multiculturalism. I love [university] but when people ask me why I don't like it I can immediately attest to the lack of diversity."*

Feelings of Discrimination

Students shared dozens of examples of how they felt discriminated during their collegiate experience. The data was coded and put into sub-themes to best represent the examples and stories that the participants were willing to share. Sub-themes included technology, defensiveness, religion, culture/background, race/ethnicity, organizational, racism as a two-way street, gender/sexual identity, and faculty and staff. Technology, race/ethnicity, and racism as a two-way street were then selected to be expanded upon below.

When asked if there is racial discrimination present on campus, 40.8% moderately agreed to the statement. Other responses included 21.8% strongly disagree, 30.3 moderately disagree, and 7.1% strongly agree. Taking it a step further and looking at the question based on identified race, students who self-reported as white disagreed 56% (22% strongly disagree and 34.7% moderately disagree) of the time. This is in direct contrast to students of an ethnic minority. When asked the same question regarding the presence of racism on campus, 85% of black students, 65% of Asian/Pacific Islander, and 50% of Hispanic/Latino students strongly or moderately agreed.

Technology

Technology was the vehicle that many students described as the source of their ill feelings, negative experiences, or places they confronted racist or discriminatory language at the university. Participants cited technology mediums such as Yik-Yak, Facebook, and other online applications as places where students would post derogatory or inflammatory comments: *"During December 2014 amongst the Mike Brown and Eric Garner situations occurring in the US, students were posting on Yik-Yak stating that it's Abraham Lincoln's fault for letting all the apes free and that everyone should still own a black person. That situation forever altered my perception of [university] and made me feel extremely secluded and discriminated against on campus."*

Race/Ethnicity

Students felt as though they had been discriminated against because of their race and ethnicity. Students who self-identified as a minority cited the lack of diversity on campus as one of the key issues they had in reference to not knowing or interacting with anyone else who was like them: *"Sometimes I feel secluded because of the lack of diversity and African Americans on campus. I am often 1 of at most 3 or 4 black students in my classes and there are not many African American professors."*

Students felt that their race made others carry assumptions or have misconceptions about their ability, their similarities and differences: *"I've been called a terrorist just walking across campus. I've been kicked out of a social event hosted by a fraternity for bringing a male as my date (I'm a male). I've been called faggot for holding hands with my boyfriend. I was scared when there was a threat against Muslims on campus."*

Racism as a Two-Way Street

Students who self-identified as white felt as though their voices were being stifled because of their ethnicity: *"As a white male, I feel that we are the most discriminated against. We cannot voice our opinions like Muslims, blacks, Asians, or other races/religions because we are then defined as racist and rude. However, if a black or another race calls us out they are defined as a hero. Majority of people feel that white Christian people are those that are the most racist, but we are often the most discriminated against."*

Students wanted to be able to express themselves, no matter their ethnicity or other affiliations and beliefs. One student cited their desire to wear the clothing they liked and represent their identity was impeding and they felt judged for their expression: *"I have been discriminated against on campus while wearing shirts with the Confederate Battle Flag on them. I was repeatedly called a dumb hick and told the go south if I wanted to wear that flag. I was also told many times that the south lost and that Confederate lives don't matter. These experiences only supported that diversity and tolerance is a one-way street."*

Suggestions to Improve the Climate of Diversity and Inclusion in the College

Students offered a plethora of ways that the university and college could support diversity and inclusion to improve and grow the cultural identity of the students. Hiring a more diverse faculty and staff, offering programs and educational interventions, and recruitment were all suggested. Students suggested that it is about more than fulfilling a number that students need to shift their mindset about diversity and inclusion at the university: *"The proportions of white and colored students on campus are well known, but I think people should think of people as more than a number in a minority, and not assume that they are here only because they are a minority.*

Students also understood that diversity and inclusion efforts begin long before they come to college: *"I believe it is difficult for the university to foster a knowledge and acceptance of diversity. What is needed is a more accepting environment in citizens' homes and childhoods. That being said, I would reason that the university could make an effort to increase acceptance by continuing to foster the idea that, although there are many distinct cultures, abilities, and ethnicities at [university], we are all members of the same cohesive community, and would do well to treat each other as such."*

Discussion

The analysis of the qualitative data revealed three major themes: (a) what diversity and inclusion mean to students, (b) feelings of discrimination while in college, and (c) suggestions to improve the climate of diversity and inclusion in the college.

Perceptions of What Diversity Means

Students were in favor of learning more about what diversity and inclusion means, suggesting that classes be mandatory, education was offered instead of "raising awareness", and that cultures outside of their own are celebrated. Students were asked *"the college acknowledge racism exists on social media"* and were aware that *"a paradigm shift must occur on a macro-level before it could be addressed in the academic environment."* Diversity can promote innovation, problem solving, and new ways of thinking in organizations, but there is less evidence showing how diversity fosters campus integration (Tienda, 2013). Skeptics continue to argue on how much diversity is needed or sufficient to glean any pedagogical benefits to students. Diversity to achieve integration through sustained interactions can be fraught with problems but also highly rewarding. Teaching students to problem solve, exchange ideas, and challenge deeply held beliefs can be the positive outcomes that higher education in agriculture is looking for (Tienda, 2013).

Feelings of Discrimination

Students described their feelings of discrimination in various ways that were deeper than race, religious affiliations, and sexual identity. Socio-economic status, feelings that diversity and inclusion would threaten their current lifestyle, and uncertain feelings as to how to respond when they witnessed discrimination against others were prevalent. *"Although not entirely verbal or towards me, I have observed discrimination against others especially in those of other races. Such discrimination can create an overall attitude or atmosphere that is not enjoyable to be around."*

Those opposing diversity and inclusion view policies as "a threat to their lifestyles", as well as other valued resources and accepted practices (Bobo, 1983, p. 1198). The resistance that white individuals express to these programs doesn't reflect a rejection of inclusion but the defense of *"a lifestyle and position they think they have earned and do not question"* (p. 1208). Other studies confirm the importance of participation in racial and cultural awareness workshops to promote white students' willingness to learn about and have contact with others from a different racial/ethnic background (Springer et al., 1996).

Suggestions to Improve the Climate of Diversity and Inclusion in the College

Institutions can make a difference in increasing multicultural competencies among students by influencing students' course-taking behaviors and ensure that they are exposed to readings and activities that help them understand what it means to live in a diverse society (Hurtado et al, 1999). Planning and implementation of this kind of pedagogical change is often difficult, but in the best interest of institutions who are not recruiting and retaining students or faculty from diverse populations. Incorporating content into existing courses is a viable

option to help engage faculty who want to contribute to curricular transformation in their department or college. To go along with this curricular change, a transformation is also needed in the human development of the faculty and staff to cognitively address and teach these salient issues. By actively engaging in the conversation from a student's first year at the university, the university and college can help educate, clear up misconceptions, and expose students to issues of diversity and inclusion to expand their knowledge base. Racism is an intricate part of our socialization and all parties are responsible for seeking accurate information and behaving accordingly (Tatum, 1992). Building cross-disciplinary programs in ways that maximize heterogeneous enrollment so they do not produce segregation would be a responsible goal.

Faculty and Staff

Research suggests that increased involvement and the nature and quality of students' social interactions with peers and faculty have a positive influence on persistence, educational aspirations, and completion of a bachelor's degree (Pascarella and Terenzini, 1991). Faculties of color can provide support that benefits students from their particular groups. Students of color are likely to seek out faculty "who are like them" and whom they believe will understand them and the experiences they're going through, reducing their feelings of loneliness, alienation, and isolation. Diverse faculty and staff serve as important representatives of the commitment that the institution has to issues of diversity. More diverse faculty and staff serve to create a more comfortable environment for faculty and staff. They bring more voices and diverse perspectives *"to what is taught, how it is taught, and why it is important to learn, which are contributions that are vital to the institution"* (Smith, 1989, p. 57). Finally, *"a diverse faculty and staff reflect one measure of institutional success for an educational institution in a pluralistic society"* (p. 57).

Faculty can serve as a positive normative group to improve the climate for diversity through their roles as teachers, producers of new knowledge, and participants in institutional governance. Faculty may need assistance dealing with social conflicts, stereotypes, and misconceptions among diverse groups of students.

Summary

Understanding the perceptions of diversity from the view of the majority and minority can help build a working model of how to promote diversity within a college of agriculture. This framework can be built around the working models each cohort holds, addressing the differential variables for each group through various implications. Diversity workshops will help directly increase minority/majority social interaction, offsetting the white dominated precollege interaction the majority has while engendering a comfortable environment for social experimentation. Encouraging classroom discussions of racial/ethnic issues will help promote a deeper under-standing and level of comfort for the majority regarding views and discussions of minority differences, thus creating an expulsion of color-blind views. The interpersonal cross-cultural interaction between students, along with the intrapersonal shift in perception of diversity through open discussion of racial/cultural differences, is important to achieve a holistic perception of complete diversity within the university.

Contact and interaction must transcend casual acquaintance (Allport, 1954). Contacts that facilitate the reduction of prejudice are those that cause people to do things together. Socializing with someone of a different racial or ethnic group, discussions on issues related to race and ethnicity, attention racial awareness workshops, and participating in campus activities can be positively related to changes in racial attitudes and commitment to improving campus climate (Hurtado, 1992).

Attending a multicultural campus fosters more diverse friendship groups and after four years of college, white students attending public universities with relatively high levels of racial diversity showed greater social concern and humanitarian values (Deppe, 1989). When students of color are not widely represented, it is easier for white students to avoid interaction. Instead of ignoring the past, institutions should take it into account so they can assess how much has been accomplished and identify areas that continue to harbor exclusion.

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