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The Effects of Classroom and Informal-Interactional Diversity on Learning and Democracy Outcomes

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THE EFFECTS OF CLASSROOM AND INFORMAL-INTERACTIONAL
DIVERSITY ON LEARNING AND DEMOCRACY OUTCOMES

A Thesis
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By
Chloe Elizabeth Williams

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THE EFFECTS OF CLASSROOM AND INFORMAL-INTERACTIONAL
DIVERSITY ON LEARNING AND DEMOCRACY OUTCOMES

Date Recommended: **April 10,** 2015

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This thesis is dedicated to my parents, who never stopped believing in me.

Without your constant love and support, none of my success would have been possible.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

LIST OF TABLES

THE EFFECTS OF CLASSROOM AND INFORMAL-INTERACTIONAL
DIVERSITY ON LEARNING AND DEMOCRACY OUTCOMES

Chloe Williams   May 2015   45 Pages

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Exposure to increased diversity has been found to produce beneficial results in both learning and democracy outcomes across races; however, this relationship is more consistent for White students than students of color (Gurin, Dey, Hurtado, & Gurin, 2002). Using the data from a campus-wide diversity survey, the relationship between two types of diversity (informal-interactional and classroom) with learning and democracy outcomes was examined in a mid-sized university. Additional analyses were conducted to identify trends in diversity attitude and perception of campus climate toward diversity. Increased classroom diversity and informal-interactional diversity were both found to be related to increased learning and democracy outcomes for White students. For students of color, only classroom diversity was related to increased learning and democracy outcomes. Students of color and females were found to possess more positive attitudes toward diversity. Students of color perceived the more negative campus diversity climate than did White students.

Introduction

Diversity can be defined in a number of ways. One of the most common definitions of diversity is "any attribute that another person may use to detect individual differences" (Williams & O'Reilly, 1998, p. 81). This definition extends the umbrella of the term to include characteristics such as race, gender, age, religion, ability, or sexual orientation. Racial diversity in particular has been studied in a variety of contexts, but special attention has been given to higher education. Part of the reason for this emphasis is the expectation that higher education will prepare individuals to succeed in what is becoming an increasingly diverse world. Evidence of this comes from an examination of demographic trends in the workforce (Toossi, 2002). In 1980, non-Hispanic Whites constituted 82% of the workforce. Twenty years later that share fell to 73%, with the share continuing to fall as more African Americans, Hispanics, Asian Americans, and other racial minorities enter the workforce. If the trend continues, non-Hispanic Whites will account for 53% of the workforce in 2050. As the workforce continues to diversify, it is important for higher education institutions to prepare students for the experience of working with diverse others. In order for higher education to successfully prepare students for this experience, students must have meaningful interactions with diverse others—both in and out of the classroom. However, it also is important to keep in mind how individual attitudes toward diversity differ by group and how the perception of the campus climate may moderate beneficial outcomes of diversity. In order to explore the effects of attitudes and campus climate on diversity outcomes, I will examine the results from a campus-wide assessment of student attitudes toward diversity and campus climate obtained from a midsized, southeastern university. These results should shed some light

on how diversity is perceived and provide some guidance for how to support the role of higher education in preparing students for a diverse world.

First, I will examine the legal initiative to increase diversity within higher education. I will seek to explain why this initiative is both necessary and timely using theories of social identity. Then, I will explain the potential outcomes of diversity and the types of diversity that must be present for these outcomes to occur. Finally, I will discuss the individual factors and predictors that influence attitudes toward diversity regardless of college interactions with diverse others, and how these factors influence the perception of campus climate.

Affirmative Action

Executive Order (EO) 11246, regarding voluntary affirmative action, was implemented in 1965 to correct for past discrimination (Gutman, Koppes, & Vodanovich, 2010). EO 11246 does not require preference to be given to preferred groups (e.g., women and minorities); however, it does advocate for increased recruitment and outreach of these groups. Affirmative action has gained particular attention in the context of higher education. Since 1954, when the first major step in the desegregation of education occurred, there has been a substantial push for increasing diversity due to the significant benefits that diversity seems to have on cognitive development, acceptance of others, and other learning and democracy outcomes (Chang 2001; Gurin, et al., 2002; Gurin, Nagda, & Lopez, 2004). Accordingly, increasing diversity in the context of higher education has been declared by the Supreme Court to be a compelling interest (Gutman et al., 2010). The first case in which this was done, *University of California Regents v. Bakke* (1978), banned the use of quotas for preferred groups but declared that race could be used as a

plus factor in selection decisions. A plus factor cannot be the sole factor considered and, instead, can only be considered holding all other factors equal (Gutman et al., 2010). Since *Bakke,* courts have returned conflicting rulings regarding diversity as a compelling interest, but have ultimately supported university admission plans that are narrowly tailored, such as in *Grutter v. Bollinger* (2003). The courts have identified increasing diversity in the context of higher education as a compelling interest due to the potential benefits gained. By examining theories of social identity, we can explain why interactions with diverse others produces these benefits and why college is both the appropriate place and time for these interactions.

Theories of Social Identity

The United States is commonly thought of as a "melting pot" of cultures; however, many of these cultures remain segmented rather than merging as the name suggests. It is common for young individuals to be sheltered from extensive interactions with those outside their own ethnic groups, as many communities still show signs of racial divides (Saenz, 2010). Many young people are not exposed to diverse peers, experiences, and ideas until they attend college (Gurin et al., 2002). Fundamental theoretical support for the benefits of engaging with ethnically diverse individuals can be found in Erikson's (1966) work on the concept of identity. Erikson argued that late adolescence and early adulthood are the times that an individual's concept of personal and social identity are developed, particularly if individuals are given a place and time where they can experiment with social roles. Newcomb's finding that young adults' political and social attitudes were shown to be exceptionally malleable, especially if exposed to ideas and peers that differed from their core background (as cited in Gurin, 1999),

3

supports such assertions. Follow-up studies, conducted 25 and 50 years later, indicated that changes that occur during this period are stable across a lifetime (Gurin, 1999).

Due to the lasting effects of attitude change during the college years, it is important for individuals to have exposure to positive images of other groups; this helps to decrease the negative effects of social categorization, such as stereotyping (Fiske & Neuberg, 1990; Tajfel, 1981). According to a model presented by Fiske and Neuberg (1990), individuals immediately categorize others into groups once sufficient information is presented, and respond accordingly to whatever dominant cognition is activated by that group. If the only exposure an individual has with diverse others comes from outside sources (e.g., the media), it is likely that individuals will rely on stereotypes and caricatures of other races.

During college, individuals may be required to work closely with diverse others for the first time, such as in small groups for class projects. This is an important source of diversity that will be discussed in greater detail below; however, initial research suggests that both negative and positive outcomes can arise from heterogeneous group work. Groups that contain a small number of members that hold dissenting views from the majority can result in increased perspective taking and more divergent thinking, a phenomenon known as minority influence (Nemeth, 1992). Antonio et al. (2004), supporting this line of research, demonstrated that the contributions of a racial minority in a group discussion were perceived as more novel and led to a greater level of perspective taking and complex thinking compared to when a White contributor followed the same script. However, when comparing the performance of heterogeneous and homogenous groups, groups with high cultural diversity (consisting of two or more nationalities)

underperformed compared to culturally homogenous groups (Watson, Kumar, & Michaelsen, 1993). There was a slight reversal of this trend after groups worked together for nine weeks, but only for tasks that required a range of perspectives and the generation of alternative solutions. In similar research, McLeod, Lobel, and Cox (1996) found that heterogeneous groups were better at performing a 15-minute idea generation exercise.

The research on diversity in groups demonstrates that heterogeneous groups can be better performers, specifically at idea generation or perspective taking; however, this increased performance only comes after an additional period of working together. The similarity-attraction paradigm posits that people are attracted to those that they perceive to be similar to themselves (Byrne, 1971). When the similarity-attraction theory is extended to group settings, it suggests that people are more comfortable working with similar others, leading to smoother collaboration styles and increased performance (Pieterse, van Knippenberg, & van Ginkel, 2011). Homogenous groups may be able to work through the stages of small group development suggested by Tuckman (1965) faster than heterogeneous groups, which may explain the delay in performance. Now that we have discussed why interacting with diverse others can lead to benefits, we need to identify what types of benefits can be obtained.

Outcomes of Diversity

When studying the effects of diversity on individuals, research typically focuses on learning outcomes, democracy outcomes, and process outcomes (Gurin, 1999; Milem, 2003). These outcomes are defined in terms of the benefits derived from increased exposure to diversity. Learning outcomes refer to changes that occur in the way that an individual thinks and learns, particularly when encountering novel situations when a

preexisting schema is not available (Gurin, 1999). Learning outcomes also include active thinking skills, intellectual engagement, and academic skills (Gurin et al., 2002). Democracy outcomes refer to the way that students are prepared to be active participants in a diverse society (Milem, 2003). Specifically, democracy outcomes refer to increases in motivation to influence society, awareness of cultural issues, and understanding differences. Core indicators of democracy outcomes include increases in perspective taking, citizenship engagement, racial and cultural understanding, and judgments of compatibility among differing groups (Gurin et al., 2002). Democracy outcomes also include increases in attitudes such as social agency, which is the belief in the importance of working for societal improvement and social justice (Laird, 2005), or behavior such as the participation in democratic processes on campus or voluntary community service (Gurin, 1999; Milem, 2003). Process outcomes reflect the enrichment derived from diversity with regard to the college experience as a whole, such as overall satisfaction and perception of climate (Milem, 2003). Other researchers have examined the effects of diversity on academic self-confidence (Laird, 2005), which could be considered either a process outcome or a learning outcome. The benefits described above are potential outcomes of diversity; however, the type of diversity experienced may predict what types of outcomes are experienced.

Theories of Diversity

Diversity can be defined in a number of ways, the most basic of which is structural diversity. Structural diversity simply refers to the numeric representation of diverse groups (Hurtado, Milem, Clayton-Pedersen & Allen, 1999). Structural diversity can include highly visible demographic differences such as age, race, and gender.

6

In general, researchers have presented longitudinal research examining the effects of meaningful encounters with those outside of one's core ethnic group, with overall positive effects being shown on academic outcomes (Chang 2001; Gurin et al., 2002; Milem, 2003; Umbach & Kuh, 2006). Gurin et al. (2002) posited that, while structural diversity is necessary, it is not sufficient to result in any outcomes, negative or positive, as it does not guarantee any meaningful interactions will occur between diverse peers. For positive interactions to occur, additional types of diversity must be present: classroom and informal-interactional. Classroom diversity refers to the inclusion of content knowledge about diverse groups within courses or other formal settings, and interactions with diverse others within those settings (Gurin et al., 2002). Informational-interactional diversity includes meaningful interactions with diverse others outside of organized settings (Gurin, 1999). The implications of both of these types of diversity are discussed below.

Classroom Diversity

The operational definition of classroom diversity fluctuates across studies. A majority of studies use the number of ethnic courses a participant enrolled in, while others require participants to evaluate the impact of courses. Gurin et al. (2002) compared the findings of two independent studies using a single item as a measure of classroom diversity. One sample, identified as the Michigan Student Sample (MSS), was administered in 1994 and asked participants to report the extent to which courses had exposed them to "information/activities devoted to understanding other racial/ethnic groups and interracial ethnic relationships" (Gurin et al., 2002, p. 343). The second sample, obtained from the Cooperative Institutional Research Program (CIRP) and

administered in 1985 and again in 1989, asked participants to report whether they had

taken a course that had "an important impact on their views of racial/ethnic diversity and

multiculturalism" (Gurin et al., 2002, p. 343). Gottfredson et al. (2008) used three items

to assess classroom diversity to which participants indicated how often they discussed

racial issues, took ethnic studies courses, or attended racial/cultural awareness programs.

Laird (2005) simply asked participants to indicate if they had taken an "ethnic studies

course, a course that involved serving a community in need, or a course that included

activities that encouraged interactions across racial/ethnic groups" (p. 373). A number of

researchers have used an indication of enrollment in an ethnic studies course to provide a

proxy measure of classroom diversity (Chang, 2002; Gurin, 1999; Hurtado, 2001).

However, the conceptual definition of classroom diversity goes beyond simple frequency

of classes and includes an assumption of discourse and interactions with diverse others

within those classes. Studies that only ask participants to report enrollment are either

failing to account for this aspect of classroom diversity or are assuming that ethnic

studies courses inherently attract a diverse group of students.

Regardless of the crude measures typically employed by researchers to assess it,

classroom diversity is often positively associated with a number of learning, democracy,

and process outcomes (Chang, 2002; Gottfredson et al., 2008; Gurin, 1999; Gurin et al.,

2002; Hurtado, Engberg, Ponjuan, Landreman, 2002; Laird, Engberg, Hurtado, 2005).

Such outcomes might include a decrease in racial bias (Milem, 2003), an evolution of

moral and ethical values (Chang, 2001), and increased perceived quality of student

experiences with peers from a diverse background (Laird et al., 2005). Classroom

diversity has been positively related to learning outcomes such as cognitive openness

(Gottfredson et al., 2008) and, in most groups, active thinking and intellectual engagement (Gurin et al, 2002). Democracy outcomes such as racial/cultural engagement and compatibility of differences also were associated with increased classroom diversity (Gurin et al., 2002). Participation in a diversity course was associated with an increased likelihood of voting in state and federal elections (Hurtado, 2005). Chang compared a group of students prior to enrolling in a required diversity course and a group of students after completing the course and found that classroom diversity was associated with lower levels of racial prejudice

Although the pattern is generally positive, not all racial groups seem to benefit equally from classroom diversity. White subgroups have the most consistent pattern of positive results, but African American subgroups occasionally display negative associations with classroom diversity (Bowman, 2010; Gurin et al., 2002). Gurin et al. (2002) found that classroom diversity was negatively associated with academic skills for African Americans. Bowman (2010) found that students of color who had not taken a diversity course experienced higher levels of psychological well-being (as measured by Ryff Scales of Psychological Well-Being; Ryff, 1995) compared to those who had taken one. White students, on the other hand, showed consistent benefits in their psychological well-being, comfort with differences, and appreciation of differences with each additional course (Bowman, 2010). While classroom diversity includes interactions with diverse others within a formal context, informal-interactional diversity includes meaningful interactions within informal contexts.

Informal-Interactional Diversity

Informal-interactional diversity, also referred to as contact diversity, includes the frequency of meaningful interactions with diverse others, many of which likely happen outside of the classroom or organized settings (Gurin et al., 2002). Such encounters may include interactions with individuals in housing, organized campus events, and social activities (Chang, 1999). Similar to classroom diversity, informal-interactional diversity is measured in a variety of ways, and often through proxy variables that do not account for the valence of the interaction. Many researchers create a composite variable by asking participants to indicate the number of roommates, close friends, significant others, etc. that are of a differing demographic. The nature of the relationship of such individuals is presumptively one that allows for meaningful and frequent interactions.

Informal-interactional diversity also has been associated with a number of positive learning and democracy outcomes. Gottfredson et al. (2008) found a positive effect of informal-interactional diversity on cognitive openness, compiled from participants' indications of their contributions to class discussions, frequency of serious conversations with diverse others, and frequency of attending non-required lectures and seminars. Informal-interactional diversity was predictive of increased learning outcomes such as intellectual engagement, academic skills, and active thinking for Whites, African Americans, and Asian Americans (Gurin et al., 2002). Additionally, informal-interactional diversity was associated with democracy outcomes such as increased citizenship engagement, racial/cultural engagement, and compatibility of differences for Whites, African Americans, Asian Americans, and Latinos (Gurin et al., 2002).

Informal-interactional diversity appears to be one of the most powerful predictors of both learning and democracy outcomes, even after controlling for classroom diversity (Gurin et al., 2002). However, as with classroom diversity, informal-interactional diversity seems to have differing effects across races. Antonio (2004) found that students of color experienced larger learning outcome benefits from having a diverse group of close friends than did White students. African American students displayed higher levels of self-confidence and educational aspirations, whereas White students showed lower self-confidence and aspirations when they indicated a more diverse group of close friends. The positive effects on African Americans remained after controlling for background characteristics (i.e., gender, pre-college intellectual self-confidence, socioeconomic status (SES), SAT composite score, and pre-college educational degree aspirations); however, the negative trend for White students was no longer significant. Boisjoly, Duncan, Kremer, Levy, and Eccles (2006) found that White students randomly assigned a Black roommate were more likely to be supportive of affirmative action two to four years after entering college than were White students who had been assigned a White roommate. Gurin et al. (2002) found that White students displayed a consistent benefit from informal-interactional diversity in compatibility of differences and perspective taking, while Asian American and African American students displayed benefits that varied between the MSS and CIRP studies. Overall, both Whites and those of color display benefits of diversity on learning and democratic outcomes, but the benefits were more consistent for Whites. Whereas the research exploring the benefits of cultural diversity in higher education is extensive, not all of the research supports this idea. Below, some of the criticisms with diversity research are discussed.

Conflicting Research

Rothman, Lipset and Nevitte (2002) cited methodological problems stemming from a reliance on self-report as the fundamental reason for the positive association of diversity with increased educational outcomes. Rothman et al. (2002) argued that self-report responses could easily be explained by social desirability and sought an indirect approach to examining the diversity hypothesis by correlating overall college satisfaction with the ratio of non-White students to White students at a predominately White school. Rothman et al. suggested that if the diversity hypothesis was correct, then an increased proportion of non-White students would correlate with increased satisfaction. Results of their study showed little to no benefit of mixed student enrollment; however, Rothman et al. were operating under the assumption of structural diversity only. This basic understanding of diversity does not account for the informal-interactional diversity proposed by Gurin (1999) that expands upon surface diversity to include the frequency and quality of the exchange among the diverse groups.

Now that we have discussed some of the existing literature pertaining to general outcomes that may result from interactions with diverse others, it is important to identify individual factors that may account for attitudes about diversity regardless of the type of interactions experienced.

Individual Factors

Demographic and Precollege Factors

A number of demographic factors predict diversity attitudes without the use of college interactions. Females typically hold more favorable attitudes toward equal employment opportunity, as do older participants, non-Whites, and politically liberal

students (Gottfredson et al., 2008). Kravitz and Platania (1993) also found that females and non-Whites expressed more positive attitudes toward affirmative action. One possible explanation for these more favorable attitudes might be that the issues associated with equal employment opportunities, namely discrimination and harassment, may be more salient to these groups. Rankin and Reason (2005) found that students of color and females were more likely to report experiencing harassment on a college campus.

Precollege environments matter when predicting the tendency for cross-racial interactions and attitudes for racial discrimination; however, these effects are mediated by diversity experiences during college (Sanez, 2010). When considering only precollege environments, White students that experienced predominantly White environments prior to college are less likely to participate in cross-racial interactions. Non-White students that experienced predominately White environments prior to college were the most likely to engage in cross-racial interactions. While demographic and pre-college factors affect attitudes toward diversity, the types of student involvement in which one participated also played a role.

Student Involvement

As would be expected, friendship groups that consist of greater diversity increased the likelihood of interracial interactions, which, in turn, were positively associated with cultural awareness and promoting racial understanding (Antonio, 2001). Importantly, diverse friendships also increased the likelihood of interracial interactions *outside* that friend group. Other student involvement, such as commuting to campus regularly and participating in a Greek organization (i.e., sorority/fraternity) negatively correlated with interracial interaction. Student involvement, such as taking a women's

13

study course, an ethnic studies course, and attending a cultural awareness workshop was initially associated with increased interracial interactions, cultural awareness, and promoting racial understanding; however, this was no longer significant after controlling for background characteristics, friendship group characteristics, and other student involvements (Antonio, 2001).

The previously mentioned individual characteristics (i.e., demographic characteristics, precollege factors, and the type and level of student involvement) all play a role in the perception of a campus climate as it relates to diversity.

<div align="center">**Perceptions of Campus Climate**</div>

How racially biased or fair a campus climate is perceived to be depends on the individual, and often differs by groups. Students of color are more likely to report experiencing harassment that interferes with learning than are White students, and females are more likely than males to report gender harassment (Rankin & Reason, 2005). Chang found that students of color were less satisfied with their college experiences if increased student diversification was not accompanied by multicultural educational programing (as cited in Rankin & Reason, 2005). Similarly, students of color indicated that a required course on race would improve the campus climate; however, White students indicated that such a course would make the climate worse (Rankin & Reason, 2005). Students that perceived the curriculum to have higher integration of diversity-related content were more likely to perceive that their university had achieved a positive campus climate for diversity (Mayhew, Grunwald, & Dey, 2005). This finding was stronger for minority groups and for those who had more knowledge of marginalized groups. Students who had taken more courses related to understanding such groups were

more likely to perceive a positive campus climate (Mayhew et al., 2005). In addition, the less involved students were with campus events, the more likely they were to perceive a positive climate. Interactions with diverse peers prior to college also was predictive of perception of campus climate, however the findings differed by gender (Mayhew et al., 2005). Females who had had more interactions with diverse others prior to college, compared to females who had fewer interactions, were more likely to perceive a positive campus climate for diversity. For males this finding was the opposite; males with more interaction prior to college were less likely to perceive the campus climate as positive. Brown, Clarke, Gortmaker, and Robinson-Keilig (2004) reported a similar finding about other groups that often experience discrimination, the lesbian, gay, bisexual, and transgendered (LGBT) community. Members of the LGBT community perceived the campus community in a more negative light than did heterosexual students, and LGBT students were more knowledgeable and interested in LGBT topics than were other students. Similarly, White students were more likely to perceive their college campus as "welcoming", "improving", or "friendly" than were students of color (Rankin & Reason, 2005).

Experience of campus climate appears to differ by group, with groups who have been historically discriminated against being more likely to display negative perceptions of campus climate. However, White students, particularly those who are less involved with campus events, are more likely to perceive the campus climate as improving with regard to diversity. Part of this discrepancy might be explained by naïve realism, the perception that the way that an individual perceives the world is the truth and that any differing opinion is mistaken or biased (Pronin, Lin, & Ross, 2002). Participants in

Pronin et al.'s (2002) study indicated that they were less susceptible than the average American or the average classmate to personal biases, but not to other flaws such as procrastination. Individuals were resistant to the idea that they also could be biased, even after receiving educational material that described various biases (Pronin et al., 2002). As participants were still willing to admit flaws, responses were less likely to be due to social desirability and more likely to be due to an actual belief in their ability to be unbiased. The unrealistic expectation to remain unbiased sometimes makes an individual's responses about his or her own biases unreliable, and instead, a respondent may be asked to indicate the attitudes of similar others.

Summary of Literature

In summary, the Supreme Court has found increasing diversity to be a compelling interest in the context of higher education due to research linking diversity to higher learning, democracy, and process outcomes (Gutman et al., 2010). In a time when many neighborhoods and communities remain segregated (Saenz, 2010), higher education is the first time many students encounter diverse others (Gurin et al., 2002). If the students are of the traditional age, this encounter takes place during a time when an individual's sense of identity is forming (Erikson, 1966). Structural diversity is necessary but not sufficient for these outcomes to occur; instead, classroom and informal-interactional diversity, resulting in meaningful interactions with diverse others, is required (Gurin et al., 2002). A number of individual factors, including demographics (Gottfredson et al., 2008), precollege factors (Mayhew et al., 2005), and student involvement (Antonio, 2001) are indicative of attitudes toward diversity and how the college campus climate is perceived.

The Current Study

The current study seeks to add to the diversity literature by examining the relationship between informal-interactional diversity and classroom diversity and their relationship to learning and democracy outcomes in a mid-sized university. Gurin et al. (2002), among other researchers (i.e., Gottfredson et al., 2008), found that increased diversity exposure produced beneficial results in both learning and democracy outcomes.

Hypotheses 1a-b: a) Increased classroom diversity and b) increased informal-interactional diversity will result in increased learning outcomes.

Hypotheses 2a-b: a) Increased classroom diversity and b) increased informal-interactional diversity will result in increased democracy outcomes.

Rankin and Reason (2005) found that both students of color and females experienced more discrimination and harassment on college campuses than did white males. Because of these types of experiences, these groups are more likely to perceive a campus diversity climate as negative.

Hypotheses 3a-b: a) Students of color and b) females will express more positive diversity attitudes.

Hypotheses 4a-b: a) Students of color and b) females will perceive the campus diversity climate to be more negative.

Pronin et al. (2002) found that individuals tend to have a blind spot when it comes to personal biases. Accordingly, individuals tend to believe that they are less biased and more fair than those around them.

Hypotheses 5a-b-c: Students will perceive themselves as less biased than a) other students, b) faculty members, or c) administrators.

Method

Campus Diversity Survey Instrument

The WKU Student Campus Diversity Survey (SCDS) was developed to gather information about the campus diversity climate and contained five sections: demographics, campus experiences, experiences with diversity in the classroom, perceptions of campus diversity, and perceptions about one's academic experience (Shoenfelt, 2014). Specifically, the instrument addressed attitudes towards fairness, inclusiveness, equality, sensitivity, and participants' campus experience, including the number of multicultural cultural events attended, experiences in the classroom, and composition of close friends and roommates. The survey also assessed participants' support system, perception of educational outcomes, and overall satisfaction with the university. All responses were indicated on a five-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with the exception of the items that asked participants to report specific numbers. For the demographics portion, students were asked to indicate their sex, race, disability, sexual orientation, religious beliefs, year in school, full or part-time status, area in which they grew up, and major of study. For the purpose of data analysis, ten composites scores were created from relevant items for each of the scale scores.

Composite Variables

Items from the WKU SCDS were combined to create composites to represent measures of perception of campus climate; attitudes toward diversity; perceived

awareness of issues faced by diverse others for self, other students, faculty, and administrators; classroom diversity; informal-interactional diversity; learning outcomes; and democracy outcomes. The items selected for each composite were based on a review of the relevant literature. Items within a composite were averaged, with negatively phrased items reverse coded (see Appendices A-J).

The perception of campus climate scale is based on 23 items ($\alpha = .92$) that include personal experiences of being excluded or made to feel uncomfortable due to a specific characteristic, as well as more general items targeting perceived fairness toward diverse others in classes. For a detailed listing of the items included, see Appendix A.

Attitudes toward diversity is based on 15 items ($\alpha = .87$) that include general attitudes of the degree of conflict diversity causes, self-reported ease of interacting with diverse others, and the desire to interact with diverse others. For a detailed listing of the items included, see Appendix B.

The measures of awareness of issues faced by diverse others for other students, faculty, and administrators are each comprised of six items ($\alpha = .85$; $\alpha = .88$; $\alpha = .90$, respectively) which include specifically asking about the degree of awareness that group has for different races, religions, genders, sexual orientations, and disabilities, as well as a general awareness question. For a specific listing of these items, see Appendices C-E, respectively. The measure of awareness of issues faced by diverse others for the self is comprised of five items ($\alpha = .88$) which ask about the degree of awareness that the individual has for different races, religions, genders, sexual orientations, and disabilities. See Appendix F for a complete listing of these items.

The measure of classroom diversity is comprised of 10 items ($\alpha = .79$) that specifically ask about interactions with diverse others within a classroom or organized setting on campus as well as content knowledge about diverse others. The items included in this composite are based on the research of Gottfredson et al. (2008) and Gurin et al. (2002). For a complete listing of the items included, see Appendix G.

The measure of informal-interactional diversity is comprised of seven items ($\alpha = .55$) that reflect the number of roommates and close friends that are comprised of diverse others and quality time spent with diverse others on campus. The items included in this composite are based on the research of Antonio (2004) and Gurin et al. (2002). For a complete listing of the items included, see Appendix H.

Based upon previous research completed by Gurin (1999) and Gurin et al. (2002), the measure of learning outcomes is comprised of 10 items ($\alpha = .79$) that assess an individual's academic skills, interest in learning about diverse others, and change in diversity views due to interactions with diverse others. See Appendix I for a complete listing of the items included.

Based on previous research completed by Gurin (1999), Laird (2005), and Milem (2003), the measure of democracy outcomes is comprised of 13 items ($\alpha = .76$) which assess an individual's participation in community service, campus politics, cultural understanding, and judgment of compatibility among groups. For a complete listing of the items included, see Appendix J.

Participants

Participants completed a campus-wide survey administered via student email during the spring semester of 2014. Estimated enrollment at the time of administration

was 19,000 students. Initial responses were collected from 1,276 students who logged

into the survey; however, only 863 full-time students completed all items and were

included in analyses. Integrity check items were included to ensure the quality of data

and instructed students to carefully read question stems and select a specific response. If

a student failed one of these items, the student could opt to continue with the survey or to

drop out. A total of 321 students opted to drop out after failing at least one integrity check

item. An additional 92 students were excluded for their status as part-time students. The

final response rate of completed surveys was 863, approximately 5% of the enrolled

students (588 female, 275 male; M_{age} = 22.24; 705 Caucasian, 80 African American, and

78 non-Black minority).

Results

Hypotheses 1 a-b, that (a) increased classroom diversity and (b) increased

informal-interactional diversity will result in increased learning outcomes, were tested

using bivariate correlations and using a multiple regression to examine the combined

predictive power of classroom and informal-interactional diversity on learning outcomes.

Both hypothesis 1a and hypothesis 1b were supported by the results. Increased classroom

diversity was found to be related to increased learning outcomes, $r(861) = .57, p < .001$.

Similarly, increased informal-interactional diversity was also found to be related to

increased learning outcomes, $r(861) = .19, p < .001$. Classroom diversity and informal-

interactional diversity combined provided an increased measure of exposure to diversity

and prediction of learning outcomes. Results of the multiple regression analysis

suggested that both predictors explained approximately 33% of the variance, $R^2 = .33$,

$F(2, 862) = 215.74$, $p < .001$. Classroom diversity predicted increased learning outcomes ($\beta = .557$, $p < .001$), as did informal-interactional diversity ($\beta = .082$, $p < .05$).

Hypotheses 2a-b, that (a) increased classroom diversity and (b) increased informal-interactional diversity will result in increased democracy outcomes, were tested using bivariate correlations and multiple regression to examine the combined predictive power of classroom and informal-interactional diversity on democracy outcomes. Both hypothesis 2a and hypothesis 2b were supported by the results. Increased classroom diversity was found to be related to increased democracy outcomes, $r(861) = .473$, $p < .001$. Similarly, increased informal-interactional diversity also was found to be related to increased democracy outcomes, $r(861) = .319$, $p < .001$. Classroom diversity and informal-interactional diversity combined provided an increased measure of exposure to diversity and prediction of democracy outcomes. Results of multiple regression analysis suggested that both predictors explained approximately 28% of the variance, $R^2 = .28$, $F(2, 862) = 166.36$, $p < .001$. Classroom diversity predicted increased learning outcomes ($\beta = .429$, $p < .001$), as did informal-interactional diversity ($\beta = .239$, $p < .001$).

If the data are grouped by race in order to further examine the predictive power of increased diversity on learning and democracy outcomes, a slightly different pattern emerges for Whites compared to Blacks and non-Black minorities. For all groups, increased classroom diversity was significantly correlated with both learning and democracy outcomes. However, only Whites showed a significant relationship with increased informal-interactional diversity. Additionally, the occurrence of classroom diversity and informal-interactional diversity differed by race. There were no significant differences in the occurrence of classroom diversity, $F(2, 862) = 1.60$, $p > .05$. However,

there were differences in the occurrence of informal-interactional diversity, $F(2, 862) =$ 25.09, $p < .001$, $\eta^2 = 18.14$. Non-Black minorities ($M = 2.27$, $SD = .74$) experienced significantly more informal-interactional diversity than either Whites ($M = 1.64$, $SD = .77$) or Blacks ($M = 1.79$, $SD = .76$), $p < .001$. There was no significant difference between Whites and Blacks on occurrence of informal-interactional diversity, $p > .05$. See Table 1 for specific correlations pertaining to the type of diversity as it related to the different outcomes.

Table 1

Correlations for Types of Diversity Interactions on Outcomes by Race

Race	Diversity Type	Learning Outcomes	Democracy Outcomes	n
Whites	Classroom Diversity	.574**	.487**	705
	Informal-Interactional Diversity	.198**	.346**	
Blacks	Classroom Diversity	.497**	.294*	80
	Informal-Interactional Diversity	.074	.05	
Other	Classroom Diversity	.638**	.528**	78
	Informal-Interactional Diversity	.049	.192	

Notes. Other race includes all participants who identified as minorities other than Blacks.

* $p < .05$; ** $p < .001$.

      Hypotheses 3a-b, that (a) students of color and (b) females will express more positive attitudes concerning diversity, were tested by examining the differences in means using a one-way ANOVA and Bonferroni post hoc tests, with higher means indicating more positive attitudes. Hypothesis 3a was partially supported and hypothesis 3b was

fully supported by the results. A main effect for race was found between Whites, Blacks, and non-Black minorities for diversity attitudes, $F(2,862) = 7.53$, $p < .05$, $\eta^2 = 0.02$. Whites ($M = 4.09$, $SD = .54$) held significantly lower attitudes toward diversity compared to Blacks ($M = 4.29$, $SD = .40$), but were not significantly different from other minorities ($M = 4.23$, $SD = .43$). Non-Black minorities were not significantly different from either Whites or Blacks on diversity attitudes, $p > .05$. A one-way ANOVA was used to compare differences for attitudes toward diversity by sex. A main effect of sex was found for diversity attitudes, $F(1,862) = 12.83$, $p < .00$, $\eta^2 = 0.01$. Females ($M = 4.17$, $SD = .50$) were found to have significantly more positive attitudes toward diversity than were males ($M = 4.03$, $SD = .56$).

Hypotheses 4a-b, that (a) students of color and (b) females will perceive the campus climate to be more negative concerning diversity, were tested by examining the differences in means using a one-way ANOVA and Bonferroni post hoc tests, with lower means indicating a negative campus climate. Hypothesis 4a was supported by the results, but hypothesis 4b was not supported. A main effect for race was found between Whites, Blacks, and non-Black minorities for perception of campus climate, $F(2,862) = 9.92$, $p < .001$, $\eta^2 = 0.02$. Whites ($M = 4.05$, $SD = .56$) perceived the climate as significantly more positive than did Blacks ($M = 3.86$, $SD = .65$) and non-Black minorities ($M = 3.78$, $SD = .69$). Non-Black minorities were not significantly different from Blacks on perceptions of campus climate, $p > .05$. A one-way ANOVA was used to compare perceptions of campus climate based on sex. There was no main effect for sex for perception of campus climate, $F(1,862) = 1.54$, $p > .05$.

Hypotheses 5a-b-c, that students will perceive themselves as more aware of issues faced by diverse others, and thus less biased than (a) other students, (b) faculty, and (c) administrative personnel, were tested using a series of paired *t*-tests to compare how the individual perceived him or herself compared to how he or she perceived the other two groups. Hypothesis 5a, hypothesis 5b, and hypothesis 5c were all supported by the results. Individuals reported that they perceived themselves ($M = 4.05$, $SD = .66$) as significantly more aware of issues than other students ($M = 3.17$, $SD = .71$), $t(862) = 29.00$, $p < .001$, $d = 1.28$, faculty ($M = 3.72$, $SD = .66$), $t(862) = 12.14$, $p < .001$, $d = .49$, and administrators ($M = 3.61$, $SD = .74$), $t(862) = 14.51$, $p < .001$, $d = .63$.

Discussion

The purpose of this project was to examine the diversity climate at a midsized, southeastern university from the perspective of full-time students, while also identifying the potential benefits of increased exposure to diversity.

Hypothesis 1a and hypothesis 1b, that (a) increased classroom diversity and (b) increased informal-interactional diversity would result in increased learning outcomes, were both supported by the results. Similarly, hypothesis 2a and hypothesis 2b, that (a) increased classroom diversity and (b) increased informal-interactional diversity would result in increased democracy outcomes, were both supported by the results. These results mirror those found by Gurin (1999), Gurin et al. (2002), Laird (2005), and Milem (2003), among other researchers. Throughout the previous research, positive learning and democracy outcomes have been identified for both Whites and those of color. However, these benefits are more consistent for White students, with students of color occasionally displaying negative outcomes associated with increased classroom diversity, and

inconsistent benefits with informal-interactional diversity (Gurin et al., 2002). Although the benefits were inconsistent for students of color, informal-interactional diversity was found to be one of the most powerful predictors for learning and democracy outcomes (Gurin et al., 2002). Similarly, Antonio (2004) found that informal-interactional produced larger learning outcomes for students of color than White students.

The results of the current study also revealed a different pattern of results for different races, specifically with regard to informal-interactional diversity. White students consistently showed increased learning and democracy outcomes when they experienced increased informal-interactional and classroom diversity, but only classroom diversity was linked to an increase in either outcome for Black and non-Black minority students. The current study, unlike previous research, shows classroom diversity as the more powerful predictor of both learning and democracy outcomes for all students. This discrepancy may be due to the nature of the informal-interactional diversity measure used in the current study, which included a variety of activities that do not inherently go together, resulting in a relatively low alpha for the measure. As there was no significant difference in the occurrence of informal-interactional diversity between Blacks and Whites, this is unlikely to be due to the actual rate of exposure to diversity. What seems more likely is that the quality of interactions with diverse others may differ for Black and White students outside of the classroom. Considering the racial demographics of the student population in question (i.e., predominately White), the interactions that White students have with diverse others may be more novel and thus have a larger lasting impact on attitudes and perceptions. Black students, on the other hand, are likely surrounded by White students such that those interactions may not be as notable.

However, classroom diversity was beneficial for all races, possibly due to the guided nature of interactions during class via the instructor resulting in quality interactions for all. Considering the nature of informal-interactional diversity is one that is hard to cultivate (as it is inherently informal), the current study provides encouragement for universities to continue to foster increased diversity interactions within the classroom.

Hypothesis 3a, that students of color would express more positive attitudes concerning diversity, was partially supported, whereas hypothesis 3b, that females would express more positive attitudes concerning diversity, was supported. Blacks held significantly more positive attitudes toward diversity than did Whites; there was no difference in attitudes for non-Black minorities compared to Whites or Blacks. This may be due to the melting pot of cultures combined in the non-Black minority category, making any differences hard to discern. The current study findings correspond with those of Gottfredson et al. (2008) and Kravitz and Platania (1993), who also found that female and students of color expressed more positive attitudes toward diversity. However, although there was a significant difference for race and sex in the current study, it may not be practically significant as the effect size was very small for both.

Hypothesis 4a, that students of color would perceive the campus climate to be more negative concerning diversity, was supported by the current study. Whites perceived the campus climate to be more supportive toward diversity than did either Blacks or non-Black minorities. This finding might reflect subtle racism experienced by these groups as Rankin and Reason (2005) found that minorities were more likely to report harassment on college campuses than White students. However, with regard to the current study, the effect size for this finding was very small, making it hard to argue for

practical significance. Hypothesis 4b, that females would perceive the campus climate to be more negative concerning diversity, was not supported by the current study. This likely reflects a campus climate that is accepting of female students.

Hypothesis 5a-b-c, that students will perceive themselves as more aware of issues faced by diverse others and thus less biased than (a) other students, (b) faculty, and (c) administrative personnel, were supported by the current study. Students indicated that they were more aware of issues faced by diverse others than any of the other three comparison groups. This finding can be linked to Pronin et al.'s (2002) findings, in which participants claimed to be less biased than their peers. Whereas social desirability may explain some of the current results, the results indicate that students genuinely feel that they are less biased. This perception of one's self as less biased than others is due to the individual's desire to see him or herself in the best possible way, a dynamic function of maintaining one's self-esteem (Crocker & Park, 2004). This perception that one is less biased than others is likely flawed, and a more realistic indication of bias is likely gained by examining the perceived bias of a similar group (i.e. other students). By examining the perception of bias within the other groups (e.g., other students, faculty, and administration), researchers can gain a more realistic measure of bias present within the population while bypassing the desire to view oneself in a more desirable manner.

The current study has limitations including the response rate and a reliance upon self-report data. Although the response rate was low, the respondents were proportionately representative of student body demographics; however, the students that did not participate may have differed in some way from those that did. It also is possible that a higher response rate would have provided increased power for the analyses

conducted in the current study. In the current study, informal-interactional diversity was not found to have an effect on learning and democracy outcomes for Blacks and non-Black minorities. However, this may be due to the smaller sample size for these groups, and increased power may have allowed differences to be detected. Finally, a reliance on self-report data is common but not ideal, exemplified by the social desirability bias previously mentioned; however, the broad nature of the current study is most feasible when self-report data are used.

In future studies examining the outcomes of diversity, it would be beneficial to obtain longitudinal data so that a comparison could be made after long-term exposure to diversity. It also would be interesting to see if differences exist between part- and full-time students, as full time students are much more likely to experience informal-interactional diversity. Additionally, a follow-up analysis to explore why informal-interactional diversity benefits differed for different races would be beneficial to the literature.

Overall, the current study provided increased evidence for the potential benefits of increased diversity in a university setting. Whereas the effect sizes were not always large, the findings were significant. These findings should guide universities in their decisions on what classes to offer and inform administrators on how the perception of campus climate differs by groups.

References

Antonio, A. L. (2001). Diversity and the influence of friendship groups in college. *The Review of Higher Education, 25*, 63-89. doi:10.1353/rhe.2001.0013

Antonio, A. L. (2004). The influence of friendship groups on intellectual self-confidence and educational aspirations in college. *The Journal of Higher Education, 75*, 446-471. doi:10.1353/jhe.2004.0019

Antonio, A. L., Chang, M. J., Hakuta, K., Kenny, D. A., Levin, S., & Milem, J. F. (2004). Effects of racial diversity on complex thinking in college students. *Psychological Science, 15*, 507-510. doi:10.1111/j.0956-7976.2004.00710.x

Boisjoly, J., Duncan, G. J., Kremer, M., Levy, D. M., & Eccles, J. (2006). Empathy or antipathy? The impact of diversity. *American Economic Review, 96*, 1890–1905. doi:10.1257/aer.96.5.1890

Bowman, N. A. (2010). College diversity experiences and cognitive development: A meta-analysis. *Review of Educational Research, 80*, 4-33. doi:10.3102/0034654309352495

Brown, R. D., Clarke, B., Gortmaker, V., & Robinson-Keilig, R. (2004). Assessing the campus climate for gay, lesbian, bisexual, and transgender (GLBT) students using a multiple perspectives approach. *Journal of College Student Development, 45*, 8-26. doi:10.1353/csd.2004.0003

Byrne, D. E. (1971). *The attraction paradigm*. New York: Academic.

Chang, M. J. (1999). Does racial diversity matter? The educational impact of a racially diverse undergraduate population. *Journal of College Student Development*, *40*, 377-395.

Chang, M. J. (2001). The positive educational effects of racial diversity on campus. In G. Orfield, (Ed.), *Diversity challenged: Evidence on the impact of affirmative action* (pp. 175-186). Cambridge: Harvard Education Publishing Group.

Chang, M. J. (2002). The impact of an undergraduate diversity course requirement on students' racial views and attitudes. *The Journal of General Education, 51*, 21-42. doi: 10.1353/jge.2002.0002

Crocker, J., & Park, L. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392-414. doi: 10.1037/0033-2909.130.3.392

Erikson, E. H. (1966). The concept of identity in race relations: Notes and queries. *Daedalus*, 145-171.

Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category―based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in Experimental Social Psychology, 23*, 1-74. doi:10.1016/s0065-2601(08)60317-2

Gottfredson, N. C., Panter, A. T., Daye, C. E., Allen, W. A., Wightman, L. F., & Deo, M. E. (2008). Does diversity at undergraduate institutions influence student outcomes? *Journal of Diversity in Higher Education, 1*, 80-94. doi:10.1037/1938-8926.1.2.80

Grutter v. Bollinger (2003) 539 US 306

Gurin, P. (1999). Expert report of Patricia Gurin. *Equity & Excellence in Education, 32*, 36-62. doi:10.1080/1066568990320207

Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review, 72*, 330-367.

Gurin, P., Nagda, B. R. A., & Lopez, G. E. (2004). The benefits of diversity in education for democratic citizenship. *Journal of Social Issues, 60*, 17-34. doi:10.1111/j.0022-4537.2004.00097.x

Gutman, A., Koppes, L. L., & Vodanovich, S. J. (2010). *EEO law and personnel practices* (3rd ed.). New York: Psychology Press.

Hurtado, S. (2001). Linking diversity and educational purpose: How diversity affects the classroom environment and student development. In G. Orfield, (Ed.), *Diversity challenged: Evidence on the impact of affirmative action* (pp. 187-203). Cambridge: Harvard Education Publishing Group.

Hurtado, S. (2005). The next generation of diversity and intergroup relations research. *Journal of Social Issues, 61*, 595-610. doi:10.1111/j.1540-4560.2005.00422.x

Hurtado, S., Engberg, M. E., Ponjuan, L., & Landreman, L. (2002). Students' precollege preparation for participation in a diverse democracy. *Research in Higher Education, 43*, 163-186. doi:10.1023/a:1014467607253

Hurtado, S., Milem, J., Clayton-Pedersen, A., & Allen, W. (1999). *Enacting diverse learning environments: Improving the climate for racial/ethnic diversity in higher education*. Washington, DC: George Washington University Graduate School of Education and Human Development.

Kravitz, D., & Platania, J. (1993). Attitudes and beliefs about affirmative actions: Effects of target and of respondent sex and ethnicity. *Journal of Applied Psychology, 78*, 928-938. doi:10.1037/0021-9010.78.6.928

Laird, T. F. N. (2005). College students' experiences with diversity and their effects on academic self-confidence, social agency, and disposition toward critical thinking. *Research in Higher Education, 46*, 365-387. doi:10.1007/s11162-005-2966-1

Laird, T. F. N., Engberg, M. E., & Hurtado, S. (2005). Modeling accentuation effects: Enrolling in a diversity course and the importance of social action engagement. *The Journal of Higher Education, 76*, 448-476. doi:10.1353/jhe.2005.0028

Mayhew, M. J., Grunwald, H. E., & Dey, E. L. (2005). Curriculum matters: Creating a positive climate for diversity from the student perspective. *Research in Higher Education, 46*, 389-412. doi:10.1007/s11162-005-2967-0

McLeod, P. L., Lobel, S. A., & Cox, T. H. (1996). Ethnic diversity and creativity in small groups. *Small Group Research, 27*, 248-264. doi:10.1177/1046496496272003

Milem, J. F. (2003). The educational benefits of diversity: Evidence from multiple sectors. In M. Chang, D. Witt, J. Jones, & K. Hakuta (Eds.), *Compelling interest: Examining the evidence on racial dynamics in higher education* (pp. 126-169). Stanford, CA: Stanford, University Press.

Nemeth, C. J. (1992). Minority dissent as a stimulant to group performance. In S. Worchel, W. Wood, & J.A. Simpson (Eds.), *Group process and productivity (*pp. 95-111). Newbury Park, CA: Sage.

Pieterse, A., van Knippenberg, D., & van Ginkel, W. P. (2011). Diversity in goal
orientation, team reflexivity, and team performance. *Organizational Behavior and
Human Decision Processes, 114*, 153-164. doi:10.1016/j.obhdp.2010.11.003

Pronin, E., Lin, D. Y., & Ross, L. (2002). The bias blind spot: Perceptions of bias in self
versus others. *Personality and Social Psychology Bulletin, 28*, 369-381.
doi:10.1177/0146167202286008

Rankin, S. R., & Reason, R. D. (2005). Differing perceptions: How students of color and
white students perceive campus climate for underrepresented groups. *Journal of
College Student Development, 46*, 43-61. doi:10.1353/csd.2005.0008

Regents of University of California v. Bakke (1978) 438 US 265

Rothman, S., Lipset, S. M., & Nevitte, N. (2002). Diversity and affirmative action: The
state of campus opinion. *Academic Questions, 15*(4), 52-66. doi:10.1007/s12129-
002-1045-8

Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in
Psychological Science*, *4*(4), 99-104. doi:10.1111/1467-8721.ep10772395

Saenz, V. B. (2010). Breaking the segregation cycle: Examining students' precollege
racial environments and college diversity experiences. *The Review of Higher
Education, 34*, 1-37. doi: 10.1353/rhe.2010.0000

Shoenfelt, E. L. (2014) *Report on the WKU Student Campus Diversity Survey*. Technical
report prepared for the WKU Chief Diversity Officer/Vice Provost, Western
Kentucky University, Bowling Green, KY.

Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*.
Cambridge: Cambridge University Press

Toossi, M. (2002). A century of change: The U.S. labor force, 1950-2050. *Monthly Labor Review, 125,* 15-28.

Tuckman, B. W. (1965). Developmental sequences in small groups. *Psychological Bulletin, 63,* 384-399. doi:10.1037/h0022100

Umbach, P. D., & Kuh, G. D. (2006). Student experiences with diversity at liberal arts colleges: Another claim for distinctiveness. *Journal of Higher Education*, *77,* 169-192. doi:10.1353/jhe.2006.0008

Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal, 36*, 590-602. doi: 10.2307/256593

Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, *20*, 77-140.

APPENDIX A: DIVERSITY CLIMATE

Item	Mean	Std. Deviation
In classes at WKU, the class atmosphere is helpful for learning for diverse students.	3.76	.92
In classes at WKU, instructors are fair to students from all diversity backgrounds.	4.09	.87
At WKU, campus diversity is an issue that no longer needs to be addressed.	2.20	1.12
I have been excluded from activities at WKU because of my race/ethnicity.*	4.51	.82
I have been excluded from activities at WKU because of my sex (male, female).*	4.44	.90
I have been excluded from activities at WKU because of my sexual orientation (heterosexual, LGBT).*	4.57	.75
I have been excluded from activities at WKU because of my religion.*	4.51	.79
I have been excluded from activities at WKU because of my disability.*	4.62	.69
I have been excluded from activities at WKU because of my race/ethnicity.*	4.23	1.10
I have felt uncomfortable at activities at WKU because of my sex (male, female).*	4.31	.99
I have felt uncomfortable at activities at WKU because of my sexual orientation (heterosexual, LGBT).*	4.39	.96
I have felt uncomfortable at activities at WKU because of my religion.*	4.19	1.07
I have felt uncomfortable at activities at WKU because of my disability.*	4.35	.77
At WKU, students are treated unfairly because of race/ethnicity.*	3.67	1.21
At WKU, students are treated unfairly because of sex (male, female).*	3.88	1.11
At WKU, students are treated unfairly because of sexual orientation (heterosexual, LGBT).*	3.63	1.23
At WKU, students are treated unfairly because of religion.*	3.73	1.14
At WKU, students are treated unfairly because of a disability.*	3.80	1.17
WKU Faculty/instructors are insensitive to diversity issues.*	3.85	.96
WKU Staff are insensitive to diversity issues.*	3.84	.94
WKU Administrators (deans, vice-presidents, etc.) are insensitive to diversity issues.*	3.78	1.04
WKU Students are insensitive to diversity issues.*	3.41	1.10
Overall I am satisfied with my experience at WKU.	4.21	.87

N = 863. * indicates responses were reverse coded

APPENDIX B: DIVERSITY ATTITUDE

Item	Mean	Std. Deviation
Talking about diversity issues draws attention to differences between groups and causes more problems than it solves.*	3.61	1.18
Differences such as race, gender, sexual orientation, religion, and disability should not cause issues between groups.	4.26	.79
Experience with diverse individuals promotes a common understanding.	4.40	.66
Experience with diverse individuals promotes conflict.*	3.64	1.07
Individuals from different diversity groups should be able to get along.	4.43	.68
Individuals from minority groups bring up issues from the past that are no longer relevant.*	3.49	1.20
I am comfortable in social situations with individuals from diverse backgrounds.	4.22	.79
In classes at WKU, it is important to hear from other students who are different from me.	4.30	.74
I enjoy learning about different groups	4.31	.72
I am interested in learning more about individuals and groups that are different from me.	4.20	.82
I enjoy hearing from people who are different from me.	4.44	.67
Individuals who are different from me have valuable insights I can learn from.	4.46	.65
It is a positive experience to work with students from different backgrounds.	4.39	.72
While at WKU, I would like to have had more exposure to diverse peers.	3.77	.97
I am able to learn equally well from diverse faculty/instructors.	3.90	1.04

N = 863. * indicates responses were reverse coded

APPENDIX C: AWARENESS OF ISSUES, OTHER STUDENTS

Item	Mean	Std. Deviation
Other students on campus are aware of issues faced by individuals of different races/ethnicities.	3.19	.89
Other students on campus are aware of issues faced by individuals of different religions.	3.03	.86
Other students on campus are aware of issues faced by individuals of different sexes (males, females).	3.26	.86
Other students on campus are aware of issues faced by individuals of different sexual orientations (heterosexual, LGBT).	3.07	.98
Other students on campus are aware of issues faced by individuals with disabilities.	3.07	.95
WKU Students are insensitive to diversity issues.*	3.41	1.10

N = 863. * indicates responses were reverse coded

APPENDIX D: AWARENESS OF ISSUES, FACULTY

Item	Mean	Std. Deviation
WKU Faculty/instructors are aware of issues faced by individuals of different races/ethnicities.	3.76	.83
WKU Faculty/instructors are aware of issues faced by individuals of different religions.	3.65	.84
WKU Faculty/instructors are aware of issues faced by individuals of different sexes (male, female).	3.77	.80
WKU Faculty/instructors are aware of issues faced by individuals of different sexual orientations (heterosexual, LGBT).	3.56	.90
WKU Faculty/instructors are aware of issues faced by individuals with disabilities.	3.76	.88
WKU Faculty/instructors are insensitive to diversity issues.*	3.85	.96

N = 863. * indicates responses were reverse coded

APPENDIX E: AWARENESS OF ISSUES, ADMINISTRATORS

Item	Mean	Std. Deviation
WKU Administrators (deans, vice-presidents, etc.) are aware of issues faced by individuals of different races/ethnicities.	3.61	.90
WKU Administrators (deans, vice-presidents, etc.) are aware of issues faced by individuals of different religions.	3.55	.84
WKU Administrators (deans, vice-presidents, etc.) are aware of issues faced by individuals of different sexes (males, females).	3.63	.83
WKU Administrators (deans, vice-presidents, etc.) are aware of issues faced by individuals of different sexual orientations (heterosexual, LGBT).	3.42	.94
WKU Administrators (deans, vice-presidents, etc.) are aware of issues faced by individuals with disabilities.	3.65	.90
WKU Administrators (deans, vice-presidents, etc.) at WKU are insensitive to diversity issues.*	3.78	1.04

N = 863. * indicates responses were reverse coded

APPENDIX F: AWARENESS OF ISSUES, SELF

Item	Mean	Std. Deviation
I am aware of issued faced by individuals of different races/ethnicities.	4.10	.73
I am aware of issued faced by individuals of different religions.	3.98	.84
I am aware of issued faced by individuals of different sexes (males, females).	4.11	.71
I am aware of issued faced by individuals of different sexual orientations (heterosexual, LGBT).	4.05	.86
I am aware of issued faced by individuals with disabilities.	4.03	.88

N = 863.

APPENDIX G: CLASSROOM DIVERSITY

Item	Mean	Std. Deviation
How many multicultural events did you attend last semester?	1.27	1.47
How many workshops on diversity have you attended while a WKU student?	.68	1.27
In classes at WKU, I learned specific knowledge about other groups.	3.83	.98
In classes at WKU, I have had diverse students in my classes.	4.16	.86
In classes at WKU, I have meaningful experiences with diverse students.	3.85	.97
In classes at WKU, students address ethical issues.	3.60	1.03
In classes at WKU, students address racial issues.	3.48	1.08
In classes at WKU, I have interacted with diverse faculty/instructors.	4.06	.93
In classes at WKU, course content emphasizes contributions to the field by people from diverse backgrounds.	3.61	1.02
In classes at WKU, I have been exposed to information devoted to understanding other diversity groups.	3.79	.98

N = 863.

APPENDIX H: INFORMAL-INTERACTIONAL DIVERSITY

Item	Mean	Std. Deviation
How many of your WKU roommates have been a different race/ethnicity than you?	.55	1.12
How many of your closest six friends are the same race/ethnicity that you are?*	1.78	1.90
How many of your closest six friends are the same sex that you are?*	2.10	1.52
How many of your closest six friends are the same sexual orientation that you are?*	1.04	1.64
How many of your closest six friends are the same religion that you are?*	2.53	2.01
How many of your closest six friends have a disability?	.38	.87
I spend quality time with others on campus who are different from me.	3.58	1.12

N = 863. * indicates responses were reverse coded

APPENDIX I: LEARNING OUTCOMES

Item	Mean	Std. Deviation
In classes at WKU, it is important to hear from other students who are different from me.	4.30	.74
I enjoy learning about different groups	4.31	.72
I am interested in learning more about individuals and groups that are different from me.	4.20	.82
I enjoy hearing from people who are different from me.	4.44	.67
Individuals who are different from me have valuable insights I can learn from.	4.46	.65
I have taken a course at WKU that impacted my views on diversity.	3.57	1.24
My views on diversity have changed because of experiences in classes at WKU.	3.28	1.19
My views on diversity have changed because of experiences outside of classes at WKU.	3.69	1.12
I am pleased with my academic performance.	4.10	.89
I am confident I will succeed academically at WKU.	4.40	.71

N = 863.

APPENDIX J: DEMOCRACY OUTCOMES

Item	Mean	Std. Deviation
At WKU, I have developed the skills necessary to work effectively with diverse individuals.	4.00	.82
At WKU, I have engaged in community service specifically to help others from different backgrounds/cultures than my own.	3.24	1.32
At WKU, I have participated in campus politics	2.10	1.15
At WKU, I have participated in a student organization promoting an under-represented group.	2.47	1.34
At WKU, I have participated in activities to help promote diversity understanding	2.85	1.36
At WKU, I have been a member of a group that that reaches out to the community to promote diversity.	2.68	1.32
I am comfortable in social situations with individuals from diverse backgrounds	4.22	.79
Talking about diversity issues draws attention to differences between groups and causes more problems than it solves.*	3.61	1.18
Differences such as race, gender, sexual orientation, religion, and disability should not cause issues between groups	4.26	.79
Experience with diverse individuals promotes a common understanding.	4.40	.66
Experience with diverse individuals promotes conflict.*	3.64	1.07
Individuals from different diversity groups should be able to get along.	4.43	.68
Individuals from minority groups bring up issues from the past that are no longer relevant.*	3.49	1.20

N = 863. * indicates responses were reverse coded