A SPACE PROVIDED TO LISTEN: AN INTERVIEW STUDY OF AFRICAN AMERICAN
AND LATINO ALUMNI OF AGRICULTURE STEM PROGRAMS

by

JOHNELLA J. HOLMES

B.S., Fort Hays State University, 1998
M.S., Fort Hays State University, 1999
M.S., Fort Hays State University, 2001

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Special Education, Counseling, and Student Affairs
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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Abstract

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Critical Race Theory was the framework used for the analysis and the interpretation of the data in this study. The data consisted of interview transcripts, timeline, documents, photographs, and e-mail conversations. Communicating the findings in qualitative interview studies is the result of constructing the experiences and meanings of events through the eyes of the participants in a manner that portrays a representation of their experiences. Each participant's counter narratives were created to highlight salient patterns reflected in their experiences. The writing around the participants' experiences, and the interrogation of data allowed for the identification of patterns that were consistent with each participant's stories and their individual unique details. The findings revealed: (a) ethnic minority students want faculty and administrators who looked like them because having someone to understand their experiences as

people of color in PWI is needed; (b) the need for organizations that support ethnic minority student academic and social success, which in turn helps to create a sense of belongingness and a more inclusive campus climate; (c) more overall faculty support in and out of the classroom; and (d) opportunities for involvement in faculty-led research projects.

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Dedication

This is dedicated in memory of my daddy, John Wesley Holmes and momma, LuElla Elizabeth Williams Holmes, you were the first to love me, believe in me, and support me. I pray I have made you proud!

Chapter 1 - Introduction

Across the country and including the Midwest, lower graduation rates for African

American and Latino students continue to be a major concern for higher education researchers,

policy makers, and student affairs practitioners (Hurtado, 2007; Tinto, 1993, 2006). Being an

African American or Latino student poses many challenges at predominantly White colleges and

universities (Harper, 2009; Harper & Associates, 2014; Harper & Quaye, 2009; Hurtado, 2000;

Rendón, Garcia, & Person, 2004). To understand these challenges one must understand the

historical struggles of these two groups of people.

African Americans and Latinos have suffered injustices at the hands of the U. S.

government and legislation for centuries (Feagin & Feagin, 2011). Africans were captured from

their native lands and were forced into slavery, considered property, and often listed on the same

roster as livestock, until the 1865 Emancipation (Feagin & Feagin, 2011). Throughout history in

the U. S., African Americans (persons of Black African descent) and Latinos (persons whose

national origins are in the countries of Mexico and Latin America) have endured powerful

prejudices, institutionalized oppression, social struggles, discrimination, property loss and loss of

rights, segregation, racism, xenophobic and prejudicial feelings, and immigration enforcement

(DuBois, 1903; Espinoza-Herold, 2003; Feagin & Feagin, 2011; Freire, 2005; Harper & Quaye,

2009; Ladson-Billings & Tate, 1995; Lindsey, Robins, & Terrell, 2003). African Americans and

Latinos found themselves forced into biculturalism if they wanted to maintain portions of their

heritage and culture, yet exist in a new environment (Feagin & Feagin, 2011).

For African Americans and Latinos, institutional, procedural, and personal racism has

have adversely affected their opportunities (Espinoza-Herold, 2003; Lipsitz, 2006; McClaren,

2002). African Americans and Latinos were often separated from meaningful opportunities by de

facto segregation that persisted until the late 1960s. Among those valued opportunities was the denial of access to quality and equal education by African Americans and Latinos (Banks & Banks, 2005; Lipsitz, 2006). Harvey, Harvey, and King (2004) indicated that the struggle for equity and quality in education has had residual social repercussions for ethnic minorities.

The U. S. Supreme Court decisions in the 1947 *Mendez v Westminster* and the 1954 *Brown v Board of Education* cases declared racial segregation was unconstitutional. After the Supreme Court's decisions African Americans and Latinos thought that a "new era was dawning" (Harvey et al., 2004, p. 328). At the time of these decisions, nearly all post secondary African American students were attending Historically Black Colleges and Universities (HBCUs) and few Latinos attended predominately White institutions (PWI). It was not until 1992 that the Hispanic Association of Colleges and Universities convinced Congress to formally recognize campuses with high Latino populations and provide those institutions with the status as Hispanic Serving Institutions (HSI) National Center for Education Statistics (NCES, 2012). By 2000, a majority of African American and Latino students were attending PWI, whereas the enrollment peaked for Whites was in the early 1990s (Harvey et al., 2004). Enrollment for African Americans and Latinos was increasing; however, retention and graduation rates were not mirroring the increased enrollment rates (NCES, 2013).

There are multiple explanations of why African Americans and Latinos were not graduating from higher education (Harper, 2009). Harper and Associates (2014) explored stereotypes and provided the following deficit narrative about young African American and Latino men and encouraged the readers to look beyond the stereotypes:

Their futures are hopeless. All but a few will remain trapped in generational cycles of poverty and crime-infested neighborhoods. Their lazy, drug-addicted, government-

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dependent, single parents care little about their schooling. Consequently, they inherit

from their families and communities a staunch carelessness for learning and educational

attainment. More appealing to them are guns, gangs, fast money, and one pair of career

options (either becoming rappers or professional athletes)…this caricature of young men

of color in urban contexts is both pervasive and longstanding. It also is one-sided,

terribly racist, and far from universal. (p. 5)

Harper and Associates (2014) found that young African American and Latino men with

proper mentoring want to leave their crime-infested neighborhood. These young men who were

mentored, are not lazy or drug-addicted, their families do care about their education, and

working in a "good" job is a much better option than gang life. In addition, Harper and

Associates (2014) noted that first generation Latino students reported that school was often the

sole reason for many to come to the U. S. During the course of Harper and Associate's (2014)

research, several Latino students mentioned that their parents moved to the U. S. to provide their

siblings with a better education and that their families were determined to provide this

opportunity for their children. However, low retention and high attrition continues to plague the

higher educational system, especially in the science, technology, engineering, and mathematics

(STEM) and agriculture STEM (A-STEM) disciplines.

President Barack Obama acknowledged that there is a problem with low numbers of

STEM and A-STEM graduates (President's Council of Advisors on Science and Technology,

2012). The President and other presidents before him, have each challenged educational

systems, stakeholders, corporations, parents, and students to increase enrollment and graduation

rates for students in all majors, but, emphasized STEM and A-STEM disciplines (The White

House, Office of the Press Secretary, 2010).

African American and Latino Students and A-STEM

The National Center for Educational Statistics (NCES, 2012) reported that degree attainment of ethnic minorities in the U. S. appears to be in a decline, with special attention paid to that population in STEM disciplines. From 2002 to 2010, ethnic minority STEM graduates fell from 8.3 percent to 7.2 percent (NCES, 2012). STEM "is seen as a difficult path for academic work, and therefore African American and Latino students may be less inclined to pursue these disciplines…" (Hayes, 2013, p. 6). Washington (2011) noted that less than seven percent of the physical sciences terminal degrees were awarded to ethnic minorities.

According to the President's Council of Advisors on Science and Technology (2012), "the United States is now putting its future at risk by forfeiting its historical strengths in STEM education. The proportion of STEM degrees among all college graduates has been falling for the past decade" (p. 25). Institutions of higher learning must look beyond the group that has historically enrolled in STEM and A-STEM disciplines, which are White and male, and recruit, retain, and graduate ethnic minorities (Goecker, Gilmore, Smith, & Smith, 2010). A call from President Obama for "all-hands-on deck" was made and he created the Educate to Innovate initiative to move American students from the middle to the top of the pack in STEM (The White House, Office of the Press Secretary, 2010). President Obama and his predecessor, George W. Bush, charged all agencies and committees, with an educational focus under their authority, to develop a plan to produce more graduates with training and expertise in STEM fields; they stressed the much needed inclusion of ethnic minorities and women (National Academy of Science, 2005; President's Council of Advisors on Science and Technology, 2012; The White House, Office of the Press Secretary, 2010). Although the President addressed STEM majors, the colleges of agriculture at higher education institutions also housed STEM majors with an

agriculture background. Thus, there is also a need to increase enrollment in the A-STEM disciplines.

In 2009 there were over 19,000 jobs in agriculture and science, technology, engineering, and mathematics (A-STEM and STEM) unfilled in the U. S., and STEM fields are among the most aggressively growing career fields in the world (Goecker et al., 2010). Sixteen percent of all college students in American universities earn degrees in STEM disciplines; this number is substantially lower than in China (48%), South Korea (38%), and Europe (25%) (Washington, 2011). The Goecker et al. (2010) report indicated that there is a strong need for STEM candidates. This same need is expressed in agriculture and its STEM-related disciplines, also (Dyson, 2010).

Since the 1970s, American post secondary education has experienced increasing numbers of African Americans and Latinos entering colleges and universities but has also witnessed a decline in the number of ethnic minority students enrolling in A-STEM and STEM disciplines (Harper, 2009; Harper & Quaye, 2009). African American and Latino students are underrepresented in STEM academic programs in universities across the US in the attainment of STEM degrees (NECS, 2012; Palmer, Davis, Moore, & Hilton, 2010) and have historically and statistically fallen behind other students with regard to academic performance, persistence, and graduation overall (NCES, 2011).

A-STEM Enrollment, Retention, and Graduation

Before entering college, one-third of freshmen in the U. S. expressed interest in STEM majors (National Science Board, 2012); however, the actual enrollment is much lower. There are a number of plausible reasons for low STEM enrollment and high attrition; however, studies (Griffith, 2010; Hill, Corbett, & St. Rose, 2010) have found that the following groups leave

STEM fields at a higher rate than their White male counterpart: women, underrepresented minorities, first-generation students, and those from low-income backgrounds (Griffith, 2010). Students with weaker academic preparation, and attitudinal factors such as motivation, confidence, and beliefs about capacity to learn in STEM courses also leave at a greater rate (Dyson, 2011; Harper, 2009; Harper & Associates, 2014; Harper & Quaye, 2009; Hill et al., 2010). Other factors contributing to higher rates of drop out, stop out, or changing majors are campus climate, sense of belonging, inadequate academic advising and career counseling, too few role models and mentors, discrimination, and financial aid debt (Anderson & Kim, 2006; Shaw & Barbuti, 2010).

For the purposes of this study, the pseudonym Midwestern State University (MSU) was used to identify the institution from which the participants graduated. African American and Latino student enrollment increased at MSU from 2004 to 2013; however, the retention rates for these students remain low. African American and Latino student enrollment increased in the College of Agriculture at MSU, by 157% from 2004 to 2013. In fall 2013 there were 255 students of color in the College of Agriculture, 45 African American students and the largest growing population was Latino students with 129 enrolled. Thirty-two (32) African American first-time freshmen enrolled in 2007; by 2013 43.81% graduated and 10.32% continued to matriculate. There were 46 first-time freshmen Latino (Hispanic – term used by Planning and Analysis, 2013) students enrolled in 2007; 48.46% graduated by 2013 and 16.48% persisted. These statistics indicate that a number of ethnic minorities are managing to navigate the higher education system and graduate (Harper & Quaye, 2009). MSU graduation rates for African American and Latino students have also increased in A-STEM degrees.

African American and Latino students are beginning to be considered as a viable untapped population needed by the agricultural industry to fill the shortage of professionals in A-STEM positions (Alexander-Harris, 2006). According to the agricultural and natural resource national employment forecast for 2010-2015, the number of jobs in agriculture exceeded the number of qualified graduates by roughly 19,700 jobs (Goecker et al., 2010). Dyson's (2011) work on attracting and retaining African American and Latino students in agriculture STEM majors has identified two solutions to address the low retention and graduation rates.

To increase ethnic minority student enrollment in A-STEM disciplines, Dyson (2011) recommended the following: (a) "Programs must be developed to dispel the negative elements of today's image of agriculture" and (b) "The socialization of the minority student to the campus environment is important to the student's success" (p. 5). Educational and retention programs developed by colleges and universities are directly related to the amount of student learning and personal development and the quality and quantity of student involvement in the programs (Astin, 1984).

Rationale for the Study

The aim of the study is to understand how African American and Latino students at a PWI achieve graduation in A-STEM disciplines. Based on the need for more A-STEM and STEM professionals and the under-representation of African American and Latino students in the fields, it is imperative to examine the factors contributing to the success of these alumni. Identifying their challenges, strengths, and support systems may help universities have a clearer understanding of the factors required for the academic success of ethnic minority graduates. Enriching understanding about the undergraduate experiences of African American and Latino

alumni may lead to increased resources, innovative approaches, and improved outcomes for ethnic minority students.

Slaughter and McPhail (2007) predicted that African American and Latino student participation in post secondary education would increase from 32% (approximately 26 million in 2010) to 38% by 2025. Institutions are therefore charged with developing, not only, strategies to increase African American and Latino student enrollment, but to increase retention and graduation rates (NCES, 2012). State and land grant colleges and universities, where colleges of agriculture are housed, have the most need for retaining African American and Latino students in their colleges (Harper & Quaye, 2009).

Purpose of the Study and Research Questions

The purpose of this research was to explore how three A-STEM degreed alumni, who identify themselves as African American or Latino/a, from a College of Agriculture discuss the contributing reasons for the successful completion of their undergraduate program at a predominately White institution (PWI) – Midwestern State University (MSU).

Three research questions guided the study:

1. What do the participants describe as reasons for their successful completion of their undergraduate degrees in their chosen A-STEM fields in the College of Agriculture at Midwestern State University?

2. What are the participants' formal and informal experiences of being an A-STEM major in the College of Agriculture at a Midwestern State University?

3. In what ways, if any, do the participants discuss their successful completion of their undergraduate programs in relation to their ethnic backgrounds?

Theoretical Framework

Critical Race Theory (CRT) in education and higher education informed this study (Delgado & Stefancic, 2002, 2012; Ladson-Billings, 1998, 2003, 2005; Ladson-Billings & Tate, 1995; Solórzano & Yosso, 2001; Solórzano, Ceja, & Yosso, 2000; Yosso, 2005). Critical Race Theory in education was developed as a theoretical approach to racial inequalities and social oppression in schools utilizing scholarly work from interdisciplinary areas such as critical theory, history, sociology, and women's and ethnic studies (Hayes, 2013; Yosso, 2005). "Critical Race Theory in education and higher education promotes social justice through equitable consideration of communities of color" (Hayes, 2013, p. 12). Critical Race Theory methodologies were used to analyze and interpret the racialized experiences of ethnic minority students by capturing the everyday lived experiences, which challenged society and often isolated and marginalized African Americans and Latinos and their narratives (Hurtado et al., 2002; Ladson-Billings & Tate, 1995). The use of CRT as a framework provides a foundational base for negotiating and navigating issues related to race, class, and power (Delgado & Stefancic, 2002, 2012; Ladson-Billings & Tate, 1995).

The tenets of CRT were utilized as a lens to examine how the participants of the study engaged race to become alumni in A-STEM disciplines at a PWI. The tenets of CRT helped the researcher to explore the practices that shape the university environment and impact students (Gillborn & Youdell, 2009). Further, the researcher explored how the participants of the study negotiated power, privilege, and social constructs in schools, which reproduce and rationalize racism (Delgado & Stefancic, 2002; Ladson-Billings, 2003; Ladson-Billings & Tate, 1995). The examination of power and privilege is imperative for CRT in education (Delgado & Stefancic, 2002; Ladson-Billings, 2002; Ladson-Billings & Tate, 1995). It is noteworthy that higher

education CRT scholars (e.g., Harper, 2006, 2012; Hughes & Giles, 2009; Patton & Catching, 2009; Solórzano, Villalpando, & Oseguera, 2005; Taylor, 2000) have used CRT in their work to demonstrate the utility of CRT in examining complex race-related phenomena and problems in US colleges and universities.

Methodological Framework

This qualitative interview study was designed to explore how A-STEM alumni, who identify themselves as African American or Latino, from the MSU College of Agriculture discuss the contributing reasons for the successful completion of their undergraduate program. DeMarrais (2004) defined an interview as a "process in which a researcher and participant engage in a conversation focused on questions related to a research study" (p. 54). To gain in-depth knowledge from the participants about their particular experiences, or sets of experience, a qualitative interview study was determined to be the appropriate approach (deMarrais, 2004).

Qualitative interview study research is unobtrusive in nature and it necessitates that the researcher be open and flexible to change depending upon what s/he encounters in the field (Creswell, 2007; deMarrais, 2004). Utilizing this approach provided in-depth understanding of success factors for alumni from the College of Agriculture with A-STEM degrees.

This research focused on African American and Latino alumni and their perceptions and lived experiences. Participants were asked their thoughts, opinions, and perspectives, and asked to recall their undergraduate experiences. The interviews were conducted to encourage counter narratives of in-depth, rich descriptions of those experiences, often expressing their opinions and beliefs (deMarrais, 2004). Counter narratives or storytelling is a tenet of CRT methodologies, which provides a voice for those who have been historically silenced and or marginalized, and is counter to the majoritarian/dominant group's story.

Significance of the Study

Two-thirds of the ethnic minorities who enter college will drop out and never graduate (NCES, 2012). A college education is essential to overcoming barriers of poverty and adverse social conditions and to minimizing the educational and economic disparity that exists between African American and Latino people and Whites (Swail, 2000). Researching the African American and Latino student experience in college is relevant to student affairs professionals and faculty. Little research has focused on the success (graduation) of African American and Latino students in College of Agriculture A-STEM undergraduate programs. Most of the research on African American and Latino student recruitment and retention at the undergraduate level has focused on why students fail or leave (Ford-Edwards, 2002; Hernandez, 2000; Kuh, 2005; Padilla, 1999, 2001), not the factors that helped them persist to graduation.

It is anticipated that the personal experiences, challenges, and obstacles of African American and Latino students in this study could inform practices within higher education. Conducting a study of this nature will allow College of Agriculture African American and Latino student graduates to have their perceptions and experiences documented. A number of authors (Bean & Tinto, 2006; Dyson, 2011; Harper, 2002; Harper & Associates, 2014; Harper & Quaye, 2009; Yosso, 2005) noted that more research is needed to help determine ethnic minority successful graduation attributes in STEM-related disciplines.

Definitions

African American: also referred to as Black Americans, Black or Afro-Americans, are citizens or residents of the United States who have total or partial ancestry from any of the native populations of Sub-Saharan Africa; "an American of African and especially of Black African descent" (retrieved from: http://www.merriam-webster.com/dictionary/africanamerican).

Agriculture STEM (A-STEM) majors: Ag Econ (e.g., Accounting, Commodity Merchandising, Finance and Insurance, Natural Resources), Agronomy, Animal Science and Industry, Biological and Agricultural Engineering, Entomology, Food and Grain Sciences, Plant Pathology, and Veterinarian Medicine (MSU University and College Handbook, 2013).

Alumni: are graduates of an educational institution (school, college, university).

Dominant Group: The group in the United States which has the most power and privilege; the heterosexual White male (Lindsey et al., 2003).

Latino/Latinas: These are the masculine and feminine forms of the word, respectively, used to refer to an individual or culture generally from Latin America. More generally it includes all persons in the United States who self-identify as Hispanic or Latino (Feagin & Feagin, 2011).

People of color: Groups who have experienced discrimination because of their physical characteristics. For example, African Americans, Asian Americans, Native Americans, and Latinos in the United States are referred to as "people of color" (Banks & Banks, 2005, p. 451)

Predominately White Institution (PWI): college or university enrollment is comprised of primarily White (non-minority) students.

Race: a group of human beings with distinctive physical characteristics (common ancestry), transmitted by descent emphasizing kinship linkages and "set in a clearly racialized hierarchy and a social construction with no scientific or biological basis" (Feagin & Feagin, 2011, p. 5).

Racism: A systemic infection of ignorance, exploitation, and power used, by the dominant group to oppress people based on ethnicity, culture, mannerism, and physical characteristics. Racism allows the dominant group to believe in superiority of one race over all

others and the right to dominant such subordinate races. (Feagin & Feagin, 2011; Lorde, 1992; Solórzano et al., 2000).

Retention rate: a measure of the rate at which students persist in their educational program at an institution, from one academic year to the next or until graduation at the same institution, expressed as a percentage (NCES, 2008).

STEM disciplines – STEM disciplines are science, technology, engineering and mathematics disciplines.

Limitations of the Study

This study has four limitations. First, the participants self selected their ethnicity and program of study; therefore, the potential pool of participants did not include all African American and Latino alumni or a full representation of all those groups in the college of agriculture. Second, African American and Latino participants all attended and graduated from the same Midwestern land grant university. The participants selected represent different experiences in relation to education. Third, the study is not generalizable; however, to ensure transferability, the researcher provided rich descriptions of the emerging themes and categories through direct quotations from the participants' narratives. Creswell (2007) noted that such rich information allows the reader to make decisions regarding transferability. Lastly, as an African American, my subjectivity was brought into the study.

Chapter 2 - Review of Literature

Three primary areas of research will be addressed in this chapter. These areas are (a) Critical Race Theory (CRT) in higher education, Latino Critical Race Theory (LatCrit), and counter narratives (Delgado & Stefancic, 2000, 2012; Ladson-Billings, 2002; Ladson-Billings & Tate, 1995; Solórzano et al., 2000; Solórzano & Yosso, 2002; Yosso, Villalpando, Delgado Bernal, & Solórzano, 2001); (b) the overall retention of African American and Latino students in both higher education and A-STEM disciplines; and (c) A-STEM education of African American and Latino students (Dyson, 2011; Harper, 2009; Harper & Associates, 2014; Harper & Quaye, 2009).

The personal experiences, challenges, and obstacles revealed in this study can inform practices within higher education to better serve the growing number of African American and Latino students enrolling in A-STEM disciplines. Little research has focused on the success (graduation) of African American and Latino students in A-STEM undergraduate programs. The bulk of the research on African American and Latino student recruitment and retention at the undergraduate level has focused on why students fail or leave (Astin, 1984; Harper & Quaye, 2009; Hurtado, Griffin, Arellano, & Cuellar, 2008; Tinto, 2006). The purpose of this study is to explore how A-STEM degreed alumni, who identify themselves as African American or Latino, from the College of Agriculture discuss the contributing reasons for the successful completion of their undergraduate program at Midwestern State University.

Due to the continued increase in African American and Latino students in higher education (NECS, 2011), there is a need to know and understand the various components that contribute to their success, academically and socially, and ultimately lead to their persistence and graduation. To examine successful student and institutional retention factors, there needs to be an

understanding of the current research to retain African American and Latino students in higher education. As African American and Latino student enrollment in A-STEM majors continues to increase, additional research is needed to help identify the characteristics, experiences, and perceptions of successful graduates.

First, CRT's origin, evolution, and use in educational research (Ladson-Billings & Tate, 1995) will be explored. Included within this review is a subsection on LatCrit theory as a framework for consideration of Latinos in the education system. As the research revealed, not all ethnic minorities have the same experiences of discrimination because they often vary (e.g., African Americans do not experience the same discrimination based on immigration as do undocumented Latinos) (Delgado & Stefancic, 2002; Ladson-Billings, 2006). The adaptation of CRT and LatCrit for educational research forms the framework through which this study was approached (Delgado & Stefancic, 2012). This section concludes with a brief review of counter narratives and how they provide a rich detailed version of the participants' lived experiences during the data collection process (Delgado & Stefancic, 2012; Ladson-Billings & Tate, 1995).

Second, the overall retention of African American and Latino students has continued to be dismal compared to their counterparts (Harper & Associates, 2014; Harper & Quaye, 2009). The U. S. Department of Education has issued its findings for cohorts of students who entered college in 2005 and earned their degrees within six years (NCES, 2012). The national overall graduation rate for White students is 60.2%, whereas the African American graduation rate was 37.9% and the Latino graduation rate was 43.3%.

Finally, literature was reviewed related to African American and Latino A-STEM student experiences, degrees, and completion rates. There continues to be a shortage of African American and Latino students graduating with A-STEM and STEM degrees (Dyson, 2011). The

purpose of this discussion is to provide a context to the field of African American and Latino student retention and graduation in A-STEM disciplines.

Theoretical Framework

Research has suggested that at predominately White institutions, African American and Latino students have lower levels of academic integration and express higher levels of dissatisfaction with their university than their White counterparts (Hurtado, 2002). These along with other factors contribute to low academic achievement and frustration of African American and Latino students, negatively impacting retention and ultimately graduation. Critical Race Theory provides the lens, which the factors impacting retention and graduation identified during the data collection process were analyzed (Ladson-Billings & Tate, 1995).

Critical Race Theory

According to Bell (1973), the civil rights movement was stalled or moving at an extremely slow rate in the late 1960s and 1970s. After much discussion and research, it became apparent to them that there was a need for a lens to look at the legal system and its inherent racism. Thus, Bell (1973) with his law partner Alan Freeman led a group of African American and Latino law scholars in developing a theoretical framework that became known as Critical Race Theory (CRT). "The CRT movement is a collection of activists and scholars interested in studying and transforming the relationship among race, racism, and power" (Delgado & Stefancic, 2012, p. 3). Bell (1973) questioned the small incremental, step-by-step progress of the civil rights movement and the very foundation of the civil rights movement from equality theory to neutral principles of constitutional law. While the authors of CRT had widespread concern for equality in the law, Tierney's (1993) definition for CRT included an "individual transformation" (p. 4) and Ladson-Billings and Tate (1995) incorporated an expansive look at the CRT tenets and

how they could be applied to the field of education and its relationship among race, racism, and power.

Critical race theorists were committed to social justice and their ultimate goal was to eliminate oppression and transform the social world through an expansion into areas such as the sociological, economic, and political research movements (Crenshaw et al., 1995; Degaldo & Stefancic, 2000; Ladson-Billings & Tate, 1995; Matsuda et al., 1993; Powers, 2007; Solórzano et al., 2002). The CRT movement considered the broader perspectives of "economics, history, context, group- and self-interest and even feelings and unconsciousness" (Solórzano & Yosso, 2002, p. 3) that conventional civil rights and ethnic studies discourse did not. It is argued that, since the election and re-election of President Obama, overt racist behaviors have lessened, while everyday racism has increased (Dyson, 2013; Fernandez-Bergersen, 2009). The everyday actions of racism are insinuating, automatic, and nonverbal towards ethnic minorities. Solórzano et al. (2000) and Powers (2007) suggested that CRT in its original form was fixated with analyzing the color line between (binary model) Black and White society and social origins.

Therefore, CRT scholars saw the need to "broaden the approach and borders of the paradigm to include other areas of radicalized oppression" (Hayes, 2013, p. 21), thus, shifting the paradigm to include all ethnic minorities and other oppressed groups. It was that paradigm shift that led Ladson-Billings and Tate (1995) to research the evolution from Critical Legal Studies (CLS) to CRT in education. Critical Race Theory, as a more recent theoretical framework, promotes a more "critical stance on education of historically underrepresented racial and ethnic populations and expand conceptualizations of student success outcomes" (Cellular, 2012, pp. 20-21). Ladson-Billings and Tate (1995) introduced CRT to education and higher education, which helped to make it a scholarly and respected practice among researchers.

Solórzano and Yosso (2002) stated, "CRT in education is a framework or set of basic insights, perspectives, methods, and pedagogy that seeks to identify, analyze, and transform those structural and cultural aspects of education that maintain subordinate and dominant racial positions in and out of the classroom" (p. 25). In education, CRT, as a theoretical lens, endeavors to expose racism (Ladson-Billings & Tate, 1995). As a result of growing sentiment, research on African American and Latino students failing needed to be addressed (Solórzano et al., 2000. Thus, as a research tool, CRT in education brought to the forefront race and racism when analyzing school environments (Ladson-Billings & Tate, 1995). A paradigm shift was needed in education to help restore credibility to the "capacities of persons of color," and "education offers a theoretical avenue, often through counter narratives, an unbiased explanation of race and the law" (Hayes, 2013, p. 23). Morales (2011) stated, "CRT serves as a valuable lens for evaluating the ways in which the subordination of people of color, women, and the poor are created and maintained in the United States" (p. 24). Thus, the tenets of CRT helped to provide the lens through which the reevaluation and reconceptualization of ethnic minorities could happen.

The six tenets, outlined by Dixson and Rousseau (2005), Ladson-Billings and Tate, (1995), Matsuda et al. (1993), and Solórzano and Yosso (2002) are interwoven into the framework of CRT research in higher education. The tenets are: (a) racism is endemic; (b) colorblindness; (c) interest convergence; (d) storytelling; (e) interdisciplinary; and (f) elimination of oppression. For this study, the four tenets used to analyze the data were: (a) racism is endemic; (b) colorblindness; (c) interest convergence; and (d) storytelling.

Tenet One: Racism Is Endemic

Critical Race Theory recognizes that racism is endemic to American life and that ethnic minorities experience racism daily (Delgado & Stefancic, 2001). Race and racism are "on the agenda and in motion in education" (Solórzano & Yosso, 2002, p. 24). Race and class are intertwined in educational experiences of ethnic minorities at the social and political levels, which often yield subordination (Solórzano & Yosso, 2002). In other words, racism is "ordinary, not aberrational – 'normal science,' the usual way society does business, the common, everyday experienced of most people of color in this country" (Delgado & Stefancic, 2012, p. 7). Racism runs deep and is not always recognized in its various forms (Rolon-Dow, 2005). Race and racism are not binary; they go beyond binary issues of 'just' a Black and White issue; race and racism are at the center of CRT (Delgado & Stefancic, 2012; Ladson-Billings & Tate, 2005; Yosso, 2005).

In higher education, the CRT lens is used to examine and analyze structural impact. When systematic racism in higher education is ignored, strategic diversity plans become ineffective (Hiraldo, 2010). Universities and colleges need to consider how their "well intended institutional processes and procedures" (Hiraldo, 2010, p. 55) may promote racism instead of improving the planned diversity and inclusion programs. When racism is ignored, structural and institutional racism are often reinforced (Hiraldo, 2010).

Tenet Two: Colorblindness

Uncertainty toward the dominant culture's legal claims of neutrality, objectivity, colorblindness, and meritocracy are expressed in CRT methodologies (Dixson & Rousseau, 2005). The opportunity has been provided through CRT methodologies to challenge inequalities in schools and address privilege. Once privilege is challenged, CRT researchers are able to

address its effects on ethnic minority experiences (Solórzano & Yosso, 2002). In education it will take aggressive, color-consciousness, not colorblindness, to change the way issues are presently (Delgado & Stefancic, 2012). Colorblindness can be stubbornly unreasonable when it stands in the way of taking into account the respect of ethnic minority differences.

The uses of racial categories determined by skin color and ancestral origin are connected closely to racial subordination (Feagin & Feagin, 2011). "Colorblindness is a mechanism that allows people to ignore racist policies that perpetuate social inequity" (DeCuir & Dixson, 1999, p. 56). Thus, a colorblind view perpetuates white racial domination by maintaining a social and political advantage over people of color (Delgado & Stefancic, 2001).

Tenet Three: Interest Convergence

Advances for Blacks, as argued by Bell (1981), seemed to be driven by the U. S. economic status and "self-interest of elite White" (p. 22). Those incidents, of civil right movements or advances, were more than coincident (Bell (1981). Critical Race Theory challenges a theory that natural laws govern history and insists on both a contextual and historical analysis of society (Solórzano & Yosso, 2002). Thus, the great civil rights triumph, *Brown v. the Topeka Board of Education* (1954), could be seen as serving the interest of managing global perceptions of America, and not just seeking to help ethnic minorities. All eyes were now focused on America and the treatment of its own citizens.

There was little motivation for Whites to eliminate racism in the 1940s and 50s, and CRT maintains that racism advances White interest. According to Bell (1981), the U. S. Supreme Court cases, such as *Mendez v. Westminster* (1947) and *Brown v. the Topeka Board of Education* (1954), were decided more out of White self-interest than the desire to help African Americans and Latinos. Interest convergence benefits Whites in numerous ways and has historically hurt

ethnic minorities. The basic assumption of interest convergence is that the interests of ethnic

minorities will be accommodated only when they benefit Whites (Bell, 1992; Delgado &

Stefancic, 2001; Lynn & Parker, 2006). For example, interest convergence has had its effects on

recruitment and enrollment efforts at PWIs (Ancar, 2008; Fernandez-Bergersen, 2009). Diversity

initiatives may place a stronger emphasis on the recruitment of international students or ethnic

minorities financially equipped to pay for their education, to lessen the burden of financial aid on

its institution.

Tenet Four: Storytelling

Critical Race Theory recognizes that marginalized groups, by virtue of their status, tell

stories that differ from those of the status quo (Delgado, 1990; Fernandez-Bergersen, 2009).

Ethnic minority groups realize that stories are an essential means for their survival and cultural

longevity (Fernandez-Bergersen, 2009). However, these stories often disclose details the reader

should know.

Critical race theorists recognize and respect the experiential knowledge of ethnic

minorities and use their voices as oppressed groups to analyze social conditions (Solórzano &

Yosso, 2002). There is an inherent value when the lived experiences of ethnic minorities are not

marginalized or devalued (Ladson-Billings & Tate, 1995). Thus, narratives have had a long-

rooted history in America going as far back as to American Indians' storytelling, which

preserved their culture. The same tradition of storytelling or slave narratives preserved the

African culture and traditions and their newly found American culture. These stories or counter

narratives often described and unmasked horrific incidents otherwise 'whitewashed' by the

dominant group. Some scholars insist CRT fails to develop a positive program or outcome and

has been criticized for being negative; however, the analysis of storytelling and narratives has

advanced the understanding and validation of ethnic minority perspectives (Delgado & Stefancic, 2012).

The dominant group often suppressed or simply did not value the narratives of ethnic minorities; thus, counter narratives by these groups provided strength and respect for their lived experiences (Fernandez-Bergersen, 2009). Storytelling counters the dominant White, male, and heterosexual ideology. The dominant story has, historically, perpetuated racial stereotyping (DeCuir & Dixson, 2004). Storytelling is critical to teaching and understanding racial discrimination of ethnic minorities. Instead of being ignored or silenced, CRT advocates for African American, Latino, and other ethnic minority voices (Delgado, 1989a, 1989b; Delgado & Stefancic, 2012; Ladson-Billings & Tate, 1995; Solórzano, 1998). Delgado (1989a) suggested, "Whites can acquire the ability to see the world through others' eyes and enable the hearer and teller to build a better world, which neither could make on their own" (p. 2439). With the emergence and respect of counter narratives/storytelling, African Americans and Latinos can work toward creating a more just society, through greater understanding of the other's perspective.

Storytelling or counter narratives used in higher education provides ethnic minority faculty, staff, and students a voice to tell their stories about marginalized experiences. Counter narratives can be used to analyze the campus climate or the ethnic minority students' sense of belonging. Counter narratives often expose the longevity of racism; thus, CRT provides the lens through which to analyze higher education's climate (Hiraldo, 2010).

Latino Critical Race Theory (LatCrit)

Latino Critical Race Theory, referred to as LatCrit, is an extension of CRT discussion about Latino/as in education (Solórzano & Yosso, 2002). Critical Race Theory and LatCrit

emphasize Latino/a experiences, and are useful as an extension of CRT frameworks for new conceptualizations of student success as empowerment for Latino/as college students. LatCrit takes the essence of CRT from a binary Black/White discussion to incorporate the multiplicity of racialized oppression (Solórzano & Yosso, 2002). According to LatCrit Theory, all Latinos do not have the same racist experience as other ethnic minorities; yet, racism is experienced in some form across all ethnic groups. Examples of specific Latino-based discrimination are immigration, language rights, bilingual schooling, internal colonialism, and sanctuary for Latin American refugees, and census categories for Hispanics (Delgado & Stefancic, 2012). Yosso et al. (2001) presented the following enhanced working definition for LatCrit:

> LatCrit theory in education is a framework that can be used to theorize and examine the ways in which race and racism explicitly and implicitly impact on the educational structures, processes, and discourses that effect people of color generally and Latinas/os specifically…Utilizing the experiences of Latinas/os, a LatCrit theory in education also theorizes and examines that place where racism intersects with other forms of subordination such as sexism, classism, nativism, moligualism, and heterosexism. (p. 99)

LatCrit is used as a theoretical lens to inform Latino/a empowerment and student success at higher education institutions.

Counter Narratives – Deficient Narratives

A counter narrative is a narrative that goes against narratives created by the dominant society (Ladson-Billings & Tate, 1995). "In Latino society, picaresque novelists made sly fun of social convention, puffed-up nobility, and illegitimate authority" (Delgado & Stefancic, 2012, p. 44). One tenet of storytelling is that Whites or the dominant group would have no idea how to navigate as an ethnic minority. Therefore, the counter narratives provide perspectives which

unmask the African American and Latino events and experiences in a truer form versus the sanitized version historically told (Delgado & Stefancic, 2012). Counter narratives or stories attack preconceptions and label the discrimination ethnic minorities experience, which often marginalizes them as individuals and as a group. According to Delgado and Stefancic (2012),

> Stories can name a type of discrimination; once named, it can be combated if race is not real or objective, but constructed, racism and prejudice should be capable of deconstruction; the pernicious beliefs and categories are, after all, our own. Powerfully written stories and narratives may begin a process of correction in system of beliefs and categories by calling attention to neglected evidence and reminding readers of our common humanity. (pp. 49-50)

Not only do counter narratives help to provide a voice for ethnic minorities; they no longer remain silent or blame themselves for the circumstances in which they live (Ladson-Billings, 2002).

Retention of African American and Latino Students

A review of the literature regarding the retention of African American and Latino students is presented. Race plays a major role in persistence and retention, as Whites and Asian American students are more likely to persist toward a degree than ethnic minorities identified as African American and Latino (NCES, 2008) and this population encounters challenges, which makes it difficult for them to take advantage of school resources, academic and individual (Kuh et al., 2006).

The campus environment influences the students' perception of the institution. Students perceive that the dominant culture's norm and values dictate how they, as students, spend their time in educationally purposeful activities (Kuh et al., 2006). Although, Tinto's (1975, 1987,

1993) interactionalist and Astin's (1977) student involvement theories may be framed by culturally biased assumptions about what is necessary to survive and thrive in college (Gonzales, 2000; Rendón et al., 2000; Tierney, 1993), their work is deemed a starting point for ethnic student success research (Harper & Quaye, 2009). A point of contention and an issue faced by ethnic minorities is whether students need, or should be expected, to conform to institutional prevailing norms when they conflict with their family norms (Tierney, 1992). Latino students struggle with tensions the students feel between college and home life and various cultural issues during their undergraduate years, thus creating belongingness issues (Gonzalez, 2000).

Belongingness issues coupled with the perception that faculty, staff, and administrators are not interested in their individual or academic success affects retention of these students (Kuh et al., 2006). Belongingness issues coupled with biculturalism enhances the Latino student's feelings of belong and their views of campus climate. Biculturalism is defined as standing in two worlds a two-cultured society (Schwartz & Unger, 2010). Ethnic minority students must manage two worlds; that of their family, friends, culture, and traditions sharply contrasted to the college or university community (Kuh et al., 2006). Even PWIs which mean well and have adopted diversity in their mission statements and practices often maintain culturally biased policies and practices that contribute to ethnic minority students feeling alienated and belongingness issues. Ethnic minority students often do not understand what is actually expected of them because they are confused by the mixed messages they receive from the PWI (Swail, 2003; Torres, 2003).

Several reports indicated a dismal account of African American and Latino student graduation rates in colleges and universities (NCES, 2012, 2013). Dropout rates have continued to hover between 44 and 50 percent among ethnic minorities identified as African American and

Latino, although higher education institutions are now boasting record ethnic minority student enrollment (NCES, 2013). As indicated in the NCES (2013) report, retention numbers are not increasing at the same pace as enrollment increases. However, identifying factors, which contributed to low retention and high attrition rates for African American and Latino student, has become vital (Harper & Associates, 2014). One such factor identified is navigating the college or university system (Harper & Associates, 2014).

Student adjustment, academically and socially, compounded with dimensions of racial identity influences, presents students with an entirely new set of college experiences to navigate (Jones & McEwen, 2000). More specifically, students' race or ethnic identity, as experienced by African Americans and Latinos at a PWI, can cause heightened vulnerability to attrition (Delgado & Stefancic, 2002; Harper & Associates, 2014; Harper & Quaye, 2009; Hurtado, 2002). Ethnic minorities feel isolated and alienated in the classroom at PWIs (Hurtado, 2002). It is not uncommon for large lecture classes at PWIs to have one ethnic minority student who is then singled out to speak for his/her race or ethnicity (Harper & Associates, 2014). There are ethnic minority students who cannot tolerate the pressure of being singled out and being labeled as the voice of their race or ethnicity. These students find it easy to stop attending the class – thus, withdrawing or failing the class, which leads to more dire consequences and affects retention rates (Harper & Quaye, 2009).

Over the last few decades, researchers have studied attrition rates and weighed in on the retention debate. They sought to understand the social and academic challenges, which impact African Americans' and Latinos' experience at PWIs and their attrition rates (Harper & Quaye, 2009; Hurtado, 2002; Nora, 2001, 2004; Rendón, Hope, & Associates, 1996; Watson & Kuh, 1996). The researchers suggest that student and institutional commitment has a much larger

impact on African American and Latino student academic achievement, which ultimately determines their ability to persist to graduation. Swail (2003) noted, "That the effectiveness of a campus-wide retention program depends on supportive leadership, willingness to evoke change on campus, and careful planning" (p.14). It is also important that institutions make an effort to integrate ethnic minority students into PWI academic communities and they have a responsibility to be sensitive to students' needs and concerns (Elmers & Pike, 1997; Terenzini et al., 1994).

Harper and Associates (2014), Harper and Quaye (2009), Hurtado (2002), Kuh et al. (2006), Nora (2001, 2004), Rendón et al. (1996), and Watson and Kuh (1996) discussed key institutional and student factors to help with retention. The key institutional retention factors included: (a) institutional commitment to diversity awareness and inclusion; (b) comprehensive orientation and retention programs that focus on the integration of students and their families in the fabric of the university; (c) adequate financial aid packages; (d) diverse faculty and staff; (e) mentoring relationships for students; (f) ethnic-specific student programming and extra-curricular activities; and (g) social and academic support systems. Harper and Associates (2014) suggested that these factors, often considered obstacles by African American and Latino students, should be either embraced or overcome in order to succeed in higher education institutions. One possible course of action is intentional programming to combat the high attrition rates of African American and Latino students.

Pascarella and Terenzini's (2005) work helped to understand attributes and best practices that helped students to succeed. Although their work did not identify race or ethnicity, the following attributes helped students earn good grades and graduate: (a) living on campus, (b) participating actively in their classes, (c) engaging in a variety of clubs and structured activities, (d) interacting substantively with professors and administrators outside the classroom, (e)

studying in groups and collaborate with peers on academic related tasks, and (f) attending

college full-time. In a study of African American and Latino men conducted by Harper and

Associates (2014) they conclude that at an alarming rate these undergraduate men did the exact

opposite of the best practices for retention developed by Pascarella and Terenzini (2005).

College students who adhere to those best practices and attributes, regardless of race or ethnicity,

tend to be more successful.

African American and Latino Students in A-STEM Disciplines

According to NCES (2011), it is estimated that ethnic minorities will comprise 39 percent

of the population by 2020. Persons who identified as Caucasian will become the new ethnic

minority, numerically falling behind ethnic minorities identified as African American, Native

American, Asian, and Latino/a (Palmer et al., 2010; Tyson, Lee, Bormann, & Hanson, 2010).

Given the potential for a population swing and global economic power through STEM, educators

are urged to recognize the necessity of improving A-STEM and STEM education for ethnic

minority students (Green, Andre, Glasson, & George, 2009; Harper, 2010; Tyson et al., 2010).

A-STEM and STEM fields are considered to be the most crucial area driving economic

growth and advancement in the world (Callan, 2006; Palmer et al., 2010; Wagner, 2006). The

growth of A-STEM and STEM occupations increased by 26 percent from 2002 to 2012, but the

U. S. has not produced enough candidates to meet this increasing need (NCES, 2011; Science

Education Foundation, 2005; Tyson et al., 2010; Washington, 2011).

The NCES (2012) report on trends in STEM disciplines indicated that a lack of quality in

K-12 education, the decrease in science (namely physics) and mathematics (calculus) course

completion in high school, an increase in tuition costs associated with more courses for A-STEM

degree programs, and the lack in mentoring services are contributing factors to low attrition rates

for African Americans, Latinos, and women in A-STEM and STEM fields. Reasons attributed to the phenomenon are a shortfall of financial aid, a lack of fiscal counseling, inadequate mentoring, lack of cultural and social support, a dependence on Eurocentric curricula, faculty indifference, racial hostility, and an absence of institutional commitment (Townsend, 1994). The lack of programming and the need for continued persistence after the freshman year is also considered factors in high attrition rates for this student population (Townsend, 1994).

While there are many reasons listed in the National Science Foundation (NSF, 2005) and the Congressional Commission on the Advancement of Women and Minorities in Science, Engineering and Technology Development (CCAWM-SETD, 2000) reports as contributing factors to the low retention and high attrition rates of African American and Latino people in A-STEM and STEM-related professions, the reports also noted that the largest pool of potential workers include women, minorities, and persons with disabilities. It was also noted "women, minorities, and persons with disabilities continues to be isolated from agriculture, A-STEM and STEM careers" (CCAWM-SETD, 2000, p. 1). The U. S. must consider tapping into these valuable human capital resources in order to keep America preeminent in its economic base and intellectual standing in the world (CCAWM-SETD, 2000). The nation will continue to be behind in productivity if we do not fix the low retention and high attrition rates of our ethnic minority students (Mitchell, 2006). Increasing the number of ethnic minority A-STEM and STEM graduates would influence both the domestic and global economies (Harper & Associates, 2014; Harper & Quaye, 2009; Jackson, Moore, & Leon, 2010; Rendón et al., 2004), as this is an untapped pool of candidates (Goecker et al., 2010).

Various assumptions exist surrounding the rationale for the high attrition rates for African Americans and Latino/as in A-STEM disciplines. In the Elliot, Strenta, Matier, and Scott (1995)

study on Black student persistence in college, one third of African Americans who had declared majors in STEM completed their degrees. Supportive educational environments during college are positively linked to retention and persistence for students of color in STEM education (Cole & Espinoza, 2008; Fries-Britt et al., 2010; Harper & Quaye, 2009; Hurtado et al., 2007). One such factor directly linked to African American and Latino student retention is their relationships established outside the classroom with faculty mentors. Harper and Associates (2014) stated,

> Too often the onus for student-faculty relationships in college falls on the student. Undergraduates who are first in their families to attend college, those who commute, and those who may be the only person in a classroom from their racial group or socioeconomic background will likely find approaching a professor intimidating. Moreover, some may not know what questions to ask a faculty member or what to expect in a relationship beyond the classroom. Therefore, it is critical for college instructors to initiate contact with undergraduates, those who are struggling as well as those who show academic promise. (p. 29)

Palmer et al. (2011) reiterated the need for support of ethnic minority students including ethnic role models, peer mentoring from advanced students of similar ethnic groups, and relationships with staff of color. Additionally, support that ethnic minorities receive from peers, mentors, and faculty is critical to success in STEM education (Fries-Britt et al., 2010; Hays, 2013; Harper & Quaye, 2009; Hurtado et al., 2007). Ethnic minorities, who receive faculty mentoring first in high school and later in post secondary education, succeed at a greater rate than those that do not (Palmer et al., 2010).

The success of Harvard, Colgate, and Amherst could possibly be attributed to race-sensitive admissions policies, retention and orientation programs, and sufficient financial aid

packages (Johnson, 2010). Another factor promoting retention and persistence of African

American and Latino/a students in A-STEM and STEM education is participation in research

experiences as undergraduates (Barlow & Villarejo, 2004; Harper & Quaye, 2009; Hurtado et al.,

2008). Participating in research not only attracts and retains students in science, it also "enhances

the educational experiences of undergraduate students, and serves as a linchpin to careers in

science" (Palmer et al., 2010, p. 493). African American and Latino students engaged in research

enhance their knowledge and understanding of A-STEM and STEM disciplines (Dyson, 2011;

Harper & Quaye, 2009). The opportunity for research provides the students with a greater

connection to faculty, fosters problem-solving skills, enhances technical and presentation skills,

helps to facilitate self-confidence, and provides greater insight into and clarification of career

goals (Harper & Associates, 2014; Harper & Quaye, 2009; Hurtado et al., 2007).

Research has shown that ethnic minority specific programs during college are linked with

increased persistence for A-STEM and STEM students (Palmer et al., 2010). Summer bridge

programs have been found to enhance the retention and persistence of students of color in STEM

education. MSU's six-week intensive pre-college summer program Multicultural Academic

Program (MAPs) exposes students to disciplines in A-STEM, engineering, and business.

Instructors within the program teach critical thinking skills, advanced mathematics courses,

English courses, and research/training skills and provide mandatory tutorial support (MSU

Office of Diversity, 2012).

The Louis Stokes Alliance for Minority Participation is an ethnic minority specific

program supported by the NSF to assist colleges and universities in diversifying the workforce

entering STEM and A-STEM fields (NSF, 2012). The program supports institutions' efforts to

increase the numbers of students who successfully complete baccalaureate degrees in STEM and A-STEM disciplines.

Summary

This chapter presented a review of literature with implications for the undergraduate experiences of African American and Latino alumni with A-STEM degrees from the College of Agriculture. Literature was reviewed about the history and tenets of CRT and how is used to inform, analyze, and interpret raw data in qualitative research. The storytelling tenet of CRT helps to acknowledge the "voices" of the participants of this study and counter narratives was the format utilized to collect data (Delgado & Stefancic, 2002, 2012; Ladson-Billings & Tate, 1995). The research enhanced understanding of the reasons for ethnic minority students' low retention and high attrition and the need for ethnic minority students in A-STEM disciplines. Although there is a plethora of literature related to low retention and high attrition for African American and Latino students, there are several gaps in the existing literature about factors or characteristics attributed to successful graduation from A-STEM programs.

Little is known about how best to support African American and Latino students in A-STEM programs as they navigate through their undergraduate experiences to graduation. More research is critical to understanding the African American and Latino students' challenges, as well as attributes that may contribute to success for this population at the college level (Harper & Associates, 2014). With the increasing number of African Americans and Latinos enrolled in A-STEM programs and the national need for more graduates (Dyson, 2011) in the field, additional studies are needed to address successful attributes, which can assist colleges and universities in implementing strategies to ensure African American and Latino students are successful (Harper & Associates, 2014).

Relatively few studies of African American and Latino students have used qualitative interview studies with this population as their primary data, and no qualitative studies have focused on African America and Latino students in A-STEM programs. Little is known about the undergraduate experience of African American and Latino/a students from their own words. This has led to a lack of understanding of the issues ethnic minority student face upon entering the College of Agriculture, as well as a lack of knowledge as to how to assist them with this experience (Morgan, 2012).

This study was an effort to contribute to the existing gaps in the literature about African American and Latino students in A-STEM disciplines. The study focused on a sample of African American and Latino graduates and explored the navigation and negotiation of race, class, and power in college.

Chapter 3 - Methodology

The purpose of this research was to explore how three A-STEM alumni, who identified themselves as African American or Latino/a, from the College of Agriculture, discussed the contributing reasons for the successful completion of their undergraduate program at a predominately White institution (PWI) – Midwestern State University (MSU).

Three research questions guided the study:

1. What do the participants describe as reasons for their successful completion of their undergraduate degrees in their chosen A-STEM fields in the College of Agriculture at Midwestern State University?

2. What are the participants' formal and informal experiences of being an A-STEM major in the College of Agriculture at a Midwestern State University?

3. In what ways, if any, do the participants discuss their successful completion of their undergraduate programs in relation to their ethnic backgrounds?

Rationale for Qualitative Study

Qualitative research aims to gain an in-depth understanding of human behavior and the reasons that govern such behavior by investigating the why and how of decision-making (Denzin, Lincoln, & Giardina, 2006). Thus, this qualitative study is grounded in the epistemology of constructionism. Constructionism assumes that understanding, significance, and meaning are developed not separately within the individual, but in coordination with other human beings (Leeds-Hurwitz, 2009). Leeds-Hurwitz (2009) states, "the elements most important to the theory are (a) the assumption that human beings rationalize their experience by creating a model of the social world and how it functions and (b) that language is the most essential system through which humans construct reality" (p. 892). Qualitative research makes it

possible for the researcher to obtain in-depth understandings of multiple perspectives or experiences. Qualitative inquiry, in other words, can yield findings that result in profound understanding of the subject of inquiry. A qualitative study is one wherein the researcher "attempts to systematically inquire about an in-depth nature of the human experience within the context in which the experience occurs" (Bhattacharya, 2007, p. 3).

Qualitative methods are useful in exploring questions related to perceptions and beliefs about experiences through which a phenomenon becomes better understood (Denzin et al., 2006). Systematic inquiry is a straightforward concept. However, when one applies these straightforward concepts to unique and context rich social experiences, numerous interpretations, including potentially contradictory meanings and themes, can be revealed (Savin-Baden & Major, 2013).   Thus, what may seem straightforward may become complicated with multiple, entangled pathways.

Patton (2002) referred to qualitative research as research that explores situations as they occur. Qualitative research provides the opportunity to gain rich descriptions and insightful interpretations of participant experiences, and gives emphasis to the significance of those experiences (Creswell, 2007). Creswell (1998) describes qualitative research as having the following characteristics: "(a) the study is located in a natural setting; (b) the researcher is the key instrument of data collection; (c) the data are collected through words and phrases; (d) the data are analyzed inductively; and (e) there is a focus on participants' perception and meaning" (p. 73). Qualitative research is unobtrusive in nature and necessitates that the researcher be open and flexible to change depending upon the encounters during the interviews (Creswell, 1998). In this study, the focus is on the lived experiences of African American and Latino alumni are

delved into. Understanding human experiences and perceptions drives qualitative inquiry (Bhattacharya, 2007).

In this study, the data primarily involve interviews of three African American and/or Latino alumni. In these interviews, the participants were asked about experiences relating to attributes that contributed to the successful completion of their bachelor's degrees. The exploration of participants' experiences assist in revealing the undergraduate experience, which is at the heart of this study. Data collected through the interviews included participants' insights into successful attributes, as well as ideas, reflections, and reactions that helped the investigator identify important trends, lived experiences, the essence of the alumni's undergraduate experiences and issues.

Subjectivity Statement

Subjectivity is an inherently social phenomenon that comes about through innumerable interactions within society, which influences a person's perspective, experiences, feelings, beliefs, and desires (Solomon, 2005). As a researcher, it does not matter the role, a person's subjectivities are "insistently present in both the research and non-research aspects of our life" (Peshkin, 1993, p. 17). According to Peshkin (1993), subjectivities cannot and should not be eliminated from qualitative research. Continued self-awareness, consistency, and systematic self-monitoring can curb subjectivity in research. Peshkin (1993) noted that mindfulness allows the researcher to "shape what is seen and its meaning so as not to exercise one's subjectivities, but to exercise one's subjectivities" (p. 21). Remaining self-aware, consistent, and self-monitored allows balance between the awareness of subjectivities and actions based on subjectivities. However, they can only be accomplished through the researcher's acknowledgement, responsiveness, and intentions.

My subjectivity is grounded in two personal beliefs: (a) ethnic minority students do not have a level playing field in, education with emphasis on, higher education, and (b) ethnic minority students do not take advantage of the services provided and are destined to be unsuccessful at an higher education institution. Understanding that these are my personal views, I exercised a conscious effort to not be critical of the institution within the study and of the students who might not rise to the final expectation. As I am an African American woman and a former retention specialist, I realize that these are my personal views and this is a form of empathy; it may be considered a survival skill related to my ethnicity and job duties, as I expected and was prepared for the worst (but rejoiced when the worst did not occur).

My investment in this topic is twofold: professional responsibilities and my personal belief that I am on this earth to help students succeed, with emphasis on ethnic minority students. Regarding my professional responsibilities and expectations, my duty as a former retention specialist was to retain students in the College of Arts and Sciences, often working with the Colleges of Agriculture and Business and one national Latino/a retention program for the university. In my present position as the coordinator of the Honors Program, once again, I have been charged with retaining students. Consequently, I prioritize the retention of students as part of my professional duty. However, meeting the needs of students with first year transitional difficulties is my primary role, which requires collaboration, leadership, and communication. Collaboration between administration and students is vital, but equally important is collaboration between students and myself. I provide leadership in my role as the coordinator of these programs, model successful persistence in my role as a graduate student, and provide excellent communication between the participants and me. Additionally, I identified best practices and successful tools to help ethnic minority students persist and graduate. I consider retention and

graduation mutually dependent and, as a result, I am invested in being able to facilitate successful interventions or strategies related to persistence at this university. My subjectivities are addressed through the rigor of the study, intense self-monitoring, and approaching the study as a researcher rather than a practitioner.

Methodology

Critical Race Theory (CRT) informs the methodology of this study. Specifically, interview study (deMarrais, 2004) was used as the primary methodology. Interview study data can include participant insights, ideas, reflections, and reactions that help the investigator identify important trends, lived experiences, and relevant patterns of people's lives. One of the most common methods in qualitative research is interviews (Savin-Baden & Major, 2013). DeMarrais (2004), in her definition of qualitative interview study, states that it is a tool "used when researchers want to gain in-depth knowledge from participants about a particular phenomena, experience, or sets of experiences" (p. 52). Therefore, a goal of interview studies is to construct, to the extent possible, a complete picture based on the interview questions and follow-up questions that focus on the experiences of the participants (deMarrais, 2004).

DeMarrais (2004) noted that the interview process is a conversation between the researcher and the participants, which focuses on the research study questions and how participants relate to the study. Further, deMarrais (2004) asserts, "interviewing is used to illustrate the purpose and extent to which the theoretical framework informs and shapes" (p. 55). DeMarrais (2004) notes that as interviewees describe their lived experiences, one can identify salient patterns in their experiences.

Creswell (1998) described interviewing as a form of data collection that involves interviews ranging from semi-structured to open-ended. The semi-structured interviews allowed

for adaptation to the participants' responses via requests for clarification, and to ask follow-up questions throughout the interview process (Patton, 2002). Different purposes and theoretical perspectives shape qualitative interview approaches (deMarrais, 2004) and in this study, CRT shaped the interview approach.

Critical Race Theory

Qualitative research informed by CRT highlights the significance of storytelling from racial and ethnic minorities, and is used to examine how the participants in this study experience race while resisting oppression in A-STEM disciplines at a PWI. Critical Race Theory was utilized to explore the practices that shape the university environment (Gillborn & Youdell, 2009).

The CRT framework is a way to link theory and understanding about race from critical perspectives to actual practice and actions occurring in education for activism, social justice, and change (Parker & Lynn, 2002). Critical Race Theory in education is defined as "a framework that seeks to identify, analyze, and transform those structural and cultural aspects of education that maintain subordinate and dominant racial positions in and out of the classroom" (Solórzano & Yosso, 2002, p. 25). Parker and Lynn (2002) contend that "linking CRT to education can indeed foster the connections of theory to practice…on issues related to race…and how CRT can be a valuable tool with which to view and analyze issues related to race epistemology" (p. 18). The following schools of thought inform CRT in education: critical theory, history, sociology, and gender and ethnic studies (Ladson-Billings & Tate, 1995; Yosso, 2005).

This framework guided the construction of the questions, which helped to analyze issues of social class and power relations. Critical Race Theory was used to analyze and interpret the counter narratives shared by the participants. Solórzano and Yosso (2002) state:

> Although social scientists tell stories under the guise of "objective" research, these stories actually uphold deficit, racialized notions about people of color. For the authors, a critical race methodology provides a tool to "counter" deficit storytelling. Specifically, a critical race methodology offers space to conduct and present research grounded in the experiences and knowledge of people of color. As they describe how they compose counter-stories, the authors discuss how the stories can be used as theoretical, methodological, and pedagogical tools to challenge racism, sexism, and classism and work toward social justice. (p. 23)

Therefore, utilizing counter narratives or storytelling is vital to research conducted through the CRT lens. Ethnic minorities are provided a space to share their counter narratives to the majoritarian or dominate stories of society. Critical Race Theory seeks to expose racism that oppresses people due to race, class, or gender. Critical Race Theory and the qualitative study design reveals the participants' realties as shaped by their culture and ethnicity over time.

Neglecting to address racial climate and sense of belonging results in difficulties for all students at an institution, not only the African American and Latino/a students (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999). Critical Race Theory provides a basis for negotiating issues related to race, class, and power (Delgado & Stefancic, 2002; Ladson-Billings & Tate, 1995). In order to gain an in-depth understanding of internal characteristics and external attributes, a qualitative interview study was the most appropriate approach for this study.

The CRT framework was used to analyze and interpret racism in education by understanding the students' everyday experiences as they challenge societal racism that has isolated and marginalized African Americans and Latino/as (Hurtado et al., 2002; Ladson-Billings & Tate, 1995). The purpose and definition for CRT in education is complex. The purpose of CRT is that it, "advances a strategy to foreground and account for the role of race and racism in education and works toward the elimination of racism as part of a larger goal, opposing and eliminating other forms of subordination based on gender, class, sexual orientation, language, and national origin" (Solórzano & Yosso, 2002, p. 25).

Critical Race Theory Tenets

For the purpose of this interview study, four of the six key tenets of CRT set forth by Delgado and Stefancic (2012) were used, through various stages of the study, including data collection, analysis, and representation.

- Racism as ordinary, not aberrational -— is normal, this is the way we do things around here, it is a common occurrence, and racism is not acknowledged.

- Colorblindness – is defined as conceptions of equality, expressed in rules that insist only on treatment that is the same across the board, which can thus remedy only the most blatant forms of discrimination

- Interest convergence – changes of and acceptance in Civil Rights as a result of self-interest of elite whites more than from a desire to help Blacks (Bell, 1980).

- Storytelling or counter narratives -- voice-of-color thesis holding that because of different histories and experiences than their White counterparts, ethnic minority stories can be told and not ignored or marginalized.

Research Design

This qualitative interview study was conducted in spring 2014 at Midwestern State University. Three participants, two African American and one Latino alumni, were selected as participants utilizing criterion-based sampling. All participants were graduates of the College of Agriculture, majored in an A-STEM field, and self-identified as African American or Latino. A secondary data source for the study was document analysis.

Participant Selection

Creswell (1998), deMarrais (2004), and Patton (2002) noted that qualitative research does not have a pre-determined number of participants needed for a study. DeMarrais (2004) notes that qualitative studies are contextually based and the number depends on the "richness of the interviews, the extent to which the participants are able to respond to the research purpose and questions" (p. 60).

Purposeful, criterion-based sampling was used to select participants. Merriam (1998) states, "purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (p. 61). African American and Latino alumni who have graduated from MSU College of Agriculture with an A-STEM degree were the focus of this study. Criterion-based sampling involves the researcher establishing a predetermined set of criteria for selecting participants. Qualitative researchers refer to criterion-based selection as a process of "constructing a list of characteristics or attributes of the participants in the study must possess, then proceed[ing] to find or locate participants matching the list" (deMarrais, 2004, p. 59). Participants were chosen because they had a particular feature, attribute, or characteristic, or had a specific experience (Pitney & Parker, 2009). The criteria for selection were the following: (a) graduated between

May 2012 and December 2013 from Midwestern State University with a bachelor's degree; (b)

earned a degree in one of the following A-STEM majors: Ag Econ, which includes Accounting,

Commodity Merchandising, Finance and Insurance, and Natural Resources; Agronomy; Animal

Science and Industry; Biological and Agricultural Engineering; Entomology; Food and Grain

Sciences; Plant Pathology; and Pre-Veterinarian Medicine; and (c) self-identified as African

American or Latino. Three participants were selected and each was interviewed three times. As

a result of the multiple interviews, more in-depth counter narratives were generated during the

data collection process. Each of the participants' interviews was 45 to 60 minutes in length.

The Assistant Dean for Diversity Programs in the College of Agriculture also serves as

the advisor for the university's Minorities in Agriculture, Natural Resources and Related

Sciences (MANRRS) chapter. The Assistant Dean was asked to identify potential alumni

participants for the sample. A signed acknowledgement from the assistant dean indicating

support for the study was requested by the researcher and kept in the participant file. The

Assistant Dean sent identified potential participants an email created by the researcher (see

Appendix A) announcing that she would forward e-mail from the researcher and ask that they

consider the request to participate. The e-mail assured the potential participants of the college's

support for the study. The e-mail also outlined the purpose and the objectives of the study and

the length/time of commitment (see Appendix B), and included the consent form (see Appendix

C), on which their signatures were required if they elected to participate.

Interested participants were directed to contact the researcher via e-mail or phone. Based

on the responses from the participants, the first three (3) participants were selected. The

anonymity of the participants was protected, and the researcher did not know who received the

solicitation e-mail until a potential participant responded indicating interest to participate in the

study. Participation in the study was voluntary, without any penalties for choosing not to participate at any point in the study. Based on the nature of the research and in-depth interviewing, researchers must preserve the identities of the participants and avoid exposing their identities or compromising their rights to privacy (Creswell, 2007; Seidman, 2006). As per the approved IRB, careful steps were taken to preserve the confidentiality of the participants in the study. Each participant was asked to select a pseudonym. Pseudonyms selected were "Drake," "Javier," and "Victoria." The Assistant Dean was asked to check the sample pool to make sure there were no actual alumni by those names in the sample pool. I chose to fictionalize or adapt the proper names of the university and city, which were shared in the interviews as a means of further guarding the identities of those in the study.

The participants were interviewed individually from March through May 2014. Drake and Javier were interviewed three times and Victoria was interviewed twice and the third interview was conducted via e-mail to accommodate her availability. At the conclusion of the first interview, all participants were asked to develop a timeline of significant events during their undergraduate experiences. There was one criterion that the events needed only be significant to them, and no specific protocol was established for the timeline. Participants were also asked to share documents and/or artifacts reflective of the significant events within their timeline. Again, no specific protocol was established; the criterion was that they should feel comfortable in sharing those documents and/or artifacts. Two participants shared photos, club and organizational memberships, research projects, and presentations. One participant shared her undergraduate journals, but did not develop a timeline or share any additional documents or artifacts.

Research Site

This study was conducted at MSU a PWI research land grant institution founded in 1863 (Planning and Analysis, 2014). MSU is state funded with nine academic colleges, a global college which houses distance learning, and over 250 undergraduate majors. Graduate students can choose from more than 100 master's and doctoral degrees and certificate programs (Planning and Analysis, 2013). According to Midwestern State University's website, during fall 2013 semester enrollment was 24,581, and 3,458 students, or 14.1%, identified themselves as domestic African American and Latino/a. Students from all 50 states, every county in the state, and 60 different countries are represented at MSU. The university graduates more than 3,500 undergraduate students each year. The city in which MSU is located is nestled in the rolling hills of the Midwest and has a population of approximately 49,000 (Census, 2010). According to the Office of Planning and Analysis website for the university, the demographics of the fall 2012 faculty include 1,068 Caucasian, 28 Black, 25 Hispanic, 116 Asian, and 5 American Indian.

The MSU College of Agriculture has experienced a 157% enrollment increase of ethnic minority students from 2004 to 2012 (Planning and Analysis, 2014); however, graduation rates for this group have not followed the same trend. According to the MSU College of Agriculture 2007 demographic report, there were 217 first-time freshmen African American and Latino/a students enrolled in A-STEM. By Fall 2013, at MSU, 37.51% of the 2007 cohort graduated and a mere 5.52% persisted, while 62.81% of their White counterparts from the 2007 cohort graduated by Fall 2013 (Planning and Analysis, 2013). Based on the NCES (2012) graduation report, only 7.8% of the African Americans and Latinos obtained degrees in A-STEM disciplines compared to their White and Asian counterparts' graduation rate of 53.6%.

Insider-Outsider Positioning: "I'm Black so Let Me in!"

A characteristic of qualitative research is that the researcher is the primary instrument for data collection, conducting both formal and informal interviews, note taking/journaling, and documenting visual images (Grbich, 2007; Merriam, 1998; Merriam et al., 2001). As the primary instrument for conducting the interviews, I assumed an insider's role; however, not all minority experiences are the same and there are different experiences noted by different ethnic minorities, and even people with whom I share the same ethnic heritage. I fluctuated between insider and outsider, because I had to negotiate and determine the roles during the interview, data collection, and analysis of the data (Dwyer & Buckle, 2009). My insider/outsider status, along with my subjectivity, was fluid and complex at times. I had to consider my research topic, epistemological stance, and interpretation, which are influenced by my lived experiences as an African American woman. In addition to those considerations, my research was guided by four tenets of CRT and assumptions about race and racism (Ladson-Billings & Tate, 1995).

My status as a researcher would relegate me to an outsider's status relative to the participants. Yet, my subjectivity and experience as an African American, a former retention specialist, and my role advising and providing support for ethnic minority students would not allow me to stay entirely outside looking in (Stanley, 2008), because some of our experiences had commonalities. I cannot operate without my worldview, perceptions, values, beliefs, and assumptions; it would be inaccurate and intellectually dishonest to do so. I guided my research with the following assumptions about race and racism: "(a) ethnic minorities are not able to separate themselves from their ethnicity/race; (b) the power of race as both a social construction and as a powerful reality in structuring people's lives is not new" (Smith-Maddox & Solórzano, 2002, p. 68); and (c) the structure of education maintains and promotes racial inequalities both in

and out of the classroom in subtle ways (Fernandez-Bergersen, 2009; Ladson-Billings & Tate, 1995). Presented below are interview excerpts demonstrating Drake's experiences in the program that occurred which cannot be separated from his ethnic background and race. Drake is an African American alumnus of MSU.

One day in class, large lecture class; there were only two of us in the class. The professor asked Tisha if she felt the reasons there are so few Black farmers and farms was because the great migration of Blacks from the south to the north.

Tisha said, "I don't know, sir, that was not part of our readings."

The professor then looked at me and said, "What do you think?" I proceeded to say that the migration happened because Blacks wanted better jobs and education and moving to the city was the answer and of course this affected the number of farmers and farms. The next class he again asked Tisha a question about the Black race, which was not in the readings.

Tisha said, "I don't know."

I raised my hand and answered the question again to the best of my ability. Later that day in the union Tisha confronted me.

"Drake, how you gonna just sit there and not be offended when that man ask us questions like that? Questions, like we know everything 'bout our race and the shit wasn't even in our readings!" She was mad!

Not to be embarrassed I said, "Don't come at me with that bullshit, who better than us to explain things about OUR race. We are the experts because we live it." There, I just threw it back at her!

She was all in my face.

Tisha spit, "Obviously you are missing the point. He doesn't do that to anyone else but us. He doesn't ask the white kids to speak for their race, just us. I am so sick of that shit. Makes me wonder if you truly understand the history of slavery and its continued 'reverberations,' because, if you did, you would be offended."

"That's stupid! So I have to deny to the White man that I know something about our race, which I think I am the expert, because you think he is trying to make me speak for entire Black race?" I could see the spit flying, out of my mouth, when I said this I was pissed and furthermore what the hell does reverberations mean?

"You ain't anybody's expert, you just playing their games. You should have told him, like I did, that the information was not in our readings. Force him to ask us questions about our readings, not this made up bullshit about 'our people.' Don't you see that he is trying to act like he is including us, but it is only on questions about our race, not about the materials, damn!" she said it like I was indeed stupid.

Wow that hit me like a ton of bricks. The only time I am called on in the class is when there is a question or comment about our race. I thought I was showing them that I was smart and that a brother wasn't dumb, when all the while I was playing their game.

According to Ladson-Billings and Tate (1995), racism is prevalent and endemic for an ethnic minority student. Ladson-Billings and Tate (1995) further argued that to not understand this endemic nature of racism is detrimental to the progression of Black people. This was one of the first real times I experienced being an insider; I understood the pain, anguish, and embarrassment Tisha was trying to explain to Drake for I, too, have experienced this racist behavior.

To remain aware of the fluidity of my role and balancing my insider/outsider assumptions, a journal was kept and I performed member checks before the subsequent interviews and then again at the conclusion of the three interviews once all transcriptions were completed. Peer debriefing with faculty mentors was completed at the end of the three-interview process, and also was completed at the conclusion of the study.

Data Collection Methods

The goal of this interview method was to improve the quality of the data obtained in the exchanges (Seidman, 2006). As qualitative interview study is the methodology used to conduct the research; interviews, and documents were the sources of data. Creswell (2007) refers to six forms of data collection: documents, archival records, interviews, direct observations, participant observations, and physical artifacts. Participant interviews consisted of three interviews, approximately 45-60 minutes each during a nine-week time period. One participant's third interview was via e-mail. Member checks took place after each interview and at the end of the data analysis peer debriefing occurred.

Orientation. Key to establishing a relationship with the participant was his/her comfort with the technology utilized for interviews. Thus, an orientation was developed for each participant to (a) become familiar with the technology, (b) pilot its use and work out any technology issues and time differences (c) follow consent protocol and answer questions about the study or the process, and (d) confirm the schedule for the three interviews. Table 3-1 represents the data inventory of the raw data pages generated for this study that were used for data analysis purposes.

Table 3.1 Data Inventory

Data Source	Total Pages
Participant (3) interviews	386
Demographic survey and notes	9.5
Documents and artifacts notes	82
Observation notes ZOOM video recording	79
Member check	127
Peer debriefing	24
NVivo coding and analysis notes	211
Coding and analysis	78
Total	**996.5**

Interviews

Words mean more than what is set down on paper.
It takes the human voice to infuse them with shades of deeper meaning.
Maya Angelou, I Know Why the Caged Bird Sing (1963)

The qualitative data collected and analyzed in this study were derived from semi-structured interviews/counter narratives and review of documents provided by participants. DeMarrais (2004) suggests the role of the researcher is that of a teacher and learner who, in turn, transfers the data interpretations from the interview study.

Qualitative interviews are used by researchers who wish to learn from their participants "through long, focused conversations" (deMarrais, 2004, p. 52). Interviews allow for conversations to occur with specific focus of responding to the research questions. Interview

questioning allowed me to use follow-up questions, or probes, to gain in-depth knowledge about experiences, or sets of experiences (deMarrais, 2004).

The interview began with semi-structured open-ended questions developed to prompt detailed descriptions of their experiences as undergraduate students as an A-STEM major in the College of Agriculture. The semi-structured, open-ended questions developed for this study allowed the participants to voice their thoughts, opinions, and perspectives, and provide descriptions of specific experiences (deMarrais, 2004). The semi-structured interviews allowed the participants to tell of their realities and lived experiences, which led to graduation from the university. Furthermore, the interview provides a way for the participants to express moments of oppression and racism while undergraduates in an A-STEM major in the College of Agriculture.

In the first interview the first three questions/statements were asked to establish a consistent protocol and build rapport (Seidman, 2006). However, the questions/statements were not designed to be answered in order. The questions were designed to be fluid and could be asked in any order other than the first three questions. Questions during the interview were framed using "tell me," "walk me through," and not "why," to encourage stories of the participants' experiences. An interview guide (Appendix D) was carefully constructed with open-ended questions/statements, which allowed participants to reflect on their own personal experiences.

Following are the first three interview statements used in the study:

1. Tell me about a time that you decided to enroll in the A-STEM program at K-State in as much detail as you can remember.

Probes to help explore further
Reasons for entry into the program
Prior background
Family or other support system for decision-making
Professional or academic aspirations

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2. Walk me through your first month in the program, in as much detail as you can.

Probes to help explore further
Formal interaction with peers
Formal interaction with faculty
Informal interaction with peers
Informal interaction with faculty
Navigating around the campus
Setting themselves up as a student (e.g., registration, admission, orientation, week of wild activities)

3. Tell me about a time when you experienced some challenges in your undergraduate studies and how you handled them.

Probes to help explored further
Formal interaction with peers
Formal interaction with faculty
Informal interaction with peers
Informal interaction with faculty
Navigating around the campus.

The Interview Process

Interviews were conducted individually with each participant and were scheduled over a three-week time frame. Individual interviews began with introductions and discussions to help create a rapport with the participants before the introductory questions. Although the questions/statements were semi-structured, the initial interview followed a structured format; the research purpose and questions were used as a foundation and questions were developed for the three interviews. Utilizing a semi-structured question/statement format allowed me to develop additional questions or statements based on the participants' responses.

During each of the interviews, I made notes, for private journaling as the participants spoke about their experiences. These notes were later used to confirm details in the process of data transcribing, coding, and analysis.

The length of interviews varied from participant to participant in this study. The minimum length of an interview was 38 minutes (the first interview with a participant) and the maximum length of an interview was 84 minutes. It became evident that Drake, who identified himself as an extrovert, would willingly provide information, where Javier provided succinct and direct responses to the questions and to the probes. After the initial interview, each participant they were asked to create a timeline of undergraduate events.

The timeline was developed to note events during their undergraduate experiences. The instructions were left ambiguous so that participants could develop a timeline that reflected a graphical representation of their experiences. By using this timeline activity, I increased the chances of seeing and understanding the participants' perceptions of these experiences. When working with the timeline, the participants related their stories in non-linear fashion moving back and forth between events.

The second interview invited each participant to reconstruct details of his/her social and academic past and was designed to address the research question focused on the participants' formal and informal experiences. To encourage life examples of their experiences, the questions were framed using language such as "could you draw," "would you be able to think," and "are there examples?" In the first set of interviews, it became evident that the three participants had come to MSU in hopes of becoming veterinarians. By their junior year, all three participants had changed majors.

Counter Narratives: Countering the Majoritarian Story

Counter narratives are used to challenge or displace the majoritarian story. The majoritarian stories are stories generated by Whites or the dominant culture. These stories are regurgitated as fact (Delgado & Stefancic, 2012; Solórzano & Yosso, 2002). Counter narratives,

on the other hand, are stories, or the telling of the stories, about marginalized people. These counter narratives helped to expose, were used to analyze, and often challenged dominant stories of racial (Solórzano & Yosso, 2002) and gender privilege (Ladson-Billings & Tate, 1995). As Delgado and Stefancic (2012) noted, "some of the critical storytellers believe that stories also have a valid destructive function. Society constructs the social world through a series of tacit agreements mediated by images, pictures, tales, blog postings, and other scripts" (p. 48). Counter narratives provide the marginalized population an opportunity to express experiences from their perspective countering the majoritarian or master stories. According to Montecinos (1995),

> The use of a master narrative to represent a group is bound to provide a very narrow depiction of what it means to be Mexican-American, African American, White, and so on…A master narrative essentializes and wipes out the complexities and richness of a group's cultural life…A monovocal account will engender not only stereotyping but also curricular choices that result in representations in which fellow members of a group represented cannot recognize themselves. (as cited in Solórzano & Yosso, 2002, p. 32)

Majoritarian or dominant stories are generated from a legacy of racial privilege and are stories in which racial privilege seems natural (Solórzano & Yosso, 2002). According to Delgado and Stefancic (2005), stories can enrich experiences and provide access to other stories beyond those often told.

Counter narratives, as a means of telling one's own experience, have a long tradition in education and African American and Latino/a communities. The stories of African Americans and Latinos were not translated, nor shared properly; therefore, they passed their history down through stories, which most often were counter to the dominate and hegemonic cultures (Delgado & Stefancic, 2002, 2012). Critical Race Theory scholars believe "people of color are

able to name one's own reality through storytelling and counter narratives [storytelling]" (Stevenson, 2004, p. 10). Counter narratives often shatter complacency, challenge the dominant discourse on race, and further the struggle for racial reform (Ladson-Billings, 2001). This is due, in part, to the limited manner of passing traditional knowledge from generation to generation on topics such as everyday matters or survival (Stevenson, 2004).

Thus, these counter narratives open a space for valuing the experiences of ethnic minorities in a PWI. Such experiences are often under reported, and these experiences challenge several stereotypical assumptions made about ethnic minorities in general and specifically in sciences (Ladson-Billings, 2001). Well-intentioned White allies are invited to engage in difficult conversations about racial inequities with information that may or may not have been within their scope of knowledge (Stevenson, 2004).

These counter narratives demonstrate the ways in which racism occurred in the lives of the students on a regular basis, instead of isolated incidents. For example, the previously shared exchange between Drake and Tisha explains the ways in which even oppression and colorblindness exist differently within people of the same ethnic group. For example, Drake was blind to the fact that being called on only to speak for his race was inherently oppressive. Tisha, on the other hand, was sensitive when placed in this role repeatedly. Due to Drake's internalized colorblindness, he perceived being called on, as part of equalizing measure, where his expert knowledge was being sought to equalize misunderstood knowledge about Black people.

The counter narratives in addition to the exchange between Drake and Tisha, also demonstrate interest convergence because the experiences shared reflect that participants often felt isolated or marginalized in predominantly White environments. In many cases, such desires were entirely absent as detailed by the participants in their counter narratives. The experiences

also reveal differential racialization in various educational contexts, whereas White narratives are seen as acultural, ahistorical, and benchmarked as normal while narratives of ethnic minority background are given racialized attention (Delgado & Stefancic, 2002, 2012; Ladson-Billings, 2001; Ladson-Billings & Tate, 1995; Stevenson, 2004).

Acknowledging that institutions of higher learning operate in contradictory ways and allow the coexistence of oppression and marginalization, CRT counter narrative methodologies encourage ethnic minorities to tell their stories (Delgado & Stefancic 2012; Ladson-Billings, 2001). Counter narratives offer information that needs to be documented and that otherwise did not get documented historically. The counter narratives clearly demonstrate how they intersect with the CRT tenets. Beyond racism being endemic the "telling the majoritarian story" patterns was evident. For example, Javier provided insight into his acceptance of the majoritarian/ dominant story.

> I applied for vet school a couple of times but as you know vet school is really competitive. They only offer three seats out of 105 to MSU students. So the competition was crazy. I applied a couple of times and didn't get in. So my advisor, Dr. Advar, thankfully, was always big on having a Plan B, which I did not have. I knew from an early age that I wanted to be a Vet. There was nothing else for me. However, Dr. Advar mentioned a Plan B, which was grad school. We spent the remainder of our advising time talking about the courses I would need for graduate school and I was set on that path. I later asked my fellow classmates, white, what their plan B was and no one had one or was encouraged to have one, they were assigned faculty mentors and were producing research that would help them get into the vet school, or a vet program. There were a couple of Black kids and one Mexican guy and they had plan B's already. One kid had

already changed her major. At the time, I can remember kinda feeling blessed that Dr.

Advar had prepared me for a plan B. I felt that Dr. Advar must have liked me from the

beginning or he would not have cared enough to tell me to have a plan B. I realized after,

the third time, I tried to get into vet school that I had never been made prepared for vet

school only my plan B.

During the interview process Javier recounted this story as if it were his own and not the

recounting of the majoritarian's story.

According to Solórzano and Yosso (2002), majoritarian/dominant methods often "look"

like the person is neutral and objective or those they "care"; yet implicitly, assumptions are made

according to negative stereotypes about ethnic minorities. Javier is a Latino male, from a two-

parent home and both parents are veterinarians, with successful practices in large metropolitan

areas in both the U. S. and Venezuela. He often spoke of being around and working in his

parents' laboratories since he was a little boy. Yet, without knowing him or his background, a

trusted advisor told him to have a "plan B" and Javier was convinced that the professor was

genuinely concerned about his best interest and success, without questioning why his skills or

competence were being underestimated.

Interviews eliciting counter narratives were essential for this research study, because

African Americans and Latinos often make the majoritarian/dominant stories their own. The

majoritarian/dominant story is accepted instead of challenged. The professor could have easily

told Javier, that it will be hard to get into vet school and showed him how to accomplish this

task.

Documents

Another source of rich data in qualitative inquiry is documents and artifacts. In qualitative research, it is important to collect documents that offer additional context to the study in order to gain a deep understanding of the participants' experiences. A document is an item, written or recorded, not prepared at the urging of a request (Lincoln & Guba, 1985). In this study, participants were encouraged to share documents they felt were relevant to their experiences (see Table 3.2).

Table 3.2 Documents and Analysis Protocol

Document	How identifying information was concealed
Timeline	Names and other potential identifying information were redacted
Photographs	Faces in pictures were blurred
Assignments	Names were redacted
Research projects	Names and other potential identifying information were redacted
Conference presentations	Names and other potential identifying information were redacted
Policies of organizations to which participants belonged	N/A
Program policies	N/A
Correspondences with faculty or peers	Identifying information was redacted and pseudonyms were used
Participant's journals maintained during the undergraduate years	Identifying information was redacted and pseudonyms were used

Documents collected during this study included timelines, photographs, conference registrations, research projects and posters, program policies, and correspondence from faculty or peers. These documents were used to inform the analysis of interview transcriptions. For example, the research poster and faculty e-mail (correspondence) were coded and analyzed utilizing the tenets of CRT. For example, organizational membership information was analyzed to find patterns of belonging.

Data management involved working with and systematically reviewing and organizing all data sources. As represented in the data inventory, the data requiring organization and management consisted of interviews, timelines, photographs, assignments, research projects, conference presentations, policies for organizations, program policies, and correspondence with faculty and peers maintained during their undergraduate years. The data were managed and analyzed utilizing the inductive approach while integrating the tenets of CRT. Although the purpose for inductive analysis is similar to other approaches, some of the purposes underlying the development of inductive analysis were:

1. To condense extensive and varied raw text data into a brief, summary format.

2. To establish clear links between the research objectives and the summary findings derived from the raw data and to ensure these links are both transparent (able to be demonstrated to others) and defensible (justifiable given the objectives of the research).

3. To develop a model or theory about the underlying structure of experiences or processes which are evident in the text or raw data. (Thomas, 2006, p. 238)

In this study, a model or theory, was not developed, however, an inductive approach was used to condense raw data in manageable analytic bits, and to establish connections between various data bits, research purposes and questions, and the theoretical framework. The goal of this inductive analysis was to construct counter narratives of the participants' experiences through the lens of Critical Race Theory.

The Process

For this study, the data consisted of interview transcripts, timeline, documents, photographs, and e-mail conversations. The interviews were transcribed immediately following each participant interview. The transcripts were sent to the participants to check for accuracy,

otherwise known as member checks (Creswell, 2007). After the return of the transcripts by the participants with their additions, deletions, and modifications, the transcripts were imported into the NVivo data management software program. NVivo allows for importing different types of data text (e.g., videos, interview transcripts, articles, timelines) (Thomas, 2006). It allows for sorting and managing data sources to look for patterns from the data and also to conduct a Boolean search to interrogate the data for different types of patterns and combinations. The transcripts were read again using the research purpose and questions, and theoretical framework as guides. I informed my analysis through reading and reviewing the data while drawing connections to four of the six tenets of CRT.

After reading the hard copies of the transcripts, broad based coding was utilized, which was informed by three different types of coding: (1) value, (2) description, and (3) In Vivo[1]. A code is a short phrase or word meant to provide an assigned attribute to that portion of the transcript or visual data (Saldana, 2009). Coding helped to "summarize" (p. 2) the large amount of raw data not just reduce it. The coding process is and was a judgment call since I could not exclude my subjectivity to the process.

Through the first phase of the coding process of In Vivo coding, direct quotes of the participants were isolated that had analytical CRT relevance for the study (see Table 3.3). Next, I conducted a descriptive coding on the data. Descriptive coding is a form of coding that allowed me to label the data based on the interpretive meaning I made of the data (Saldana, 2009) (see Table 3.3). Next, I looked into the data for places where I could use value coding. Value coding allows for identifying the "participant's values, attitudes, and beliefs, representing his or her perspectives or worldviews" (Saldana, 2013, p. 268). Working closely with the participants'

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[1] NVivo is a data management software program, whereas, In Vivo is a data coding process for direct quotes.

values, attitudes, and beliefs about their experienced realities allowed me to start seeing such

realities align with various tenets of CRT. Examples of value coding are represented in Table

3.3.

Table 3.3 Broad Based Coding Excerpt From Drake's Interview.

Participant Interview	Broad Based Coding
D: I will never forget the day I moved into the dorms. I was so excited and I thought momma was going to have a heart attack. I already had my room number and my roommate's name - Jake. I remember thinking what Black guy is named Jake. Anyway, I walk into the dorms and the RA comes to help check me in and he is excited. This was a great sign! I had hope that this would be a great experience. The RA said my roommate was a returning student so I will have a great time because he already knows the ins-and-outs and will help me get through my first year here. I pushed the cart of stuff down a long hall and I saw White boy after White boy. My room was at the end of the hall, so I felt like I was on display and of course I am assigned to the back of the bus. I finally get to my room and to my surprise not only is Jake white but he had to be in his 30s or 40s and all OUT country. I guess the old dude and the Black dude or the misfits were assigned together. I looked at my mom and she just nodded her head in the direction of the door, silently telling me to go in it will be ok.	"Excited" – In Vivo coding WELCOMING EXPERIENCE – descriptive coding "Hope" – In Vivo coding feeling stereotyped – value coding "Misfits" – In Vivo coding MOMMA'S SUPPORT – descriptive coding

Once broad based coding was completed, I wanted to interrogate my data using Boolean

search features in NVivo. Integrating CRT into the data analysis process, I wanted to see how

often, if at all, the participants mentioned ideas that were relevant to CRT by using certain

common terms such as *discriminate, race,* and *racism*. Figures 3.1 and 3.2 demonstrate the

results of such search attempts. Once NVivo provided an output of the context within which these terms were used, I took each context and started to categorize them in various folders, labeling them for the content and my interpretive meaning. I documented my interpretive meaning by writing around each of these search terms in categorized format in my researcher journal.

Figure 3.1 NVivo Frequency Word Search of Boolean Text

Using the query function, NVivo software also allows for identifying excerpts where certain

CRT concepts occur such as discussions (e.g., race, racism, discrimination) (see Figure 3.2).

Figure 3.2 CRT Concepts NVivo Query
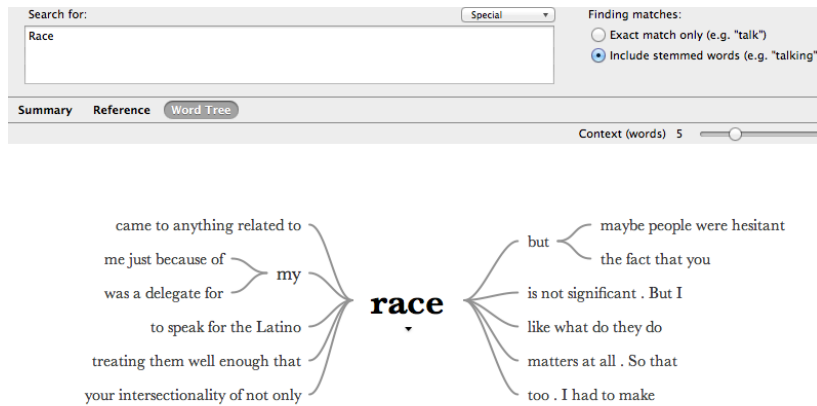
An example of category folders can be seen in Figure 3.3. In other words, once I was

able to write around each context in which such terms appeared, I then began to chunk those

contexts, and create broad categories and subcategories. Thus, the category, Faculty/Staff

Interactions, included experiences in the classroom and outside the classroom and various

contexts in those experiences where tenets of CRT became manifested realities for the

participants.

Figure 3.3 Category Folders NVivo Context Output

Category: Codes:
Speak for race, non support, embarrassed, belongingness, pedagogy

Subcategory 1:
In the Classroom

Subcategory 2:
Out of the Classroom

Category:
Faculty Interactions
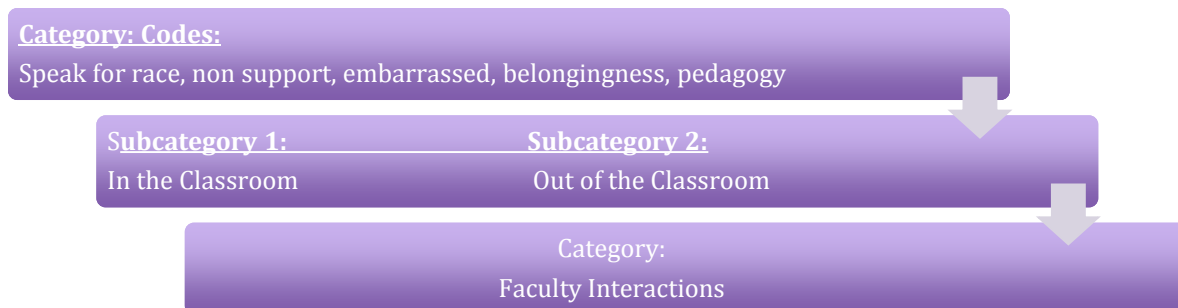
There were other terms that were specific to CRT, such as *colorblindness*, which none of

the participants specifically mentioned, as they were not scholars of CRT; however, I interpreted

some of their experiences as *colorblindness*. I re-read the transcript and identified excerpts from

interviews using tenets of CRT that did not reveal themselves in the Boolean text searches. For

example, I labeled the following excerpt from Victoria's interview as *colorblindness*:

> I asked the professor to please assign me to a group for the group presentations, since no
>
> one had selected me or accepted me in their group. He said "no you have to join a group
>
> on your own, I don't do that for students. I treat everyone the same." Damn here we go!

> I began to see common ideas between each participant's experiences and they aligned

well with the tenets of CRT. The participants identified certain behaviors of the professors as

racist although they did not use that terminology. Drake talked about how his professors would

call on him to answer questions as if he were the spokesperson for all African Americans.

Victoria discussed one of her devastating moments where she needed assistance from a

professor, and instead of using culture-centered pedagogy, the professor took a stance of, "I treat

all students exactly the same way," which denied Victoria's specific needs, especially as first-

generation student of color. She ended up receiving a D in the class. Javier realized that a

professor on the first day of class assumed he would need tutors to help him with English

because he is brown skinned. The power of the labeling of colorblindness did not exclude the

participants. Colorblindness is a dominant narrative that tends to erase the struggles of people of

color. Such narratives can be internalized by anyone, including people of color. This was

especially evident when Drake and Javier reflected on their experiences and realized that when

they initially interacted with their respective professors, they did not perceive the experiences to

be anything more than the professors' attempt to help. It was not until they read their own

transcripts that they realized how a huge part of who they were as students of color and their

needs were completely eclipsed and how they might have themselves done that too.

This query into my data revealed my subjectivities and frustration experienced when participants oppressed themselves using dominant narratives in their lives. To be able to identify patterns in an open-ended way, beyond CRT, I also began to ask the question, "What else is going on here?" An example was when Drake was buying into being the spokesperson for his race and how he thought that showed the professor how smart he was. So I began to journal about these difficult tension points. The journal led to the development of additional probes for the following interviews.

Data Representation

Communicating the findings in qualitative interview studies is the result of constructing the experiences and meanings of events through the eyes of the participants in a manner that portrays a representation of their experiences. Creswell (2007) suggests that there are diverse ways in which to report qualitative findings. Narrative text has been the most used form to convey qualitative data. The results are presented in descriptive narrative form rather than as a "scientific report" (Creswell, 2007, p. 200). The goal of this study is to create a thick description to communicate albeit a fragmented picture of the experiences of the African American and Latino/a alumni (Creswell, 2007). Constructing the alumni's experiences and the meanings to those experiences provided the readers with a lens into the experiences and challenges the participants endured.

As part of counter narratives, the representation was to be told in stories. A result of the data analysis, each participant's counter narratives were created to highlight salient patterns reflected in his/her experiences. The structures of the narratives are displayed in Figure 3.4.

Figure 3.4 Narrative Titles

Drake	•Belonging: Race Matters; •Determination: A Better Option; •Navigating the System: A Brotha Can Make It!
Victoria	•Belonging: When Being Black, Tall and Femal Doesn't Fly'; •Establishing Networks: MANRRS, Career Fairs, and Cargill; •Navigating the System: "Major" Negotiations and Making it Work.
Javier	•Belong: cowboy Boots, Hats and Wranglers; •A Dream Deferred: Plan B; •Nevigation to Graduation: Just Straight-up WhitePeople

While all stories had common elements, they also had similarities and unique differences. The writing around the participants' experiences, the interrogation of data, and the broad based coding allowed for the identification of patterns that were consistent with each participant's stories and individual unique details. This identification of patterns eventually formed a set of counter narratives for each participant. For example, Drake's counter narratives were titled as follows: (a) Belonging: Race Matters; (b) Determination: A Better Option; and (c) Navigating the System: A Brotha Can Make It. Figure 3.4. presents a visual representation of my decision-making process to create counter narrative for Drake. I followed the same pattern building to create counter narratives for the other two participants. These narratives were driven by the salient patterns that occurred across all data sources. These salient patterns were:

1. They needed to be around some faculty and administrators who looked like them because they wanted someone to understand their experiences as people of color in a PWI.

2. Ethnic or culturally based, discipline or college-specific student organizations or programs that supported ethnic minorities were critical to their academic and social success. Participation in these organizations or programs helped the participants to negotiate issues related to race, class, and power, and helped to identify and establish navigation tools.

3. The participants experienced limited to no support from faculty.

4. Ethnic minority students experienced limited opportunities for faculty-led research projects, so their option for research was through research programs outside the college or remedial mentoring programs while their White counterparts had access to faculty mentoring.

The participants identified successful attributes/keys which helped them to persist to graduation. They were identified as follows:

1. To have an ethnic minority (or in Javier's case an international) administrator who understands the unspoken and often denied existence of them as a person first and then a student;

2. To have a safe zone (e.g., their community, ethnic minority organizations) which was identified as a safe haven, a place where they could be themselves without aspects of bi-culturalism, develop as a scholars academically, and have social respite;

3. To have the opportunity to be involved in research projects; to have the opportunity to do more than research but serve as a co-published author or present findings at a local, state-wide or national conference;

4. To have faculty-student interactions outside the classroom;

5. To have a connection with their advisors and the opportunity to build on their ability to bond, trust, and depend on them to provide guidance to graduation;

6. To have support obtaining financial aid solutions, i.e., seeking and finding applicable scholarships, help keeping scholarships, obtaining other additional financial aid opportunities, and help establishing in-state tuition when an additional year of study is warranted; and

7. To have university personnel understand their personal community of family, friends, church, and organizations and how these are catalysts to their persistence and sources of encouragement when needed (see Figure 3.5).

Figure 3.5 Factors Contributing to Student Success
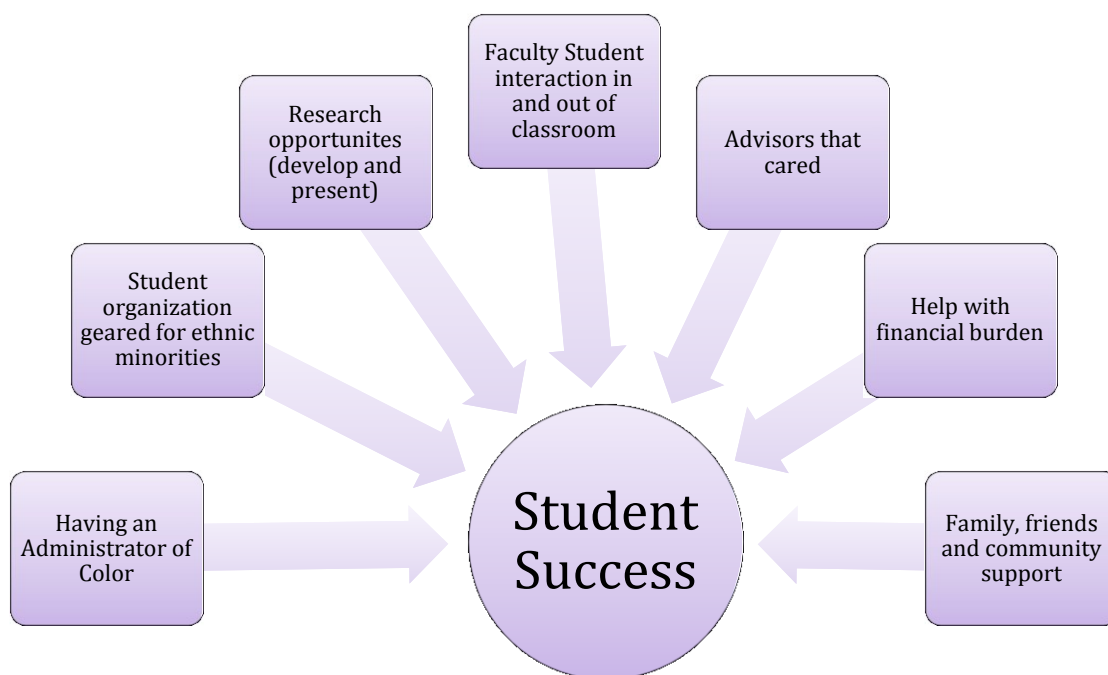
There were several decisions made to align the data analysis and representation to offer evidence to answer the research questions and to align with tenets of CRT. First, instead of offering sterile participant descriptions, participants' words were used to create first person

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narratives to describe who the participants were and their experiences prior to becoming an undergraduate student.

For example, an excerpt from Javier's personal description follows:

> I was born in Venezuela. I came to American with my mother when I was about 17 years old. My father and other family members stayed behind. In Venezuela, we don't classify ourselves by race as much as by class, but in America I discovered quickly that ethnic labels seem important. So I identify myself as a Latino.

The above excerpt did not appear sequentially in the transcript during the interviews. However, those phrases were selected to create an understanding of Javier's background from his own words.

Second, when creating counter narratives for each participant, I remained mindful of how those narratives could be seen through a CRT lens. Using CRT was not particularly difficult to do as the tenets of CRT became well aligned and a natural fit to analyze the participants' experiences. Thus, my analysis pattern did not specifically involve a linear hierarchy of codes, categories, and themes, although there were similar elements. Instead, there was broad based chunking of data, interrogation of data, categorization of search results, writing around searches, and developing counter narratives that reflected the lived experiences of the participants. For example, as a result of the analytical processes, the participants identified experiencing some sort of marginalization as a result of being an ethnic minority student at MSU. While looking at the individual experiences of this marginalization counter narratives were created for each participant that revealed the ways in which those marginalization experiences affected the participants. The ways in which the participants discussed the effects of the marginalization then became part of their individual counter narratives. The counter narratives created were

compositional narratives using the direct words of the participants weaved together to represent

salient patterns (see Figure 3.6).

Figure 3.6 Pattern Building to Create Drake's Broad Narratives

Codes	
Only Black, Speak for Race	Faculty Interactions, Cultural Capital

Categories	
Race, Racisim	In and out of Classroom

Narrative	
Race Matters	Belongingness
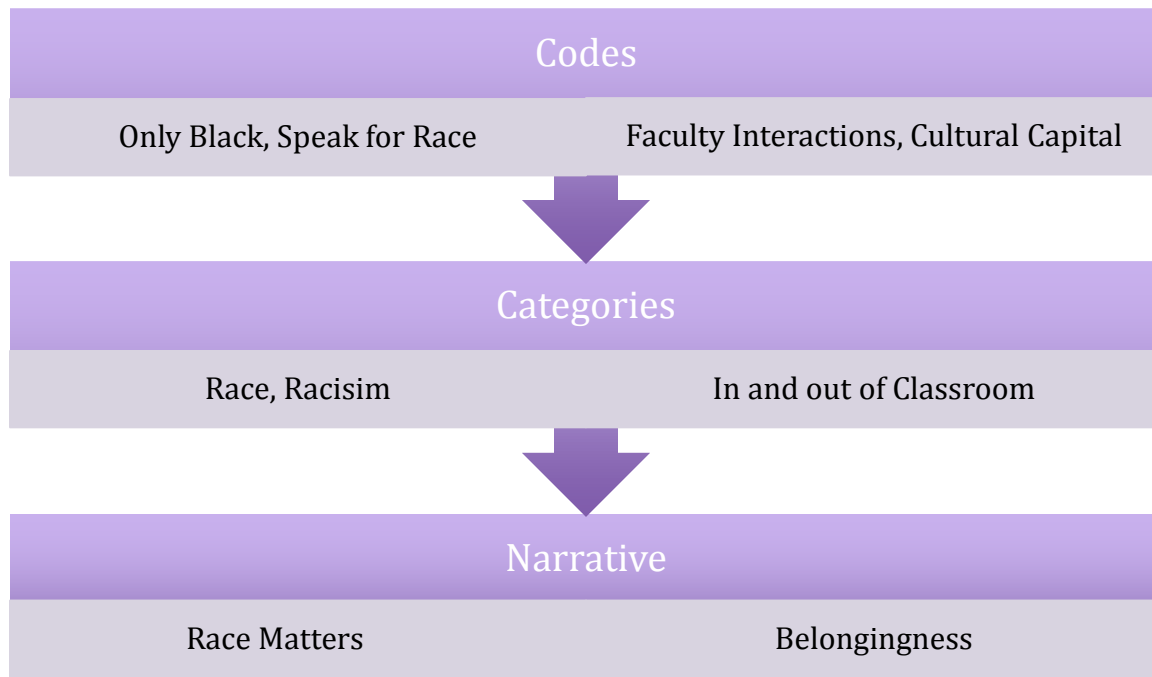
Ethics and Reciprocity

Throughout this research, I was aware of ethical issues surrounding anonymity,

confidentiality, and reciprocity. The risks were addressed by anticipating that the participants

may experience stress while discussing experiences of discrimination. No foreseeable risks were

identified which would keep the participants from participating in the study. The participants did

not display stress during the interview process when the discussions turned to discrimination.

Participants were informed in writing (consent form, Appendix C) that they could

withdraw from the study at any time without penalties at their choice if they were uncomfortable,

without having to provide any justification. During the orientation meeting with participants, I

reviewed my role as the researcher and provided a brief discussion about my subjectivity connected to this study.

As an ethnic minority, I found myself frustrated while interviewing and transcribing the interviews. I began to journal my thoughts to work through ethical issues (e.g., screaming at the participant "what the hell") and also to provide an outlet for the discussions going on in my head. For example, when Drake stated that he did not understand why he could not speak for his race when asked questions by the professor, my heart sank. I was confused as to why this young man was not as outraged as I was or his classmate Tisha was. Through journaling, I was able to work through my frustrations. I had to be careful in my wording so I would not lead them to say what I thought I wanted to hear. It allowed me to look at the situation though the eyes of young African Americans who have been spared the struggle I so dedicated my life to in the 1970s. One of the probes developed as a result of journaling my frustration was "Tell me about a time the professor asked you about the assignment or reading." The participants' response informed me to follow up with, "Tell me how you felt when you realized [his word] the professor never asked you questions about the assignments or readings." The same journaling and probing process occurred when issues of university resources were discussed, because as a retention specialist I knew some of the services they were talking about that were available to and for them. However, it was important that ultimately I *heard* their stories even though we might have differed in our interpretations of our experiences.

Once the research began, I understood that I was accomplishing an academic milestone based on the difficult marginalization experiences of the participants. I was grateful for the entry into the participants' lives, a guest in their stories of their success, in essence a guest into their world (Stake, 2008). I thanked them with a personal handwritten note.

Trustworthiness and Rigor

While I can make certain efforts to maintain rigor in this study, ultimately whether this study is trustworthy or rigorous is contingent on the readers' perceptions. Thus, while I might make good faith efforts to maintain trustworthiness and rigor, I cannot fully ensure that others might perceive this work in a similar manner. Below I present the due diligence with which I approached this work.

After several months of dedicated research and a thorough literature review, the research purpose and questions were distinctly written to ensure rigor and trustworthiness. Once the research purpose and questions were established, the interview study was determined to be the methodology with which to conduct the study and also ensure rigor and trustworthiness. Purposeful sampling strategies (criterion-based sampling) were determined to be appropriate to garner the type of participants needed to gather rich, thick descriptions during interviews. The data were managed, collected, and analyzed carefully to establish rigor and trustworthiness (Lincoln & Guba, 1985; Russell, Gregory, Ploeg, DiCenso, & Guyatt, 2005). To that end, I maintained a detailed journal, which included analytic notes (Saldana, 2013). Peer debriefing with faculty mentors was completed at the end of the three-interview process, and also occurred at the conclusion of the study.

According to Lincoln and Guba (1985), trustworthiness is established and accomplished by accurate analysis and interpretation of the data. Furthermore, infusing both rigor and subjectivity into the research is the overarching goal of qualitative research (Whittemore et al., 2001). The establishment of trustworthiness also requires prolonged engagement and persistent observation in the field to build trust with participants (Fernandez-Bergersen, 2009; Lincoln & Guba, 1985).

Additionally, participants were encouraged, through member checks, to discuss and clarify the interpretations and contribute new or additional perspectives, since a minimal amount of liberty was taken with dialogue in the narratives shared in the research. Participant approval was provided or the dialogue was changed or withdrawn from the research. Building trust includes learning the participants' culture and verifying interview transcripts for misinformation through member checks (Lincoln & Guba, 1985; Shenton, 2004). Member checking provides participants with the opportunity to understand and determine what the participant intended to share. Member checking provides the researcher with the ability to correct errors and interpretation as instructed by the participant. Member checks were addressed immediately following the completed transcriptions. Participants were emailed the transcript for their feedback. Participants clarified the interpretations, added to areas I could not understand during transcriptions, and contributed new or additional perspectives.

Summary

In this study I dedicated time to reviewing research studies in the area of CRT, student involvement, ethnic student retention, and successful graduation attributes for ethnic minorities, among others, in order to orient myself to this phenomenon. Data analysis provided an in-depth saturation of the data through a repetitive process of data analysis (Stanley, 2012). In other words, once I was unable to find an answer to the question, "What else is going on?" I was able to conclude the data analysis process. This is not to say that the research has arrived at some absolute end point and no other analysis or conclusions can be made. Instead, I arrived at a point of saturation of my insights into the data analysis process. I anticipate that viewing this data in the future could lead to other insights unavailable to me currently.

My interest in this research topic has evolved over several decades as a student affair professional and an ethnic minority in higher education. Thus, my reflexivity includes how I situated myself into the study as an ethnic minority and retention specialist. I have worked extensively with ethnic minority college students who have been viewed as at-risk, unprepared, and not serious scholars. While it has always been my desire to work more effectively with ethnic minority students who manifest these monikers, I realize that the participants counter narratives provided open, ambiguous, and contradictory ways of understanding the ethnic minority undergraduate lived experiences at a PWI. Remaining self-aware, consistent, and self-monitored allowed a balance between the awareness of subjectivities and actions taken based on subjectivities.

Chapter 4 - Findings

The results of the interview study investigating the lived experiences of two African American and one Latino alumni of Midwestern State University with an A-STEM degree from the College of Agriculture are presented in this chapter. A section entitled difficult conversations begins the chapter because these narratives needed to be shared to understand the participants' experiences in higher education.

Difficult Conversations

This dissertation has created a space for difficult conversations that needed to occur in higher education. These conversations sometimes might have been uncomfortable to experience. What is even more uncomfortable is to remain silent when fellow human beings experience oppression in their everyday lives, because of who they are in terms of their ethnic backgrounds. The intent of this research study was not to blame any individual specifically for racial inequity, but to highlight the social structures of inequity that continue to play a role in students' lives. Thus, I created a space to have these difficult conversations so that well-intentioned and like-minded people of all ethnic backgrounds can dialogue honestly, build bridges, and express solidarity, if inspired around issues of racial equity. While some of the events described in this study may not be everyone's experiences, nor can one argue that people of one ethnic background experience or understand oppression the same way. The information is presented here as documentation of a review social history in higher education that is not otherwise present in this manner in mainstream literature. My intent was to carve a dialogic space so that with difficult conversations, perhaps ethnic minority students, faculty, staff, and administrators can get closer to healing and understanding differences, instead of holding onto perspectives that further perpetuation of racism.

Personal Narratives

Personal narratives are a key part of CRT (Delgado & Stefancic, 2012; Ladson-Billings, 1998), in that storytelling provides space or voice to "speak with experiential knowledge" (Ladson-Billings, 1998, p. 43) about the facts, which includes African American and Latino student lives. This section provides a descriptive narrative on the three participants of the study. The information was collected from interviews, timelines, e-mails, documents, and artifacts.

Participant Descriptions

An individual description is presented for each participant, providing his/her background and outlining his/her undergraduate experiences that led to the successful graduation from an A-STEM program in the College of Agriculture at MSU. These descriptions encompassed the participants' journey as they progressed through their childhood and undergraduate programs to include significant events of their lives in and out of school. These introductions were written in each participant's voice, taken directly from interview excerpts and organized to frame a coherent narrative.

Drake: I am the product of my momma

I graduated with a bachelor's degree in Animal Science and I also finished a Master's in Public Health fall 2013, both from MSU. As you can see, I am an African American male, tall (6' 2") and a shy person. No, I do not play basketball; I don't even like basketball. I hated that question. Not every tall Black[2] man is a "baller." I was born and raised in a large Midwestern city. My momma was a strong-willed, single mother, whose life goal was to make sure we

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[2] Throughout these narratives Drake and Victoria use interchangeably racial categories of African American and Black, which describe colonized Americans of African ancestry. The interchangeable identities align with the racial definition as provided by the 2010 U. S. Census Brief (Felder & Barker, 2013).

became "something in life. " She raised my two sisters and me. Momma provided a "good " life for us and it wasn't until I was in the 5th grade that I was told that I was poor and lived in the projects.

I can remember that day clearly. D'Ante and I were about 10 years old. I know this because I remember being in 5th grade, Mrs. Kratz class. D'Ante, or D, was my best friend. We did everything together, we hung out together so much that people said they couldn't tell us apart. We were both skinny and always dirty because we loved being outside. But I was always taller.

We could never "just" walk home after school. We always had to make it an adventure; so we cut through the city park. If we cut through the park, he could go left and get to his house and I could go right and get to my house. We lived 3 blocks away from each other. D lived in a house and my house was an apartment on the third floor of building B in Pineridge Housing Authority. One day when we were walking back from school, at the west side of the city park there was a tunnel and we saw a little puppy at the bottom of the little hill at the opening. There were a lot of leaves and some mud so I thought he must have been stuck.

"D, look, I think that dog is hurt," I said in a soft, cautious voice. I have learned that sometimes animals that are hurt think you are going to hurt them more; they will growl and try to bite so we had to be careful.

We both went down to get closer so I could exam him. See, I already knew by then I was going to be an animal doctor, so of course I would be the one to look the dog over. Yes, he was hurt, there was some blood on his left paw and he was whimpering.

"Yes, he is hurt, but I need to look him over some more. I am going to take him home and make him good as new," I said confidently.

"Boy you can't do that, you live in the projects and that's for po folks not animals. You have to live in a house like mine to take any kinda animals home." D'Ante said it like he wanted to call me stupid instead of boy.

I stopped in my tracks. What? I'm poor? I live in a house, it's on third floor of building B. But, now that I think about it nobody has any pets there, except for those stray dogs eating trash, but they don't belong to anyone. What I'm poor! I didn't know I had to be rich to have animals. I just thought it was my momma's rule. – no pets. I could not move, D had to be wrong plus he IS stupid, he don't know what he is talkin' about. While picking the dog up to take him to my house, I declared, "I'm gonna ask my momma if I can have this puppy and help it get better. I'll talk to you later."

Which brings me to my mother or who my sisters and I called the "bulldog." My mother finished two years of college but did not get her associate's degree. She dropped out her last semester, to get a job, because she had become a single mom with me and did not want to go on welfare. Never once did my momma ever make me feel that I was the one that kept her from finishing school. She just did what any mother would do for her kids. I grew up with a mother announcing to the world that I would be the first in the family to graduate with a degree. I may have been categorized as a first-generation college student but my mother made sure she knew everything going on with me at all times.

As I turned the corner into Pineridge headed for my building B, I saw Mr. Taylor sitting on a box and he just shook his head at me. I held the dog close and he never made any noise. I climbed up the stairs, and realized for the first time how dirty they were and all the trash on the ground. Did it just get there or has it always been there that I did not notice earlier? I put the

dog on a piece of paper outside the front door, wiped my hands on my jeans and went into the house.

Momma was cooking and didn't really look up at me, but she said, "Boy you smell like wet dog! Don't you sit on my furniture! Go get cleaned up and those are your good school clothes, I should whoop your butt. I don't know why you can't come home, take off your school clothes, and put on your play clothes like I have asked you to do. I don't have money for new clothes."

Dang, D is right. We are poor. Oh my goodness what am I going to do? I have to ask about the dog because he needs my help. "Momma, I found this dog, it's just a puppy and he is hurt and I want to know if I can keep him and help make him better. I know I can make him better." I ask anyway.

Momma said in soft voice, "No Drake, we can't keep no animals and I'm tired of you bringing these things home. I'm barely able to feed us let alone a stray sick dog, or whatever you decide to pick up." Momma said I have a kind heart but it was against the rules to have a pet and she could not afford to feed anything other than her kids. She helped me find a box, she tore a towel in half, and put it in the bottom of the box and we wrapped the puppy's leg with a piece of towel. She put some beans in a plastic bowl and we put it in the box with the puppy. I took the puppy back to where I found it and I left it there. Three things changed my life that day: (a) I realized that D was right, I am poor; (b) I want to have enough money to help wounded animals; and (c) I am embarrassed at where I live. Don't get me wrong my mother supported my decision, to be a vet, but at this time she just could not afford to buy food and medicine for someone other than her kids. But, thank God for that bulldog!

I don't know much about my father, but I do know that he did not attend college. Momma stressed the importance of an education and insisted that I study to get good grades and scholarships for college. With momma it was never, "Are you going to college?" It was, "Where are you going to college and in what will you major?" The second question was easy to answer. I was going to be a Vet, but the first part was a mystery until my junior year.

Momma started working for the city and we moved to the west side of town, into another apartment but it was in a better neighborhood. Momma wanted to make sure we could go to a "good" high school and have a better chance at scholarships, but damn money was tight again. Could there be one time in my life I didn't have to "save" for? At the new school momma went to every parent's night program for college and she kept asking about scholarships because she knew she would not be able to pay for me to attend college. Momma got on my nerves because she always wanted and did come to school and talk to the counselors and anyone who would listen to her. Good thing she did, because that is how we found out that I could get more scholarships, get into better schools, and have the respect of my community if I took Advanced Placement (AP) classes. Not one counselor ever called me into their office and talked to me about AP classes and how it would help shape my future. All the counselors were White and their offices were always loaded with White students, but I was never on the list to come visit a counselor or go on campus visits. But my mother changed all of that in my junior year.

By my sophomore year I had established that I was a great student. I had a 4.0 grade point average. Somehow Momma found out about scholarships that only the White students would get but Black people could also apply. I got the scholarships to college because my mother kept bugging people until she heard what she needed to hear. I got accepted to MSU and our in-state school, but I ended up with more scholarships to attend MSU.

Momma also told me it was okay to join the Black Student Union (BSU) but to get into organizations like the Science Club and organizations like that showed my teachers that I am smart and about something more than partying and stuff. She spent money for us to be a part of LINKS, a prestigious Black organization. I was an escort in the Delta Sigma Theta cotillion ball and the first in my family to be inducted into the Honor Society. You would have thought I had received the Nobel Peace Prize. We have a Black newspaper and everything I did, all awards I won, honor roll announcements and all of that kind of stuff was always sent to the paper for announcement.

I graduated in the top 10% of my senior class and was offered a "ton" of scholarships. Before my junior year, someone told my mother about the Alpha Phi Alpha Fraternity HBCU college tour. They would take Black kids during spring break to several Black colleges and it cost $375.00. We had already decided on making a choice between MSU and our in-state school (depending on scholarships), but Momma insisted that I go on the tour. I wanted to be a Veterinarian so I did not understand why I had to go but I did. We had fun but it confirmed for me that I wanted to go to MSU because it is one of the top 10 Veterinarian schools in the nation. I had one other reason for wanting to go to MSU. It was 275 miles from home and my in-state school was only 63 miles from home. I would be far enough away from Momma and she would not be able to just pop in, but yet relatively close to home so I could check on them if I needed to.

MSU admissions people gave the Assistant Dean of Diversity my name and contact information and she made great efforts to recruit me to MSU. Dr. Williams came to visit my school, she called and talked to my Momma, she invited me down for Minorities in Agriculture Natural Resources and Related Sciences (MANRRS) events and helped to put together my

scholarship packet. My in-state school made contact with me but not to the extent that MSU and Dr. Williams did. The choice to come to MSU was easy, but Lord what did I get myself into.

Victoria: The urban farm girl

> The fact that the adult American Negro female emerges a formidable character is often met with amazement, distaste and even belligerence. It is seldom accepted as an inevitable outcome of the struggle won by survivors and deserves respect if not enthusiastic admiration.
> (Angelou, 1969, p. 14)

I am an only child, from a middle class African-American family. I am told I have some Native American in me. Actually, it's Cherokee. A great-grandmother on my mother's side was half- or something like that. I can still remember when my mother received her bachelor's degree. That was when I was in the first grade. I had a great childhood and everything I ever wanted until my father got sick in my sophomore year of high school. He passed away the next year so my mother and I became extremely close.

My father's family consisted of Southern farmers. Uncle Boo still farms a piece of the land, but most of it has been sold. I can remember going back to the "old" place outside Hollandale, Mississippi, where my grandparents lived. Granny raised chickens and Papa, my grandfather, did everything else. They had pigs, a couple of cows, and a few horses. He farmed until he was well into his 80s. I loved going "down South" and this is where I acquired an appreciation of animals. There were always dogs, cats, frogs, and other animals on or around the farm. I LOVED IT! Granny always had me working out in the garden and learning to cook, embroider, sew, and quilt. They had a little TV with an antenna until I was, I think, in middle school, but everyone had to do their chores. I would be there in the summer for a couple months with about 12 cousins and it was the best time of my life, except for the "outhouse." Yes, they had an outhouse, where Papa would "do his business."

I LOVED being in the country! I know it was my time in the South that helped me to love animals. Back in the Midwest, we lived on the outskirts of town. So we were close to the county fairgrounds, and my school was involved in some fair activities. This was my formal introduction to activities connected with 4-H. The girls used to make aprons for the sewing competition. I was always the tallest kid in my class, even taller than the boys; and as my grandma said, I have these big hands. Sewing and all that stuff was hard for me. I didn't like it. I wanted a pig like Papa's, so I could enter it in the swine showing. Can you imagine this big Black girl with a pig? That was my dream. But my dad said we lived in the city limits and I couldn't have a pig. It was against the law.

I can remember in junior high that the other Black kids (and there weren't many) thought I was crazy because I wanted to be involved in 4-H. Ally, my best friend (who also happened to be White), she didn't think I was crazy; and I would help her on her farm after school and together we entered her small animals in fair competitions and also entered HER embroidering and our pie items.

In high school, I was a member of Future Farmers of America (FFA), and my counselor also told me I needed to be in Future Homemakers of America (FHA). Mrs. Fink, my counselor, said it would be important for me to be in the right organizations if I really wanted to pursue a career in Agriculture. And especially because I wasn't from a farming family, I would have to show my leadership skills in the organization. I thought she made a good point, so I was not only a member – I was an officer in both the FFA and FHA organizations. Most of these times, I was the only Black person in those organizations and at annual conferences. The older I got, the harder that became.

I am a "natural-born " leader. Everyone, from my parents to my pastor, has always said that about me. I held several leadership positions in school organizations and was a good volleyball and basketball player, but people call me intimidating. Am I intimidating because I am tall or because even as a child I was determined? I knew I wanted to be a vet and run a small clinic. I figured I would probably go back to my hometown to run my clinic so I could be close to my mom. As I mentioned before, I was in several organizations at school, and the only positions I could run for were secretary or treasurer – but never for president or vice-president. This is where, for me, it was getting harder to be the only Black girl in an organization. Even my best friend seemed to be against me, and here's why.

Ally and I have been friends since kindergarten. We were quite the duo because she is White and I am Black. She is blonde and my hair is kinky. I was always much taller than she is, but we bonded over animals. Ally is a farm girl through and through. In kindergarten she brought a cat to school for show-and-tell. We became best friends because her cat, Miss Loretta, came and sat on my lap most of the day. We did everything together because I loved Ally's family and farm! Her parents never made me feel weird and they invited me over all the time. When I got big enough to help, I actually helped tag some of their cattle, and in my sophomore year I helped with shots.

Ally and I joined the FKA and she was always elected the treasurer and I was always elected to the secretary's position. But we were chairs of all the good committees such as conference, fundraisers, and state-fair reps. I told Ally that we did all the work and we should be president and vice-president. But Ally said she liked being the treasurer, and she didn't want all of that extra responsibility. I told her I was going to run for vice-president our junior year.

One day, out of the blue, Ally said, "Victoria, I don't think you should run for vice-president."

"Why?" I inquired, not really taking her suggestion seriously.

"Because I don't think you'll be elected, and it would be a waste of your time."

"What?" I was confused, but now I was listening.

"Well, a couple of us were talking, and they said that you would not get elected and that you would be wasting your time and embarrassing our school. They said you are not from a farm family and it's too hard for a girl to get elected vice-president. A girl hasn't been vice-president or president for ten years." Ally talked like she was stating the facts.

I got pissed and started to rant. "First off, who are 'they'?! And I AM from a farm family and I HAVE gone and lived on a farm every summer for my entire life. I've been involved in all kinds of 4-H activities! I've worked on your farm and I've won all kinds of competitions at the annual meetings and fairs! I hold the best GPA of all [FKA] officers at school and I hate being just a secretary. So who are 'THEY'?! And is that really it, or is it because there has never been a BLACK vice-president or president?!"

Ally rolled her eyes and said, "Here we go again. Why can't it be that I don't want you mad at anybody and that's why I'm not telling you who 'they' are? Couldn't it be that 'they' just don't think you're ready? Everybody at school loves you, and they're trying to keep you from being disappointed."

"Stop being stupid, Ally! Everybody doesn't love me. The Black kids think something's wrong with me because I love FKA and 4-H, and the White kids think something's wrong with me because I love FKA and 4-H. I can't win! If 'they' are worried about me embarrassing the school, it can only be because the school would have to back a Black candidate for vice-

president and tell the world that I'm the best person to represent our school on the executive board as vice-president. I want to do what I want to do! And to hell with all of ya'll! This Black girl is running!" Afterwards, Ally and I didn't speak for a couple of weeks. So I chose to consult with my mom about the situation instead.

"Mom, the kids at school don't want me to run for vice-president at the annual FKA conference. They said I wouldn't win and that would embarrass the school. They said they're trying to protect me, but I think it's because I'm Black and they don't want to support a Black candidate."

She asked, "What do you want to do?"

"Run for vice-president at the annual conference." I said with great dignity.

"Then let's do it and do it right!" She responded.

I think at the time, we were applying a relaxer in my hair, so we didn't continue with the conversation. But I'll never forget her saying that: "Let's do it and do it right!" There was no debate about the Black/White issue or the school being embarrassed or my peers not supporting me. We printed flyers, business cards, and a banner. My campaign slogan was - *A Leader With Experience in Both Worlds!* We gave away free popsicles at the conference, and I sent a flyer with my condensed resume to all the FKA chapter advisors and county extension agents in our state. Curiously, however, not one thing had my picture on it.

"Mom, why aren't we putting my picture on the banner?" I asked.

"Because people need to know *who* you are before they know *what* you are, just in case that makes a difference." I knew exactly what she meant. She didn't want the fact that I was African-American to be the issue. I already had one hill to climb just being a girl. I didn't win, but I was told it was the closest a female had ever come to winning vice-president in the last 10

years. My mom attended all the events in which parents were invited, and at the end of my sophomore year I knew I was going to in-state MSU.

My dad got sick during the last part of my sophomore year and in less than a year, he was dead. I felt as if my heart had been ripped from my body. He suffered at the end and didn't look like my dad anymore. He had wanted to come home at the end of his life, but he went to hospice instead. I wanted him to come home too, but Mom said she didn't want me to remember our home as the place her father died. She wanted only good memories associated with the house.

In the meantime, Mom kept me on task. I don't know how she did it, but she kept me going. Even after both of us were devastated by my dad's death, she kept me focused on school and my activities. My mother was amazing. Yet, I often felt heartbroken and physically hurt. One day, I was lying in bed and my mother stood in my doorway looking at me.

"Victoria, you can cry anytime you want and it's okay to be sad about Daddy dying. But we have to keep going." Her voice was so soft and very low, but I could hear every word she said.

I found myself almost whispering. "I can't do it…How do I go on like nothing has happened?"

It was then that she entered the room and sat on my bed. She rubbed my back for a while and then finally replied, "Because anything less would mean that Daddy died in vain. That all he wished and prayed for you meant nothing."

I looked at her as if she had become this whole other person from another planet. I wanted to scream but I knew better, so I reacted with as soft a voice as I could. "How can you say that, Mom? Do you know how much that hurts me to hear you say that? I can't act like

nothing happened. My daddy is gone, and he will never be here to see me graduate or anything else. It's just not fair!"

"We can do this because he would *want* us to do it! Just take it one day at a time. It's all we can do. Hold your head up and put one foot in front of the other. That's all I ask, and that's all he would have asked."

"Momma, sometimes I think I won't be able to take another breath, it hurts so much!"

"I know, Victoria…I don't know when, but it will get better as long as we stay together and keep focused. So just take a deep breath and go take Rudy out for a walk. I've been doing it for the last few days, and now it's your turn." She smacked me on the butt and I knew we had talked enough – at least, for that day.

After our conversation I felt this heavy, heavy responsibility to do well and be successful or my dad would be disappointed. Can you *imagine* how that felt?

Back at school, my teachers, aware of my ordeal, behaved nice and offered to extend deadlines for projects. But my mother would have none of it.

"No. You get your work done. Then they have no excuse for not giving you the grade you deserve. We are *not* going to give those teachers a reason to drop your grade-point average or mess up your dreams to go to college. Do your work. That way, we don't worry about them messing up *anything* for you. Just do your work." To this very day, I can still hear Mom repeating those words.

 I never asked for or received any special treatment and this would haunt me even when I got to MSU. Before Daddy died, we had chosen MSU because it was recognized for its Vet school and it was in-state tuition. My parents wanted to make sure they could help me financially if something were to happen or if I didn't get enough scholarships to cover a "full-ride." They

also wanted to be able to get to me quickly, within a few hours, if I needed them. After Daddy died, it was even more important for me to be close enough to Mom, just in case I needed to come home suddenly.

At MSU, there was this one professor, Dr. Williams, who came at me strong. She was the Assistant Dean of Diversity in the College of Agriculture, and she heavily backed my recruitment. What I never told her was that we had already decided I would come to MSU because they had everything I wanted and needed. Dr. Williams put together a scholarship package that included tuition and books. I also got the in-state grant and several smaller scholarships, which almost provided me with that "full ride." Dr. Williams also introduced me to MANRRS (Minorities in Agriculture Natural Resources and Related Sciences). Oh…my…God! That was the organization I should have been in back at high school. Beautiful people of color! People of Color who loved agriculture and who related to scientists, farmers, non-farmers, pre-Vet and Vet majors, *all* people of COLOR! I felt like I had just died and gone to Ag heaven!

Being a member of MANRRS came about for me for several reasons. I am a woman, I am African American, and I am in animal science, which is not historically African American or female. And so, being in that program afforded me the chance to travel to four different cities, meet recruiters from across the nation at the career fairs they host during their conferences, meet other people who are minorities from universities across the nation, and all this made me more marketable because I already had that experience in the career fairs before graduation. During summer orientation, I was convinced by my appointed advisor to declare Animal Science as a major instead of pre-Vet because, I was told, the program had a better variety of classes and research opportunities. Pre-Vet, on the other hand, had a strict graduation plan with little-to-no flexibility in scheduling. I remember thinking, "These people really want to give me such good

advice." Little did I know, however, that this decision would also haunt me my entire undergraduate career.

Javier: Plan B became plan A

I was born in Venezuela. I came to America with my mother when I was about 17 years old. My father and other family members stayed behind. In Venezuela, we don't classify ourselves by race as much as by class, but in America I discovered quickly that ethnic labels seem important. So I identify myself as a Latino.

Both of my parents are veterinarians. My mother is a beautiful woman and although she is petite, she is so brave. My mother wanted to come to America and learn and practice with some of the best in the world. She was not afraid of adventure. My father, on the other hand, was a tall man who seemed to be the shyer and less adventurous one. I also have a sister and she is married and working as a teacher. Her husband is a physician. As the baby of the family, I loved being with my mother. In Venezuela, she would take me to her clinic and out in the fields with her.

She demanded that we learn one additional language other than our Spanish and English. I chose French, so I am now fluent in three languages. My mother demanded that we speak English and she would often make me write reports in Spanish for my teachers and in English for her. Feeling a little cocky and a little pissed at this, I asked my mother, "Madre ¿Por qué me hacen escribir en Inglés?"

"Decir que en Inglés." She was demanding that I speak in English.

So I hung my head and rephrased the question in English, "Mother, why do you make me write in English?"

"Because one day we will go to America and you will need to be able to read and write in their language. When they read your papers, I do not want them to say this is done poorly. When they hear you speak, I do not want them to hear a strong Spanish accent. So I prepare you because it is my responsibility to prepare you for the world." She wasn't even looking at me when she said this.

Within a few years, she and I were making plans to go to America. I was surprised but excited about this. It would have been my senior year in Venezuela, but we made the move. It was no big deal to me to leave my school. I had a few friends, but not many. According to American economic standards, my family and I are considered upper middle-class and I was enrolled in an American Blue Ribbon school. Money to attend college was not going to be a problem, but my family stressed getting good grades and scholarships to support my college endeavors. I was always an excellent student, but I am naturally shy. I love animals and working by myself. Yet I was excited about the opportunities in America.

My mother joined a small practice in the Midwestern urban city where we lived. She had met these doctors at an international conference several years ago and kept in contact with them. They invited and sponsored her move to America. In Venezuela, my father had specialized in treating large animals and my mother specialized in smaller animals. So I have been exposed to all animals all my life. But my mother was always patient with me and would include me in her work in the field and in her lab. I knew as a little boy that I wanted to be a veterinarian.

My high school was in the suburbs of a Midwestern city, and it was a nationally-ranked high school with many awards for their curriculum and student achievement. It was 98% White. There were only a few Blacks and two international students – a Chinese girl and myself. One day, I heard a student refer to me as "the Mexican." I decided that was not a battle I was going to

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address because it was based on ignorance. But it made me aware of what they were thinking – that because I was Brown, I was Mexican and undocumented.

Walking down the hall at school, I heard someone ask, "Hey, do you speak English?" It was some sloppy-dressed boy with dirty blond hair. "No," I said, and walked on down the hall to wherever I was going. I remember thinking, "I speak better English than most Americans." But again, because I was Brown, they assumed I did not know the language. But it did not matter. My parents had stressed that all I needed to do was prove myself in the classroom with my grades. The immigration battle was not part of *my* war.

However, there was another battle to avoid. This was because I am tall, 6'6", and the basketball coach wanted me to join the team. When I told him I like football (soccer) much better, I thought his head was going to explode.

"You do play basketball, huh?" he asked.

"No, sir," I replied, trying to be respectful. "I have never played basketball, but I am good at soccer."

"You have got to be kidding me! Do you want to play, because I can teach you all you need to know about basketball, and especially with your height, we really need you." He was almost pleading, so I decided to lie.

"I have to help my mom after school at her job, so I can't go out for sports."

"Oh my goodness, what a waste! I can tell you're not finished growing and we could sure use you. You want me to talk to your mom and tell her how you would be helping the school by trying out?"

I think I said something like, "No, she really needs my help and it helps our family out, so I can't try out for any sports. Sorry, but thank you for asking me. I really wish I could." This

was also a lie. However, he was right about one thing. By my sophomore year here at MSU, I was 6'6", so I *did* have some more growing to do.

My parents had a huge influence on my decision to enroll at MSU. They said the vet school was well respected in the country. My mother had consulted with doctors at MSU's vet-med hospital and it was an in-state school, so tuition would be less expensive. I can remember thinking how weird it was that MSU was the state's agriculture school, but the pre-vet program or animal science was housed in the agriculture college. So attending MSU was the easy go-to decision because of their pre-vet and vet programs.

I was assigned Dr. Advar as my undergrad advisor. He was nice but straightforward, which I quickly learned at our first meeting:

 "Javier, we are so happy to have you here at MSU and in our pre-vet program. However, I have to tell you that it is extremely competitive getting into our vet school program. The university usually opens about three spots for international students."

I was shocked. "Why only three spots?" I inquired.

"Because it is extremely difficult to get into the vet program and international students tend to not do well, with the writing, research, and other demands of the program, and they drop out more often."

I wanted to ask, "Why aren't they better prepared?" But I didn't dare. So instead, I asked, "What courses can I take to better prepare for vet school?"

"Well, I usually tell the students who might struggle to have a Plan B."

I thought to myself, okay, but that wasn't what I asked.

Dr. Advar continued, "Now there is nothing wrong with a Plan B. Everyone who is successful has a Plan B. Yours should be majoring in animal science. It will prepare you to work

in the zoo, on a farm, or some of those kinds of careers. Our students have been successful in such jobs."

"Dr. Advar, that is great advice, but I don't want to work in a zoo or on a farm. My parents are Vets and I want to be a vet also." Whew, I said it.

"Well, that's fine and it's your choice, but if I were you, I would think of a Plan B. What would you do if you don't get into the vet program?" he asked.

Hmmmm. I never considered *not* getting into the vet program or *not* being a Vet. Wow, Dr. Advar must really be looking out for my best interests.

He continued, "So let's not worry about the pre-vet classes and get you headed in the direction of animal science. There really isn't that much difference between the two degrees. I think that's a better fit for you."

My parents had guided my initial decision to become a Vet, but it became *my* decision when I was in junior high. Now my advisor is telling me to put my Plan B front and center and develop it. I better not make a fuss and just go along with the classes he has me enrolled in. After all, I thought, he does seem to know what he's doing.

After a few semesters of taking classes, I don't think that it is completely unnatural or unfounded when you realize that this is what you want to do after you're in college. But my major influential experience was working in Dr. Nara lab on an E-Coli and salmonella research project, and the work made it click for me. And then it became 100% my heart's desire to major in animal science. But I knew my parents would freak out, so I continued down the path of pre-Vet and applied three times. The courses I had taken, however, did not prepare me for the entrance exam, so I gave in and told my parents I was going to graduate school and would not try again to get into Vet school. As it turned out, I felt happy with Plan B. I was no longer walking

in my parent's footsteps; I was creating my own path. And when my parents realized I would eventually become Javier, PhD, then and only then did my parents get excited for me.

Participant Narratives

In this section, I discuss thematic findings that highlight the experiences of the three participants in depth. In their respective interviews, each was asked to identify and expound upon her/his experiences as African American and/or Latino alumni with an A-STEM degree from a PWI. The research questions were designed to explore the contributing reasons for the successful completion of their undergraduate programs. The unstructured, open-ended interview questions were designed to enable each participant to describe and characterize her or his own public and private spaces through counter narratives, which challenged more traditional narratives. The structures of the narratives were as follows: Drake's narratives were (a) Belonging: The only Black in a class of 250 students, (b) Determination: A better option; and (c) Navigating the system: A Brotha can make it. Victoria's narratives are (a) Belonging: When being Black, tall and female doesn't 'fly'; (b) Establishing networks: MANRRS, career fairs, and Cargill; and (c) Navigating the system: "Major" negotiations and making it work. The narrative structure for Javier was (a) Belonging: Cowboy boots, hats and wranglers; (b) A dream deferred: Plan B; and (c) Navigation to graduation: Just straight-up White people.

Drake

I will never forget moving into the dorms. I was put in Barnmaker Hall on the fourth floor, which at that point in time was the agriculture floor, so there was no one there but Ag students. I wasn't in a suite or anything. I was just in a normal dorm. It was different because what with sharing a bathroom with all those guys, it got pretty dirty, especially on weekends. My roommate was 29 years old. So that was different because I thought I would be hooked up with

somebody who was my same age. And he wasn't an agricultural student at all, but he was on the

agriculture floor. But he was real nice and everything. So I didn't have a problem when it came

to roommates.

Belonging: The only Black in a class of 250 students

> "Once when I walked into a room/
> my eyes would seek out the one or two black faces/
> for contact or reassurance or a sign/
> I was not alone"
> Audre Lorde – Between Us (1971)

It was just different because at high school there was a majority of White people, but it

was still like you had your Black students, you had your Latino students, and you had your

students from different backgrounds. When I got to the College of Ag – and even on my floor,

like I'm the only Black person on this floor – it wasn't really the diversity I was used to. Even

when it came to the College of Agriculture, there was diversity. But it was sprinkled in, few and

far between. I remember being in some lectures where I would be the only Black person out of

like 250 students.

I had a lot to get used to, but I didn't necessarily let it get my hopes up or anything like

that because, for the most part, people were welcoming and they were helpful. I was a normal

student, just like everybody else. I would show up to class and everything, and I didn't really run

into too many problems when it came to anything related to race matters at all. So that was a

good thing for the most part because I know most people would expect that I would run into a lot

of problems because it's the College of Ag, and people coming from smaller towns, they don't

have these interactions. But when I did have those interactions with people, I would use it as sort

of a teaching experience just because I know that many times they had never had contact with

somebody who was Black before. So if they're really just basing it all on what they see on TV (a

lot of times, we're not portrayed positively), they're going to have these thoughts in their heads already. That took some getting used to.

I did not receive any special treatment because I am Black. The College of Agriculture just doesn't work like that. I never felt as though anybody was really holding my hand. I would say there were some challenges, but not because I'm Black. I believe it was because I don't have that agriculture background. A lot of people, they came from these backgrounds. So they knew a lot of things and they had sort of a heads-up on me. They didn't have to study as much because they had been around it all their lives. I had to spend more time studying on it. But I guess a good thing about that is I was able to see things from a different angle – or perspective. The challenge was not my race.

However, it was funny to me that the professors would know my name because I would be the only minority in class. I sort of felt that I was a delegate for my race. I had to make sure I was showing up to class on time, not sitting all the way in the back. I normally sat in the middle, but I made sure I was visible and got my work done on time. I wanted my professors to see that I'm a hard working individual, and I'm not here because of special circumstances or because they needed a Black person here. I'd show up to class, show up to my lecture, even when I was tired or would rather be asleep. I needed them to know that I was here to learn, so I took notes every class.

I did get used to it, being the only Black (and often the only minority) in class. It wasn't a big deal to me anymore. That first semester it took some getting used to, but after that I was used to it. It was not a problem anymore.

I don't want to think that race matters, but I do remember this one semester. I don't remember who my professor was when I took physics, but he just seemed like he didn't want to

help me out at all. He was like, you either get it or you don't. I got that from some of my professors. They had an elitist attitude like, "Well, if you don't understand this, then I don't know what to tell you. You're not smart enough." Kind of like that. They didn't say it in those words, but you got that vibe from them.

MSU in general just took some getting used to. I wasn't a part of Black Student Union (BSU) or anything like that my freshman year. The only groups I had joined were the philosophy club, the pre-vet club, and I was a part of MANRRS as well, but I didn't join the BSU then because I had heard some not-too-good things about the BSU. I was skeptical at first, but I wanted to join. I needed to join for my sanity and also to be around people like me. I missed being around other Black students on a daily basis. MANRRS was great, but we only met once a month. BSU met once a week and they were always doing things. Plus, the students there were majoring in other areas besides Agriculture.

Then I was a part of the Developing Scholars Program. I talked with Mrs. Chavez a lot and she was really helpful. She kept my focus on what my goal was. My faculty mentor through Developing Scholars was Dr. Nara, and he was also my advisor for graduate school.

I feel like I have a good relationship with Mrs. Chavez, Dr. Williams, Dr. Nara, and Dr. Chalmers. I always refer to Dr. Williams as my MSU mom because she was always taking care of me. Mrs. Chavez has always been helpful as well. So I have a good relationship with them. I still keep in contact with them, and I actually need to notify them about what I'm planning on doing because they always ask. They're always excited about everything, and they've just always been supportive. Then if they saw me doing something I didn't need to be doing, they would correct or really check me and that was helpful, especially when it came to getting involved in student organizations.

I told Mrs. Chavez that I was in philosophy club and also in public speaking because I had done well in my public-speaking class and one of my professors had told me about debate club. She thought I would be real good. The more she talked, the more I liked it. I went to a few of their meetings, and I was ready to join the team.

Then one day, Mrs. Chavez said to me, "Drake, don't spread yourself so thin. It's okay to be in these different organizations and clubs, but remain focused on your degree and DSP. Your research is going to take a lot of your time outside of class. It will be better for you to do a few things well than a lot of things mediocre."

She went on to say, "The debate team might be good, but how is that going to help you in the future? – Or philosophy club and things like that? You came to school here at MSU to get a degree. Stay focused on that please, sir."

Mrs. Chavez had a way of putting things into perspective – about which things I should really focus on and not to just overburden myself with outside activities.

I took her and Dr. Williams's advice. I didn't join the debate club, and I stepped away from some other things too. It was just a learning process; I had to learn how to say no. This was hard to do because in high school, I was active in a lot of student organizations. In fact, I kind of got *too* involved in student organizations, but school was easy for me. So I could get everything done and still make an A in my classes. At MSU, there were benefits to being in MANRRS and BSU. MANRRS was very helpful because my first internship came as a result of my being at a MANRRS conference. The internship was with the USDA. I met a lot of people from networking through MANRRS and that really helped me professionally, especially being in the presidential role. I had to know how to go and delegate certain responsibilities, not take on all the tasks myself, and know how to prepare and organize. I really did learn a lot from that experience.

At one point, I was president of MANRRS, head delegate for BSU, treasurer of the debate club, reporter for the college's newsletter, DSP researcher with Dr. Nara, job-holder (because I lost my scholarship my freshman year) – and still registered as a full-time student.

It was here that Dr. Williams warned me, "Drake, you are doing too much. And remember, I see your grades. So you can't fool me. You don't have to say yes to everything, and you need to prioritize. Come by my office later today and if I'm not there, stay there until I come. We need to look at your schedule. We are not going to have your momma calling me, talking about how I am overworking her baby and letting your grades drop. No way!"

We went over my schedule, wrote everything down, all assignments, all test dates, report dates, work schedule, organizational meetings – I mean *everything*. And there wasn't a blank spot on my calendar.

"I told you you're doing too much. So now let's figure out what we can cut out." She was very demanding, but it was in that "mothering" kind of way.

"I can't cut anything out!" I said in total frustration.

"Yes, you can. And yes, you *will*," she snorted. "Now tell me what's on here that you don't like -- *excluding* anything related to your classes." Damn, she could read my mind.

"I have to be honest with you, Dr. Williams. I have to keep MANRRS and BSU because I think I would lose my mind if I weren't around Black people." At my pronouncement, we both laughed. "But I'm sick of debate and the newsletter. The editor always marks my paper up, so I can hardly recognize my own work when the newsletter comes out."

"Okay, stay in MANRRS." There was an unspoken understanding between both of us – MANRRS was a pet project for her. It was her "baby." As to BSU, she said, "Give up being a head delegate, but stay on as a parliamentarian – someone who doesn't put things together or

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organizes events. Let's talk to Mr. Mower over in Financial Aid and see if we can get you in-state tuition and the Redmont scholarship. Then, you quit that other job. I'll call him and make the recommendation. Now how many years have you been with the newsletter?"

"Two."

"Okay, you can quit that too. But I'll need you to update your resume and get it to this office. Now erase all those activities from your schedule, so we can see what it looks like now." Somehow, it was fun rubbing all that stuff out.

"Dr. Williams, you're amazing. If you can get me in-state tuition *and* the scholarship, I would be so grateful!"

"I'll do what I can if you do what *you* can…Hey, are you pledging?"

"Nope, not this semester." I said that with a big grin. She knew I really was pledging, but this was the game we had to play because you're not allowed to let anyone know. I continued, "But you know those are some phenomenal brothers. They get recognized on campus, they get the best internships, and they're respected all over the country. I'll be a part of the frat till the day I die."

"Go on with yo' bad self!" she said. "You let them grades drop and you'll not only have the brothers to answer to, you'll have *me*!" I could tell she was proud of me. Now that I think about it, that's probably why she took the burden of all those activities off me – so I could pledge and become academically successful. In the end, I got both the scholarship and in-state tuition.

Being in MANNRS and BSU helped. I was with peers who looked like me. I was also able to help the ones who came in under me. One thing I noticed about K State is that the numbers for Black students and other minorities began increasing from my freshman to senior year. My first semester, I didn't see many Blacks. The second semester, a lot of people just

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weren't able to come in because of their grades or financial reasons. But in 2008, I noticed a lot more Blacks because Dr. Williams was recruiting. Retention was much better too, and it kept improving each year. I was seeing more and more people of color in the College of Agriculture.

My junior year, I was at freshmen orientation, telling them about MANRRS and how it helped me and how it could help them. That was when MANRRS membership started to grow. I told the new students what they should focus on if they were serious about animal science and veterinary medicine. I advised them to speak with professors and administrators – like Dr. Chalmers over in Vet Med, because I knew he was really trying to increase diversity. Getting in contact with him and just going through the steps, they knew what they needed to prepare for when they did actually apply.

Determination: A better option

Dr. Nara is over in the College of Veterinary Medicine. In Developing Scholars, they pair you up or team you up with a mentor in your field or in your future field. It was really helpful just to have him to talk to and just help me focus on what the ultimate goal was. But it didn't start out that way.

Dr. Advar was my undergraduate advisor, and he was very helpful. If I had any questions, he was always willing to help, even in cases that came much later in my collegiate career. He would actually tell me which professors to take, which ones he recommended. He would say, for instance, "I haven't heard the best reviews about so-and-so. I would advise you to take this class another semester." But it didn't postpone my graduation. He just knew of the better professors when it came to teaching the subject.

Dr. Advar has been a student advisor for many years; he already knew what the curriculum was and the course guidelines I needed to complete to get my degree within four

years. I guess it was my own fault it took longer. I was naïve. I never had my schedule planned

before seeing him. We would always pick through my schedule together. But it always worked

out – because he always made it work. He always took time to make sure I got the courses I

needed.

In college, I was adjusting to the whole email system. I wasn't used to checking my email

every single day. So that was something, just having my grades posted online. That was a

completely different world to me. I didn't even know how to calculate my GPA.

If I had problems in my classes, I went to professors and spoke with them; but I didn't

start doing that until my sophomore year. My freshman year, I really didn't speak to my

professors about anything. I realized later you've got speak to your professors because let's say

you're on that borderline between a C and a B…and they saw that you actually put in the work

and they saw that you came to their class every day. They might just bump you up to that B, so

you never really know until you try something. I would just go and talk to them if I had any

problems with anything. Often, they were helpful, especially in the College of Agriculture. The

professors there were very responsive. But in classes outside the College of Agriculture, some of

them weren't really helpful at all, especially in physics. I would just leave them alone and go to

tutoring. It was like, "Well, I'll go and speak with a tutor" or "I'll speak with somebody I know

who did well in this class." But I really didn't come across that too often. Mrs. Chavez, Dr.

Williams, Dr. Nara – they were really instrumental in helping me keep focused and encouraged.

Yet there were times when I would get discouraged and then they would give me pep talks and

help me bring myself up.

I was exposed to a lot of different things while at MSU. I was able to get research

experience, which helped me actually secure different internships and positions. It wasn't

because of my race; they saw that I was a hard worker. And Dr. Nara will tell you in an instant if you're messing up. He won't hold his tongue when it comes to that. He has that really honest personality. It wasn't because of my ethnic background, but he saw I was in the lab, working early or late. I used to come in real early or stay real late. I felt I had to do that to prove I wasn't one of those lazy Blacks they see on TV. Plus, I was thrilled and excited and enthused about what I was learning. Whites often don't want to see you succeed just because of your background, but you have to be a hard worker and let them see that you are a hard worker.

Vet school was another matter. I never applied for vet school actually. I decided to get my master's in public health instead. That was a big life-changing moment, and it was because of Dr. Chalmers. I met him at a BSU meeting when he came to us about public health. That was when I became interested in the field. I never knew what public health was or what it entailed until my junior year. If only I would have known at a younger age, I would have gone to school for public health, which is what I'm doing right now. In a way, I've been around it all of my life. My mom is on the Black Family Health Awareness Association in our hometown. Public health administrators (PHAs) go throughout the community and they develop these health fairs for the community so people can get free health screenings. PHAs also distribute educational materials for preventative practices.

My mom would make sure we were connected to the right people and organizations. I had no idea back then that this would become my life's passion. Now, I realize I've been involved in public health since I was younger and actually saw the good it was doing for the community. When Dr. Chalmers told me about the graduate program in public health, I knew what I needed to do. With his influence and guidance, I was able to utilize the courses to map out a degree plan and apply. I knew it was the right move because public health encompasses

animals, humans, environment, everything! I just completed my master's in public health with emphasis on zoonosis and infectious diseases that can be transferred from animals to humans. My animal science background was an excellent path. Public Health was perfect for me. As they say, "Life is good!"

Navigating the system: A Brotha can make it

My peer interactions were few and far between, and if I saw anybody that was a minority in my classroom I'd be like, "Hey, let's get together and study" or "Hi, my name is Drake." I would introduce myself to different people. I would sit with anyone, including Whites, in the dorm's dining hall facility – eating lunch or dinner, or just talking with them about certain things. A lot of times, I met people who were in my major who I normally wouldn't see in class. If it weren't for MANRRS, I wouldn't have had much interaction with other minorities. Since there were so few of us, we were not in the same classes. And even though we might have the same class, it would be at different times. Often, it felt like we were kept apart, but I have no proof of that. I just thank goodness for MANRRS. We would meet, collaborate on schedules, and give each other advice about professors and often study together.

I got involved with MANRRS because of the freshman orientation class in the College of Agriculture. Dr. Williams was there, and she had the president of MANRRS with her. I was like, "Hey, there's a Black professor supporting a Black student. Let me make sure she knows I chose to come to MSU. I want her to know I'm here." So I did, and Dr. Williams told me when the meetings were held. She encouraged me to come and be a part of the organization. She said there were many opportunities for members and she expected to see me at the next meeting. We talked for about a half an hour and that's how I got involved in MANRRS.

My first year, I didn't know how to study. My study skills weren't the best because in high school, honestly, I could do the work an hour before it was actually due. I was on the drum line in band, and marching took a lot of my time. Once marching season was over, band didn't require as much of your time. We were just fooling around in there or else we were doing our homework. I would just do it in that one-hour and get everything done. So I didn't have study skills at all. I had to develop that.

I thought that college would be like, "Oh, it's not going to be that big of a difference from high school." I found out learning is on a completely different level there, especially because you didn't have as many assignments. Class lectures were geared towards your test. If you didn't do well on the test, those low scores could really affect your semester. So I had to learn how to study, but it was too late for my first semester at MSU. Then, of course, my peers would help advise me because they were going through the same thing or had been through the same thing.

Veterinary medicine is a very competitive field. You have all of these people applying to get in, yet there are only a few spots available. There aren't that many colleges of veterinary medicine in the United States, especially for the amount of people that do apply to actually get into the school. I soon learned it was going to be impossible for me because I was not at the top of my class in every subject.

As I mentioned before, my roommate was an older White guy around the age of 29 or so. He was not a pre-vet major, but he loved this floor and asked to be reassigned. Sometimes my roommate would sort of discourage me. He wasn't trying to. People can be discouraging without knowing. I guess he was really trying to inspire me, but it wasn't working. He would say offhandedly, "Hey, man. My roommate from last year would be up till 4:00 in the morning,

doing calculations and different things like that. I think you better pick up the studying, or you're never going to make it."

I would tell him, "Man, I'm not up for that. That's just not me, so don't even think I'm going to be up at 4 am. I'm not going to do that." Because I didn't have good study habits, I thought what I was doing was good enough. After midterms, though, I had to struggle to get my grades up. I was failing several classes. I knew then I had to find someone to help me develop better study habits – but not at 4:00 in the morning.

I'm not one of those people who can just cram. And when I'm sleepy, there's no amount of coffee that can keep me awake. The tutoring center helped me realize when the best study time was in the day and that I could study maybe 45 minutes to an hour. The center also helped me to realize that spreading my studying out over several days prepared me better for exams. So instead of cramming, I would spend an hour or so several times a day for a week before a quiz.

My first semester, I didn't really do well, and I lost my scholarship. I needed a 3.5 and I only got a 2.8. By midterms, I was digging myself a huge hole. So that was a real wakeup call. I just really had to focus and reevaluate how I was actually studying and how much time I spent towards it. I learned from one of the many sessions with Dr. Williams how to be successful in class and take notes. It was my study skills, not anything else or anyone else. That was the big issue my freshman year.

I was the only Black in a class of 250, and the professors always called on me to answer for my people. Wasn't I a good representative "for my people," and who else is going to set these White students straight? But often I would get so nervous I couldn't make the point I wanted to, so I think I still confirmed for them that we, as a people, are "stupid."

There were other obstacles. For example, I discovered there wasn't a single Black barbershop in our college town at the time. But my cousin told me about Akeem and that's how I started getting my haircut. Thankfully, somebody like Akeem was there who was able to cut my hair. So that was one hurdle.

But the real major obstacle involved just preparing myself and taking the actual time to study instead of goofing off or playing video games. I would have negative thoughts all the time. Those thoughts haunted me constantly. I would think, "What if I don't make it to the College of veterinary medicine? Am I a failure? I'm spending all this money on out-of-state tuition! I don't want to be one of those people that go to school, but not able to complete it because they run out of money." Money was another huge issue because, as you know, school is very expensive and it gets more expensive each year, and I had just lost a major scholarship. My mom could help – but not much – and my extended family would try to help, but it would be limited.

I knew all I could really depend on were scholarships and loans and I had just messed up. Now, I would have to depend mostly on loans. Then I saw these White students and they were getting help from their parents who saved up for them. My mom didn't have that opportunity to actually save up for me. So it was pretty much, "I'm out here on my own and if I fail, then I'm going back home and that's it. There are no second chances." I had to get back on track and find money to complete school and find another major. Then, I would not be a failure.

And I wouldn't be a failure if I could get to do research with Dr. Nara, and the Developing Scholars Program (DSP) would also pay me to do that research. I was happy that Dr. Nara chose to work with me, but I had to submit and resubmit a paper to him before he would agree to work with me. I also asked Mrs. Chavez to talk with Dr. Nara and tell him I would be a good student to work with on this research project.

All these problems whirled around in my head. I could remember Dr. Williams telling me to get involved in MANRRS and BSU. I would have opportunities to present at conferences and get my name out there. Through BSU, I would be able to work with the Big Twelve's Best BSU chapter (they had won that award two years in a row when I started, and I hear now they have seven titles under their belts). I finally quit the pre-vet club because it was not benefiting me.

I asked Dr. Williams if she could get me on search committees and involved in other things. She said sure, they were always looking for students to help with the search process. In this way, I thought administrators, maybe even the president of MSU, might take notice of my involvement.

If I were asked to make suggestions to students of color based on my own experiences, I would say develop study skills at an early age. Even though you might not want to stay after school to work on a project, do it anyway. Talk to your teachers. Go to the library and actually make yourself study – because you have to do that if you want to succeed. Be open-minded with the people you meet in school. Don't hang out with people because they're Black people. Widen your friendship base. Meet different people from different cultures because you can learn so much. My cousin is four years older than me and he tried to give me advice about school and how to succeed. He told me something that always stuck with me.

"Drake, man, what school you wants to go to?"

"Probably in-state, to save money, but I loved the trip down to the Black Colleges during spring break. That opened my eyes to a lot!" I said this proudly. I wanted him to know I was a man and I knew something.

My cousin replied, "Man, don't go to a HBCU because they don't represent the workforce. When you graduate, you will be working with all different kinds of people. This is a

global society now. I work with Chinese and a dude from Germany. You get just one point of view, and it's unrealistic. You're not going to be working with just Black people, so why set yourself up to fail. The workforce is global, man, I'm trying to tell you."

"Well, you know I was accepted at MSU," I said again, proudly.

"Yo! You got the grades to go anywhere, so make sure they bring their best game to you."

"Game?"

"Yes, fool! Da M-O-N-E-Y! A whole lot of places would love to have a tall, great-grades, non-basketball-playin', white-boy-talkin' brother like you at their school. Just make them work for it. That's all I'm sayin'."

In a way, there are times when you just have to be "selfish" – not selfish with others, but selfish with yourself. You are in college for one reason – to get your education, and sometimes you do have to learn to say "no." So speak with your faculty, especially if you're having problems. Don't wait until the last minute or until the week of finals and email them saying, "Oh, I forgot to turn this in. Can I turn this late assignment in?" They're not going to let you get those points. So talk to them early. Don't let a semester of poor grades dictate your future. If you're having problems with grades, don't make that a reason to switch your major. But if you do need to change your major, then change it because you see the major as a future career, not a job. That was a big obstacle for me. Just don't be afraid to change. I would say, "Do what's best for you."

Victoria

My relationship with MSU started with Dr. Williams, who was the assistant dean at the College of Agriculture. She made those visits to the high schools, and she started mentoring me in my senior year. She told me about the MAPS (Multicultural Academic Program Success)

program and urged me to get involved with that. But unfortunately this was my last year to exhibit in the Midwest County Fair. And since the fair and the MAPS program were at the same time, I initially told her no, because I wasn't going to miss my last fair and go to college early. So Dr. Williams actually drove to Midwest City, where she had to convince me that being a part of MAPS at MSU was, I don't want to say "important," but a little more *advantageous* than attending my last year at the fair. This was a really huge, gut-wrenching decision for me because I had been showing at the fair for, at that point, eight years. Finally though I decided to enroll in the MAPS program and my program of study was Animal Sciences and Industry with a pre-veterinary emphasis.

Belonging: When being black, tall and female doesn't 'fly'

Freshman orientation was my first class in the College of Ag. Every time we met, there were different speakers from the college – a variety of agriculture professors or professionals who I met. It was exciting, but I was the only Black in the class, and my worst experience was in a class where I had no faculty support. I ended up "taking one for the team" when we had a major project due and we were asked to work in groups. The professor did not group us though. Instead, he told us, "I would like for you to form groups, no more than six in a group, and then I can hand your group leader the complete assignment."

Several groups quickly gathered, so I couldn't join them. Damn, here we go. Let me get up quick and go to this group. "Hey," I would ask, "You have room for me?" They would look at me like I was from outer space and just shake their heads no. I would go to another group, but get the same results.

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"Dr. Whatever, can you just assign me to a group, because no one is going to let me in unless you say something." I remember telling him this in a deadpan kind of way, but I was so sick of group projects. I hated them.

"No, just pick one. There's a group over there with four. Just go join them." His response was so typical. He didn't see the problem – or else he ignored it. So I went way across the room to the group with four students and sat down with them. They kept talking like I wasn't there. Then I turned around in the seat so I was facing the group and I said, "What do you want me to do? Just tell me, and I'll get it done."

Ms. Shiny Belt-Buckle Rodeo Girl said, "We have it all mapped out, so it's fine. We can do it."

"But I can help and I want to. I have to help; it's *my* grade too!" I guess it came across too forceful because Rodeo Girl's eyes got all big. She pulled her head backwards, away from her torso, as if she had the guts to say "Whooooa" to me.

"No," she said, "What I meant was that we all live in the scholarship house and it'll be easy for us to just get it done. You'll get your grade; it's really not a problem." But I heard something different. What I heard was, "Since you can't live in the scholarship house (because you *can't* possibly have the grades to live there), and we don't want to be bothered with you, then you should just sit back, Negro, and let the smart girls get this done. We don't mind 'carrying' you!"

Well, whatever… I was just about ready to do my own project all by myself. But I had to try one last time! "No, no," I said. "Call me and I can come over. Just let me know and I can rearrange my schedule. I can meet with you guys anytime but late afternoons. That's when I have to work," I tried to say this in a nice way, so I wouldn't come on like Ms. Intimidation.

By the next class, though, no one from the group had called or e-mailed me about the times to meet. I was working on my own project anyway, putting together my own thing – just in case… but I still wanted to appear concerned.

"Hey, guys," I said matter-of-factly. "I never got a call or an e-mail. What time did you all meet?"

Rodeo Girl replied, "Oh, I e-mailed you to let you know the only time we could meet was right after class today around 4:30. So please come. We've actually divided up the work, it was easy to do after dinner the other night, and so everything has been assigned."

"Well, I'm great at doing PowerPoints, so maybe I can take the materials you guys put together and make it look consistent and the same, like in the same font, or I can add pictures or find some charts and graphs to enhance your points." Again, I was trying to sound as nice as I possibly could.

"Oh, that's okay. My Shadow #2 is already working on the PowerPoint portion, and we don't need charts and graphs, so we got it covered." She ended this triumphant statement with a nervous sort of laugh.

So on the day of class presentations, I went down with the group and they presented all the materials on a PowerPoint that looked like it had just been whacked out. I stood there and said nothing. When we finished, Dr. Whatever asked, "Who did what?" They reacted with their usual nervous laughter and then named off all the parts of the presentation and who contributed what.

Was *my* name mentioned? No!

After class, I went to Dr. Whatever and told him I made several attempts to work with the group, but they would not e-mail me or even include me. They divided the work between

themselves and left me out. I told him I had completed my own presentation, which had charts and graphs, and I could turn that into him. But he said no. This was supposed to be a group project, not an individual project.

I actually got a D for the course because the group project was two-thirds of my grade. I can remember saying to myself, "Well, I just took one for the team."

Even with my background, even with my choice of degree, there are still barriers between White peer groups and me. I can't even tell you the name of one person who is not African-American in the entire College of Ag whom I am a friend with. Not one.

The one person I did establish a friendly relationship with was African-American. It started off in a weird kind of way. We worked in a group project together and she turned out to be an amazing person. We kept in touch with each other throughout the entire process. On the other hand, though, my White peers were a trip!

I knew that my proud, statuesque African-American (non-European) persona was a problem for them. I am 5'8", and probably 5'10" with my short-stacked Afro, so I had got that reaction before – that I could appear "intimidating." But if they would just take one *freakin'* minute to get to know me, they would find out that I am really not that way at all. It baffled me that my white peers would feel this way about me – and sometimes this reaction came from my own people too. I knew I could make Whites feel more comfortable with me if I did my nails a certain way or if I wore a long weave. But that just wasn't me, and it still isn't. So I never try to conform to the European standard for beauty. As far as I'm concerned, what you see is what you get.

Establishing networks: MANRRS, career fairs, and Cargill

Since I was already in the MAPS program before my first day of college classes, I already had a built-in group of associates. I had already been to classes with them, and I also talked with them during dinner and study sessions. In addition, as a member of 4-H and the FFA, I was taking trips to Stone Springs and the campus too. So I was familiar with the campus, familiar with some of the kids, and honestly, going to class the first day it was just like, "Wow! This is college. I have to walk to class. Nobody is going to tap me on my shoulder and say you have two minutes until class starts." So it was really exciting, but it was a little scary because you definitely have to be self-motivated. You have to keep yourself together – because there are so many other things, so many other people who may cause you to stray from your plan and your goals.

I was invited to go to the activities fair at the students' union the first week of school. There were so many booths and tables. And everybody had a pamphlet or a flyer they wanted to hand you. It was actually kind of overwhelming. However, I was able to pick through the grass and find the flower and that was MANRRS. First, I had to decide how I wanted to use my time because my attention span isn't that long. I had to be involved with something that did not meet every week or twice a week. So I picked MANRRS because they met once a month, in addition to the fact that this was the organization whose membership was made up exclusively of minorities who were in the College of Ag and other related fields. I thought this organization was more appropriate for me than a pre-vet club or a Greek-letter club or organization.

Being involved in MANNRS was definitely a great choice for me. MANNRS helped me to establish camaraderie and build on the few friendships I already had. I got to go to their national conference every year as an undergrad. I established relationships with employers at

career fairs, which resulted in my internship with Cargill for one summer. Classes, however, were another story!

It's hard enough when nobody wants to be in a group with you – or you do get in a group and they don't want to communicate. Honestly, I think women who do not look like me were more apt to not be conducive to my learning – much more so than a guy or men or even professors.

I never got the opportunity to work with faculty on any research projects, but there were several times when I was in a group with other people and our group dynamics were not working. Once again, I was not being included in the assignment and I just needed that faculty member to step in and say, "Hey, you guys need to get it together because you're *all* in this group, and this assignment needs to be done."

Well, the thing is with peers, especially minorities, it is the crab-in-the-bucket mentality, so because I was graduating and because I was in my last year, you know, people really didn't want to talk to me – because *they* weren't graduating and *they* weren't getting their degrees. So, that's like I said, I relied on my couple of friends who were getting their degrees; but everybody else, I really…I don't know. I wasn't looking to them for support.

Other ethnic minorities? I've never relied on any of my minority peers in the College of Ag – ever. There's an unspoken rule that unless you *are* in with them before you get into college, you're not going to get in with them *now*. And I *didn't* get in with them. I *couldn't* get in with them. It's just, it's kind of like, the kids in the schoolyard who only play with their group of friends in their class – that mentality continued into college. I know that being introverted did not help. I am not an extrovert, first of all, so I'm not going to go up to you initially because I have to figure you out first.

The college provided several events to try to put students together, such as the Watermelon Feed at the beginning of the year. I went, but you will never see me eating watermelon in public around White people. They provided these opportunities, but it didn't get the job done creating new friendships and getting everyone from different backgrounds to meet and become friends. I went to everything, trying to make sure I fit in, but that didn't really work. Nor were the professors and administrators really pushing it.

One of the most challenging things for me was staying engaged, actively listening in class, because it's very hard for me to give my attention to something I don't think is worthwhile or has value. That has been me since high school – middle school. So I think that was one of the hardest things – remaining active in my learning process because it's easy to get zoned out, being on the computer, playing a game, and not listening because you're hearing what they're saying, but you're not really seeing the connection. And I think seeing that connection between what the professor was saying and what I'm actually going to do in the real world was the biggest key I needed because that's the key to my attention.

I knew to be successful I had to be a part of the MANRRS program because all of Dr. Williams's students got great internships and job offers. I joined and I immediately started trying to figure out how to get an internship for myself. Dr. Williams had a ton of companies come to the career fair, and that's where I interviewed for several internships my sophomore year. Nothing is handed to you, however. You have to have the knowledge, the grades, and the skills to get on with Cargill and other companies. But being one of Dr. Williams' students was a bonus because of her relationship with Cargill, which helped many students at MSU.

I actually interviewed for a position with Cargill, but I didn't get it. I wasn't the fit they were looking for, and actually I was a sophomore at that time. They said I didn't have enough

experience for that position and my thinking was well, if you're looking for someone with experience at this age, you're not going to find anybody because we don't have experience. It's like the carrot and the stick. It's always in front of you, but if you don't let me reach up and get it, we're both going to be out. So I interviewed again my junior year and basically somebody, a friend, had to drag me into the career fair because at that point I was done with Cargill. I had already interviewed, they said I didn't have enough experience – but fortunately, this time I got the position. That's why it was important to stay focused on grades, internships, job offers, and graduation.

One of my main focuses was that I had to continue to keep my grades up for scholarships because there were people who didn't think I was going to succeed. There were other people I saw and I thought *they* would – but they *didn't* succeed and I just, I had to get out of there in four years. That was my goal. I found myself working with people I didn't like or who didn't respect me, but I had to put that to the side so I could get good grades and keep my scholarship. The scholarships I was able to receive were for minorities only, for minorities in the College of Ag, or even for those who just wanted to major in Animal Sciences, not education or engineering. I could hear my mother in my thoughts telling me, "Keep moving forward and do the best you can."

I needed to get out in four years because I wasn't there to play around. I wasn't there to do anything extra. When I went to college, I knew that the goal was to get a degree, and I needed to make that happen the quickest way possible – because I didn't have those resources that other people may have had.

As for university resources, I really don't recall using a lot of that. After a couple of deaths in the family, I did use the grief-counseling services. But I would tell anyone coming

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behind me in college to (a) pick a good advisor, or go to someone like Dr. Williams and get her to recommend an advisor because she knows these people; (b) get the list of requirements for the completion of your degree plan with all the required courses, then check them off as you enroll, and then check them off again after you complete them; (c) well, I have a four-friend rule…

Navigating the system: "Major" negotiations and making it work

I guess I should mention that I changed my major three times. At orientation, I was divided between Animal Science (because I wanted to be a Vet) and Architecture. At the last minute, I went with my heart and chose Animal Science. Confusion set in during my freshman year, but I was never confused about being in the College of Ag. Settling on a definite major, however, took some trial-and-error. As I said, my first choice was Animal Sciences pre-vet, and then that morphed into Animal Sciences and Biotechnology. Later, I moved over to Animal Sciences and Communications. In the end, my BS degree wound up being in Animal Sciences with an emphasis on production and management.

From the time I could talk, I had declared that I was going to be a veterinarian, and there was no other discussion. As I discussed earlier, I loved going to my grandparents' farm, and that's where I fell in love with animals. However, after completing a chemistry course in MAPS and going through Chemistry II my freshman semester, I decided there might be another avenue I could pursue. So I looked at biotechnology, which still had some of the science components but was not quite as demanding as chemistry. From there, I went through another phase of "I don't know if I really want to be in a lab for the rest of my animal-science career." So I gave communications a try because I had a background in journalism from high school. I had worked in TV, at a radio station, and at a newspaper, and so I thought I might fit in. That didn't work out though, so I switched to the production side of animal science, which I knew like X, Y, and Z

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because I had already dealt with those types of animals in my 4-H career. In fact, my involvement with 4-H was how I first met Jacey Colson.

Jacey was my undergraduate career advisor. I actually met him at a 4-H summer institute. It was at Rangeland Management summer camp, somewhere in the Wichita area. We studied the grasses, trees, and shrubs that our animals would be consuming. And Jacey was actually a speaker in one of those camps, and just the fact that I had remembered him from camp.

At orientation, I actually waited an hour after everybody else had finished their advising session in order to meet with Jacey and ask him to be my advisor. And starting with that relationship…Well, we knew each other. We may have met when I was in 4-H, but our relationship grew and we become closer as I was a freshman and sophomore, a junior and a senior…And I even kept in contact with them afterwards, and recently I actually gave them a puppy. He definitely helped me as far as course selection and meeting the requirements of the college.

Of course, my mother was the other person who influenced me to make those decisions and endure the kinds of ups and downs that come with all the back-and-forth between majors. My mother had a personal insight that no one else could ever have. She knew me better than I knew myself. After I finally declared Animal Science Production as my major, she told me, "I knew you were probably going to end up in production management or communications."

I was like, "Well, why didn't you tell me that? I could have been out of here earlier?" I was amazed that she knew me so well.

She said, "Some things you have to figure out on your own, and I can only be a sounding board because this is *your* life. When I realized you weren't going to make your dream of being a Vet, I knew you had to do what was best for you and something you loved. I knew it would

keep you close to animals, but it was something you needed to be passionate about." She said all of this in that motherly knew-it-all-the-time voice of hers.

But I couldn't help repeating myself: "Momma, if you had told me this sooner, I could have been *out* of here sooner." This time though, I was laughing.

The only other significant person who advised me was Dr. Williams. She was especially helpful at a time when I was so frustrated with certain classes. I struggled with chemistry, for example, and often felt like a failure. Sometimes, I even felt like I was letting my dad down. And I felt that same way when I changed majors. Both majors were frustrating and I had to acknowledge they weren't working for me. I'm the kind of person who refuses to keep hitting the same brick wall over and over again. That's not to say these particular courses were brick walls, but they just weren't fun. They weren't something I wanted to do. And besides, outside of Agriculture, my faculty interactions were limited to none.

I took chemistry courses with chemistry professors who weren't necessarily animal science and who weren't versed in animal science, and they didn't really understand where I was coming from. So it was hard for me to go to them and tell them their courses weren't working out for me. Additionally, the professors thought I should be more self-motivated. And it was true that at one difficult point in chemistry I really couldn't motivate myself, especially when the professor's examples or his tests were about tiny details that had no direct application to animal science. This was nothing when compared to making the decision to graduate within that four-year period.

Probably the toughest time for me was my last semester of college. I was trying to make it through this one last class that I was actually retaking. My roommate at the time was raped and it was… I just needed somebody to talk to who wasn't going to be judgmental, somebody

who knew me, knew where I was going, and knew where I needed to end up. Jacey Colson was that person. And there were other people, other faculty, who were questioning my decision to graduate that semester.

In my meetings with Jacey, we always talked for at least an hour. Yes, at least an hour every time I met him, and I could see him in the hallway, in his class, or I would tap on his office door, and he was pretty much always available when he said he would be. I could set up an appointment, or e-mail him, and he would be there. I guess Jacey said what I wanted to hear when others did not.

Dr. Williams wondered what my plans were after graduation because at that point I didn't have a job offer for a full-time position. I didn't have companies looking at me as a prospect, and she thought if I stayed in school longer, I would be able to get some of those things done before I left. Dr. Williams' students had job offers and were signing on with Cargill and other companies the first semester of their senior year. Yet, I did not have any such offers. However, I was convinced I would find a good job. So graduating at the time seemed to be an excellent decision because as soon as I graduated I actually got employment with the Midwest City Zoo, and I became an educational instructor for them, taking animals out on the zoo-mobile, going to see nursing homes, schools, community, block parties, and events.

I was prepared for the position at the zoo because the communications program in Animal Science prepared me. I had taken some public-speaking courses in college as well as an exotic-animal course in animal science. So all those things prepared me to work in a zoo; however, I already had previous knowledge from 4-H which also prepared me.

So I think it was a really good decision. I trusted in God that I would find a job.

Javier

Both of my parents are veterinarians, and I knew as a little kid that this was what I wanted to be. However, reality interrupted my dreams. So after three tries to get in to Vet school, I took the road to research. Now I'm doing what I think I always wanted to do.

Belonging: Cowboy boots, hats, and wranglers

There was a professor, Dr. Raja, who assured me I had made a right choice to come to MSU. Dr. Raja does E. coli research and Salmonella research. It was a great experience. He's one of my mentors, and I really look up to him. It was Dr. Raja's demeanor and teaching style. He's a very gentle kind of guy, super laid-back, but he would help you understand what happens behind the scenes of research. It was enlightening to hear my professors talk about how much research they were doing in the state; it all clicked within my head. I realized how many students they had working in that lab, and I wanted to be one of those students. So Dr. Raja invited me to join his undergraduate research team.

I remember a couple of things that helped to influence my decision towards animal science. Dr. Advar was appointed my advisor, and he was the one who said I needed a Plan B, since not many are accepted into Vet school. He told me what classes to take, and we even talked about whether I was a morning or an afternoon person. He asked what my future goals were, whether they involved being in pre-vet or something else. He pointed me in that direction to success, even though that direction was not towards Vet school.

My first animal-science class at MSU was Fundamentals of Nutrition, taught by Dr. Barnyard. It was my first class – one of the few where I learned the most. In fact, that first class was the reason I later received a master's in nutrition. I loved the way Dr. Barnyard taught. He

had a kind of dry humor, but he could also be straight to the point. It was a good class, and he was a great professor. To my amazement, he left about a year or two after I arrived at MSU.

It was hard at first, getting to know the other students, especially when I wasn't plugged in to any kind of club or anything. I could relate to the pre-vet people who were like more science/biology-oriented, but I couldn't relate well at first with other animal-science Ag people, many of whom were born and raised on farms and small towns in Kansas. I felt things were so polarized because it felt like two divergent groups within the same college – two groups, each with a different focus. There were the farm-life Ag kids, and then there was us. It's been a while, but to be honest, I cannot remember a professor encouraging outside-class interaction to their students. There was an occasional group project where this might have occurred, but that was it.

So I was in pre-vet club for a couple of years while I was in the animal science program. I was not a part of the Developing Scholars Program, but I did join the pre-vet club. Pre-vet was the only club I was involved with my entire time at MSU. I was actively involved in pre-vet. I was fundraising chair for at least a year. It was a good experience. I don't think I held any other position, but I had a good time.

One of the most significant events while in the club, I think, involved some travelling, going to symposiums and different meetings and other vet schools and what-not. You got to meet other pre-vet students. You got to do a little contest kind of stuff and sit through lectures. That really showed me the people that I would be interacting with, the sort of research that I'd be around, and it really drove me to keep on with what I wanted to do – even if it all ended up being Plan B. I knew that was the area I wanted to be in, doing that kind of work. So I guess pre-vet club and those symposiums really drove the point home.

I did not know about MANRRS. That's one regret that I have from my undergrad [years]. It wasn't until the last part of my senior year that I heard great things about MANRRS, and I wished I had been involved. In fact, I wished I had been more involved in other clubs, programs, or whatever. That's what I would tell anyone coming to MSU – to put your name on a list to join. I didn't join pre-vet club until my junior year. I know that pre-vet club was an awesome opportunity for me to develop certain skills. It was a great opportunity for me to see different universities. It was a great opportunity to meet people, different professors. So knowing all that now, I would tell people go out and meet as many people as you can.

When you are younger, you're maybe a little more self-conscious, like I was. Or maybe you're doing your own thing, you're in church or whatever – so it's easy to get sidetracked, and you never take advantage of the resources offered at MSU. So that's one thing I wish I would have been more a part of – all those club opportunities. I think the only one that I was seeking out was the pre-vet club. I don't think I ever went to anything else. Nowadays, when I have an opportunity to talk with any undergrad in our lab or department, I tell them, "Get involved. Check out clubs like MANRRS because it can really be beneficial." It's a great opportunity to meet people, to learn to interact with them, now and in the future.

My first few months at MSU, it was a little bit of a culture shock. Not a racial shock, but a cultural shock. Walking into Beber Hall, it's just a different environment. You walk to class and to the dean's office, etc., and run into people wearing Wranglers and cowboy boots and cowboy hats and what-not. Coming from a metropolitan town in Venezuela and then from a Midwest City, I just don't expect to see kids straight off the farm. So it was a different environment, but it was cool. I knew these kids were there to do their job, and they loved the reason they were there.

I am Brown. I've always been pretty good at blending in, to be honest. But it's hard not to stand out. I'm 6'6" so I'm kind of hard to hide. As I said before, there was a little bit of a difference in the interaction when you walked into Beber Hall, and there were people wearing Wrangler's and cowboy boots and cowboy hats versus somebody who looks like me. It just doesn't mesh. So I think people might have been hesitant to talk to me – or to interact with me – because they didn't know what to expect. "What's *this* guy about? He doesn't look like one of us…" So I think there was some of that. I don't think I ever felt discrimination, or that people didn't like me just because of my race. But maybe people were hesitant to reach out because I looked different. But I never let it bother me. I know that once people get talking with me, it's like nothing.

A dream deferred: Plan B

I understand graduating, I understand getting that degree, but how do you even go about applying to grad school? How do you choose a program? How do you choose a professor? MSU. In the animal science program, we could have done a lot better directing people with what to do. I feel a lot of people didn't even know that grad school was an option. Maybe it's because they think they didn't do well enough in undergrad. Or they think they don't even need to go, especially if you're an animal science major. Then your options are to become a vet or go home and work in a vet's office or farm.

It was tough and options seem limited. However, that's when Dr. Raja jumped in. He said grad school is always an option. He directed me to the right classes so that I would be prepared for grad school. I still didn't feel prepared though, and the perfect indicator was the fact that I was still in the mindset of an undergrad taking 12 credit hours of grad-school classes. I crashed and burned for a semester by taking 12 credit hours of graduate-level classes. That didn't

pan out well. But I still had those relationships I had developed while working with Dr. Raja and another grad-school professor who said, "You need to look at this program and do *it* instead."

I wish I had been more involved with my advisor right away and got to know earlier what exactly I needed to do. My undergrad advisor was Dr. Advar, and I wish I had been more straightforward, telling him, "I want to do this and I want to do it because of this" and get the ball rolling *that* way. Being young and…still, it's hard to make a decision. After the disappointment of not getting in, it's kind of hard to wrap my head around. "Okay, this may be it, but that's okay and we're going to get through it."

I feel awesome about the direction my undergraduate program took. It's actually turned out well. I'm doing a lot of research, taking classes that pertain only to stuff that I want to look into. For my master's, I studied nutrition and microbiology under Dr. Advar and the animal-science department. It was a great opportunity to get my feet wet with poultry research and nutrition and microbiology in a food-science lab. And there were other projects – projects where I was the main person – and that doesn't even account for the other little research projects where I was helping other people. So it actually ended up being a great opportunity. I'm doing different research now. It's given me the opportunity to branch out in ways that I never thought I would. When you're an undergrad and they're telling you what you need to do, it's easy to get hung up on one specialization, and "that's what you've got to do, and that's it." But I don't think the big ideas come from that one specialization. I think big ideas come when you join things that normally wouldn't go together. So that's what I'm hoping for with Plan B.

I should have done more in my undergraduate lab classes. If I had my perfect world, I think, to prepare me for grad school, the only thing I would have added was paper research – developing the skill of reading and writing in the lab so you can produce a publication. That

would be the only skill I would have added to that class. I could do all the sampling and the processing, but not write up the results. I was almost author of one of the papers because I was in charge of the sampling and sample-processing and what-not. But I never was involved with writing the results, and that's why I never got authorship on those papers – because I never actually read and digested and produced anything on paper. Could my professors have led me in the right direction so I would have authorship? Yes, maybe. But they had other students, and they could not focus on just me.

Dr. Advar was great for two things. He gave you free reign to do whatever you wanted. When I started working with him, he said, "Do research and let me know what you want to do your project on." Which was funny. It's great, but then it's not. A lot of times it's easier if somebody just gives you a project. "Here it is, now do it." It's almost harder to be creative and come up with this awesome idea because then you want to come up with the best idea ever. So depending on what kind of person you are, having that freedom can help you thrive.

The second thing about Dr. Advar was that he was very *real*. "This is the real world, this is what we need to do to get you to succeed in the real world, this is going to be good for you, and this isn't." He wasn't trying to paint you a perfect world; he was very straight to the point – "This is what's going to get you money in the end, and this isn't going to be worth anything."

It was super challenging because I was just coming out of undergrad and I didn't know what reading a research article was – except for the couple that you get in class. It's a different ballgame to actually sit through and read a bunch of articles and sort of digest everything and summarize it into one page. So it was a big challenge at first. But the kicker was that he encouraged you to do your own research, but *he* had to like it too. He had to agree it was a great idea, and it was something he wanted his lab to do. So there was a little bit of a catch there. It

couldn't just be anything. I had ideas from the Raja lab because we did a lot of research there, but that was with cattle. I wanted to take that research from cattle to chickens and see what kind of results we got. Super-straightforward! We knew the design; we just had to do it with chickens. But he didn't want to do that because everyone was doing it, and it was a waste of time. So we never did it. But I ended up in another project, which was even better, and other people recognized it as such. So it worked out great.

Our orientation and advising were different, I think. There was a lady I thought was helpful. She knew my case with the whole immigration thing and visas. So she walked me through the process. Before I got to MSU, she was really good about emailing me. When I got to the orientation, she knew who I was. She picked me out, and then walked me through the entire process herself.

Navigation to graduation: Just straight-up White people

As I said, I was never really discriminated against. But there was always that…well, my parents, like I said, were vets. They actually both went to school at Texas A&M. My dad did his grad work there – his master's, his Ph.D. And my mom got her animal science degree at A&M. So the day I was moving to the States, my dad said, you know, "They will always remind you that you're not from there." That stuck with me. The day before I moved, or on the way to the airport, that's all he said: "They will always remind you that you're not from there." I will remember those words. So I sort of set out to not have that happen to me. I had to show my dad he was wrong. That's a kid's reaction, having to show your dad that he's not right. So that's why I tell you I never felt discriminated against. And if I felt it with that first interaction, I just waited until a conversation started. I felt like those, I don't know, paradigms, those – what do you call

them? – any preconceived notions just sort of go away as soon as they start having a conversation with me. At least, I felt that way.

Although ethnicity, race, and other categories or labels they want to put you in, those thoughts – all of a sudden, they're gone as soon as you start having a conversation with them. I think the only time I felt like I was discriminated against was actually with my advisor. It was funny because it sort of backfired at the same time. He would say, "Javier, you're a great writer, even for somebody who is not from around here." It was like a backhanded compliment. Did I get upset about it? No! So, yes, I was often reminded I wasn't from here. But at the same time, I'm a better writer than people who are from here. I couldn't get too upset about that. But that was about the extent of any negative experience that I had at Midwestern State. It really is a great school. I miss that place every day since I've been here in the South. I wouldn't change those years for anything. No, it was great. It was a really good experience. I think, again, that's about as negative as it ever got – and it was actually a positive. With this faculty, I think it just has sort of evolved that way. They ended up having to put me on a couple of their search committees straight-up because I'm Brown, and I understand that they have to have the diversity in that search committee. So they had me in *two* search committees. There was never any issue. We had a bunch of ladies apply, and we treated them just like anybody else while we were at those meetings. So they were fair every time I was there in the room. In the two opportunities I was involved with those committees they did a great job.

If you were to browse through the animal science faculty and staff, you would notice that they look about the same. Great people, awesome people, I have good relationships with all of them. But they all look about the same. It's all White males. It's what animal science has been historically. Again, I always had great interactions with all of these professors, and I never felt

any kind of discrimination – other than that little story I told you with my advisor. But it does make you think, "Well, what if a Hispanic guy came up and he wanted a position here? Would you guys be open to that?" But that's the only thing that I was ever…like, if you look through the website, it's a whole bunch of just straight-up White people.

Outside of the college, there was one time I was taking a culture class. It was a culture, a Hispanic, Latino culture, some kind of class related to culture. The professor asked me, "Where are you from?" And, of course, we got into that a little bit. But she asked very superficial questions, and she didn't ask me any kind of personal questions until it was one-on-one after class and whatnot. So if people wanted to ask (and they almost always wanted to) where are you from, I told them – but nothing more than that. If anything, I used to have fun with it.

Discussion

The participants in this interview study were asked to share their undergraduate experiences as African American and/or Latino alumni who earned an A-STEM degree from a PWI. This qualitative interview study was guided by CRT, which is based on marginalization of ethnic minorities and other oppressed groups. Solórzano and Yosso (2002) stated, "Using CRT methodology confirms that we must look to experiences with and responses to racism…in and out of schools as valid, appropriate, and necessary forms of data" (p. 37). Four of the six CRT tenets (racism is endemic, colorblindness, interest convergence, and storytelling) informed the study and were used to code, interpret, and analyze the data.

This study provided the participants the opportunity to discuss their lived experiences while undergraduates at MSU. The participants' counter narratives allowed them the opportunity to discuss their perceptions of "critical discourse in education" (Solórzano & Yosso, 2002, p. 37) at MSU. Critical Race Theory helped to formulate the research questions, which were designed

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to answer the contributing reasons for the successful completion of their undergraduate programs. Drake's, Victoria's, and Javier's counter narratives challenged the majoritarian narratives revealing strategies of "survival and a means of resistance" (Solórzano & Yosso, 2002, p. 38), which led them to successful completion of their A-STEM programs. As part of counter narratives, it was decided that the representation needed to be told in stories. However, while all stories had common elements, they also had unique details and variations. Holding these common elements and variations in mind, three broad narratives for each participant were created. These narratives were driven by the salient patterns that occurred across all data sources. These salient patterns were:

1. The participants needed to be around some faculty and administrators who looked like them because they wanted someone to understand their experiences as people of color at a PWI.

2. The participants wanted ethnic or culturally based, discipline, or college specific student organizations or programs that supported ethnic minorities. The participants named organizations or programs as critical to their academic and social success. Peers in these organizations or programs helped the participants to negotiate issues related to race, class, and power, and helped to identify and establish navigation strategies.

3. The participants experienced limited to no support from faculty. Ethnic minority students need more faculty interactions in and out of the classroom.

4. The participants experienced limited to no opportunities for faculty-led research projects, so their option for research was through research programs outside the college or remedial mentoring programs while their White counterparts had access to faculty mentoring.

Three broad narratives were created for each of the participants using the salient patterns as guides. The broad narratives were created to: (a) challenge the dominant/majoritarian narratives, (b) allow them to name their stories through their voice and words, and (c) deepen the counter narratives by reflection (Hammond, 2014). While selecting the passages to highlight in this research, the participants' stories revealed similarities and differences. Two such similarities were the shared experiences of belongingness and navigating the system. After reading and re-reading the interviews and reflecting upon my journal notes, the following narrative titles were created for each of the participants.

Drake's are as follows:

1. Belonging: The only Black in a class of 250 students;

2. Determination: A better option

3. Navigating the system: A Brotha can make it.

Victoria's narratives were grouped as follows:

1. Belonging: When being Black, tall and female won't fly

2. Establishing Networks: MANRRS, career fairs, and Cargill

3. Institutional navigation: "Major" negotiations and making it work.

Lastly, Javier's narratives are as follows:

1. Belonging: Cowboy boots, hats and wranglers

2. A dream deferred: Plan B

3. Navigation to graduation: Just straight-up White people.

The ethnic minority students in this study noted that dealing with feelings of not belonging (isolation) was one of the most challenging aspects of being at the institution of higher learning (Hurtado, 1999). Drake and Victoria, the two African American participants, were

reminded frequently that they were not of the dominant group. Their feelings of isolation were

enhanced because of their ethnic group's history in America. The fight and struggle for equality

affected them on a daily basis at this PWI. Drake and Victoria were often the only African

American students in large lecture classes. In these classes they were often singled out to speak

for their race. They also had to be diligent about the organizations they chose to join, because

they could not join a White Greek organization or African Americans would question and shun

them, whereas White acceptance in these organizations was equated to "tokenism." The

experience of belongingness was different for Javier since he was also an international student.

While in his native country of Venezuela, he did not worry about his race and there was no

historic struggle with which he identified. However, in America he was often misidentified as an

illegal immigrant from Mexico or Puerto Rico. The forms of racism, which Javier dealt with

were different yet similar to those experienced by Drake and Victoria.

Two of the three participants spoke about their strong connection to the student

organization MANRRS and working with key faculty and administrators who looked like them

as the best strategies for their success and feeling a sense of belonging. The benefits of being a

part of the student organization were revealed through opportunities, which helped the

participants negotiate issues related to race, class, and power. Harper and Associates (2014)

noted, "that engagement in student organizations and participation in enriching educational

experiences" (p. 29) added value and depth to relationships with professors and administrators.

Through these organizations they were able to obtain recommendation letters written by faculty

and administrators and they were often suggested for internships. Both Drake and Victoria

recounted their internships and the offices they held in the organizations; both types of

experiences, which helped them to navigate through the institutional system (Kuh et al., 2006).

Each identified strategies for student success (e.g., finding a faculty research mentor, joining MANRRS, changing their major, seeking services such as tutoring).

Utilizing the support of administration and organizations, e.g., Dr. Williams, the assistant dean and MANRRS student organization (Drake and Victoria), and faculty research mentorships (Javier), the participants were able to navigate through the higher education system and graduate from MSU. The participants became adept to navigating the system to their advantage, which led to their success in academics. The participants were held accountable for their student success in and out of the classroom, which often included navigating experiences of racism or discrimination. The participants' successful navigation to graduation was in stark contrast to the perception that deficient narratives provide about ethnic minority students not caring, being unprepared, and stigmatized by low attrition rates (Harper & Associates, 2014).

The narratives demonstrate that academic and social structures informing the discourse of what higher educational environments, via the dominate culture narratives, should look like differed from the participants' experiences. The counter narratives exposed and dismantled the assumptions that the participants, as ethnic minority students, would experience a welcoming environment at the institution and college levels. University and college level environments often worked against the participants' desires to succeed as in the case of Victoria taking a D in a class in which she could not get assigned to a working group. The participants experienced various academic and social issues of racism, which often felt overwhelming to the point of paralysis. However, in spite of the fact that these environments were undesirable and often drained the participants' desires to move forward in their programs of study, the support of ethnic minority faculty and administration, ethnic-specific student organizations, or faculty research mentorships

helped to move the participants to graduation (Harper & Quaye, 2009; Hurtado, 1999; Ladson-Billings & Tate, 1995).

Within the higher education system, the participants spoke about negotiating racism and navigating the system and the factors they attributed to their success at MSU. They spoke in their counter narratives about support from family, advisors, and faculty who looked like them and also their peer support. Drake found solace in racially and ethnically diverse groups and organizations since he was the only ethnic minority on his residence hall floor, and he was placed with a non-traditional student. Academically, Drake, Victoria, and Javier found other A-STEM majors who looked like them; they would work together in study groups reinforcing course content through academic engagement. Their peers offered a safe zone for conversations about their professors and curriculum. Within their peer groups, they could ask questions that they dare not ask during class.

Peer support was important to the retention and matriculation of Drake and Victoria. Although MANRRS was often referred to as a student organization, it served a much bigger purpose in their lives. The MANRRS members created study groups and these study groups helped Victoria understand materials through different perspectives.

These narratives, based on the experiences of Drake, Victoria, and Javier, reflect that learning is not separate from personal, emotional, and social wellbeing (Watson, 2014). They faced overwhelming stressors such as racism. When Drake and Victoria faced difficult challenges or experiences they found solace in talking with Dr. Williams and their peers in the student organization MANRRS. Javier would often talk with Dr. Raja, his research mentor and advisor, who happened to be an international faculty member from South American. Receiving

faculty support from people who looked like them seemed a significant resource that contributed to their resilience, determination, and success.

Bernard (2004) identified that caring relationships and high expectations from faculty are protective factors within a student's environment that facilitates resilience. Working with Dr. Williams and Dr. Raja was a protective external factor for the participants of this study. However, the participants recounted stories of finding and understanding their internal sense of purpose and their resilience. This strong sense of purpose and their resilience, identified as an internal resource, kept them moving forward to graduation. Victoria told a story about wanting to quit; however, she had a strong sense of purpose and her goal was to graduate. As a result, she would remind herself of her goals and would soon put all thoughts of quitting away. Their intrinsic motivation and ability to reflect on their experiences (Watson, 2014) assisted them in their navigation of the higher educational system.

Harper (2009) noted that it is the responsibility of the institution to enable engagement among racially and ethnically diverse groups. The College of Agriculture at MSU addressed their responsibility to the ethnic minority students and diversity within the college by intentionally recruiting and hiring a well-qualified administrator of color to help develop a strategic plan for diversity in the College. One of the first initiatives was to establish the Diversity Programs Office and the MANRRS student organization. This was the College's effort to counterbalance the engagement opportunities that were predominately white. This is considered an aggressive move on the part of the college to accept responsibility for ethnic minority student engagement (Harper, 2009).

The Diversity Programs Office is charged with faculty and staff diversity training. Drake and Victoria, as student helpers, both mentioned that they attended the training sessions and were

pleased to hear that professors were asked about equity versus equality. Harper (2009) noted that equality is "treating all students the same" (p. 41). Educators must acknowledge qualitative differences in the experiences of ethnic minority students and become "race-conscious educators" (Harper, 2009, p. 41) with pedagogical equity strategies incorporated in and out of the classroom.

Finally, although the participants of this study expressed that they were engaged in A-STEM programs in which there was a limited sense of community among their peers, other students, faculty, administrators, and even A-STEM alumni, the participants felt validated when their presence and abilities were affirmed in the disciplines they selected (Kuh et al., 2006). Javier often spoke of finding his "place" in the College in the labs and conducting research, all of which was in support of his graduation efforts.

Summary

The findings from this study were presented along with poignant success stories. Space was provided for the reader to understand that these counter narratives would create difficult conversations and often be hard to read. The personal narratives provided the necessary background of each participant and helped to explain why the students chose the disciplines they did. However, this research provided a much-needed space for those voices and counter narratives of untold stories of ethnic minority struggles at a PWI.

Universities and colleges are faced with challenges of providing environments in which ethnic minorities can feel belongingness, persist, and ultimately graduate (Hurtado, 2002). As indicated in this study, an additional obstacle experienced by these students was that they chose to be in an A-STEM discipline in a college still dominated by majoritarian group (NECS, 2013). Although there were similarities and differences, as indicated in the participants' counter

narratives, all expressed a strong determination to graduate. Resilience was identified, in their counter narratives, as a "sub story" with primary value to the participants. Drake, Victoria, and Javier told stories of how they managed occurrences of racism, colorblindness, and interest convergence and continued to "get up" and start it all over again the next day, in spite of what they experienced the day before. Quitting was never an option although several participants expressed the desire to do so often. Throughout the participants' counter narratives navigating the system was the cusp of these students' success. As demonstrated by Drake, Victoria, and Javier, using the system to their advantage and also trying to understand the university system helped each to complete their ultimate goal graduation.

Four salient patterns, which occurred across all data sources were identified. The participants deemed that having the opportunity to belong to an organization within the discipline that was ethnic-specific was important to their success. Having faculty and administrators with decision-making authority, who looked like them, seemed to be one of the most important reasons why these participants were successful to graduation. Faculty who looked like them helping with incidents of little to no faculty support, in or out of the classroom, was important because it helped them to successfully navigating the system. The final pattern identified was the lack of opportunities to be involved in a faculty-led research project, while their White counterparts had access to faculty mentoring.

Chapter 5 - Conclusions, Implications, and Recommendations

The U. S. educational system has dismissed ethnic minority communities by marginalization justified through stories of the dominant race (Solórzano & Yosso, 2002). This study documents the voices of three ethnic minority participants delving into their experiences of stories often untold. The critical race methodology (Ladson-Billings, 2005) helped to separate discourses on race and revealed the effects of race on the experiences of the participants.

The purpose of this research was to explore how three A-STEM alumni, who identify themselves as African American or Latino/a, from the College of Agriculture discuss the contributing reasons for the successful completion of their undergraduate program at a predominately White institution (PWI) – Midwestern State University (MSU).

Three research questions guided the study:

1. What do the participants describe as reasons for their successful completion of their undergraduate degrees in their chosen A-STEM fields in the College of Agriculture at Midwestern State University?

2. What are the participants' formal and informal experiences of being an A-STEM major in the College of Agriculture at a Midwestern State University?

3. In what ways, if any, do the participants discuss their successful completion of their undergraduate programs in relation to their ethnic backgrounds?

Conclusions

In this section the research questions and relating the participants' counter narratives to CRT are responded to in a summative manner. The reason for this is that the stories of the three participants reveal ways in which all three questions are intertwined with each other. Therefore, attempting to address one question will inevitably overlap with response for the other questions.

Responding to the Research Questions Using CRT

Successful Completion of A-STEM Programs. The purpose of this study was to explore the lived experiences of African American and Latino alumni from the College of Agriculture. Although there is a plethora of literature exploring the low retention and high attrition rates in higher education of African American and Latino/as (Brown, 2009; Cuyjet,1997; Harper et al., 2009), the goal was to explore the successful attributes which led these African American and Latino students to persist and graduate with degrees in A-STEM disciplines.

The guiding impetus for this research was the tenets of CRT. Woven throughout the counter narratives were stories of success, "in spite of" narratives. These stories were almost revelations of success! In their counter narratives the participants spoke of experiences of racism and discrimination; however, the participants were clear that the following were keys to their successful completion:

1. To have an ethnic minority (or in Javier's case an international) administrator who understands the unspoken and often denied existence of them as a person first and then a student;

2. To have a safe zone (i.e., their community, ethnic minority organizations) which was identified as a safe haven, a place where they could be themselves without aspects of bi-culturalism, develop as a scholar academically, and have social respite;

3. To have the opportunity to be involved in research projects; to do more than research but serve as a co-published author or present findings at a local, state-wide, or national conference;

4. To have faculty-student interactions outside the classroom;

5. To have a connection with their advisors and the opportunity to build on their ability to bond, trust, and depend on them to provide guidance to graduation;

6. To have support obtaining financial aid solutions, e.g., seeking and finding applicable scholarships, help keeping scholarships, obtaining other additional financial aid opportunities, and help establishing in-state tuition when an additional year of study is warranted; and

7. To have the university personnel understand their personal community of family, friends, church, and organizations and how this is a catalysis to their persistence and a source of encouragement when needed (see figure 5.1).

Figure 5.1 Factors Contributing to Student Success
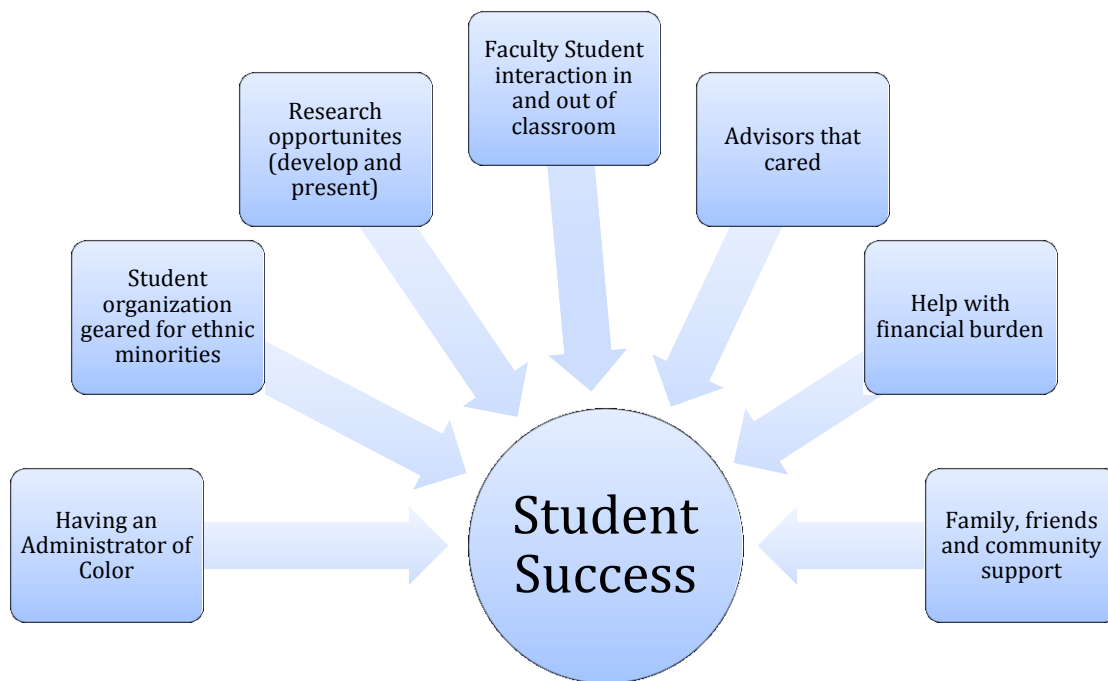
Drake, Victoria, and Javier related stories of not having many or any faculty or administration w_ho looked like them. They often felt that they had to assimilate, not only to the

dominant culture but the agriculture culture. Victoria related a story about how she felt she would have fit in more if she had worn a weave (straight hair) "hair do" instead of her small stacked Afro. Both Drake and Javier mentioned guys in wranglers, cowboy boots, and hats and how their style of dress did not fit in to the world of agriculture. They wondered if they needed to adapt their clothes, hairstyles, and organizations. For them, the way to success at MSU was paved in performative behavior (Cuyjet, 2006; Harper, 2009). Drake often felt he had to modify his behavior, which included the way he spoke, in order to fit in at MSU College of Agriculture.

Participants stressed the importance of finding solace in faculty who looked like them or in Javier's case were international. These identified faculty members stressed the importance of a good education, good work ethics, and determination. Participants recounted vivid stories about interactions with these faculty mentors and how their academic support helped them determine their life goals and how they would fundamentally apply their aspirations and dreams.

Drake shared with great pride how Dr. Charles, an African American faculty member in the Vet School, came to a MANRRS meeting and talked to the Black students about the new Public Health major and master's program. The validation that Drake, Victoria, and Javier experienced from faculty who looked like them was a welcoming experience for them. Faculty mentorship comes in many forms; however, each of the participants in this study expressed great appreciation for having someone who looked like them also mentor them and Javier found his solace in an international faculty member from South America. Javier felt that being an international student resonated and also created a bond with the international faculty member. Thus, students who connect with faculty and administrators tend to develop relationships, which enhance their sense of persistence to graduation (Kuh et al., 2006). Institutions of higher learning have been provided research that indicates that having ethnic minority and international faculty

will help to not only recruit students of color to the institutions but will help to retain them (Kezar & Eckel, 2007).

There are benefits to having faculty who look like ethnic minority students. According to Kezar and Eckel (2007), the benefits include the following: (a) ethnic minority faculty/staff can provide a unique engagement of students, which improves retention and degree completion rates; (b) ethnic minority faculty are more likely to engage students in classroom dialogue on issues of race and ethnicity that challenges students; (c) ethnic minority faculty assist as role models to ethnic minority students and they are often viewed as "inspiring symbols of professional success and powerful examples of academic excellence" (p. 100); (d) ethnic minority faculty help ethnic minority students to have successful undergraduate experiences; and (e) ethnic minority faculty "raise students' consciousness and critical thinking skills even when faced with resistance" (p. 100).

Formal and Informal Experiences. Out-of-classroom experiences expressed by the participants in their counter narratives included the discussion of their precollege expectations of what it would be like to be at a university. Drake and Victoria were essentially the first in their families to go to college. Javier's parents had both attended American universities to obtain their degrees, so his expectations for college were not as high as Drake and Victoria. All participants had strong academic high school records; however, only Drake and Victoria were involved in high school co-curricular activities. According to Kuh et al. (2006), students with strong high school academic records tend to become involved in college activities at a greater rate then those who do not. The high levels of involvement in a wide range of "intellectual, social, and cultural activities during the first year of college" (Kuh et al., 2006, p. 33) are excellent predictors of student persistence and academic success in college. Javier was not interested in clubs and social

programs. He was extremely focused on his academics; however, he strongly reiterated his disappointment in not learning about MANRRS and being a part of that student organization.

Drake and Victoria both mentioned in their counter narratives that if it had not been for their involvement with the student organization MANRRS, they would not have graduated. Involvement in MANRRS had the greatest positive impact on their persistence at MSU. Consequently, through their involvement in MANRRS Drake and Victoria began to experience a greater impact on their commitment to attaining their educational goals and attributed being involved in MANRRS as their foundation to success at MSU. Participants expressed the need to have a safe space "to express their personal views, struggle with understanding human differences, and explore their identities" (Kuh et al., 2006, p. 72).

The research participants stressed the importance of faculty relationships outside the classroom as critical to their persistence and graduation. Interwoven in all participant counter narratives were the significance of their faculty-student relationships and connections not only inside the classroom but also more importantly outside the classroom experience. "Respect for their abilities as scholars, open dialogue with their instructors, and opportunities for scholarly activities are the prevailing positive outcomes that participants associate with strong relationships" (Hayes, 2013, p. 293). It was important to the participants that relationships be established outside the classroom to demonstrate a form of respect for more than their scholarship. Informal student-faculty interaction activities—being a guest in a professor's home, working on a research project with a faculty member, talking with instructors outside of class, and serving on committees with faculty—are positively correlated with student learning and development (Astin 1993b; Kuh 2003; Kuh & Hurtado, 2001). As Kezar and Eckel (2007) noted,

Early on students should do their homework and learn which people are committed to

making the college community more diverse. Historically, they have a history of

supporting that type of agenda, and that's where you need to start. These will be the

people who serve as advisors to clubs, who serve on your diversity committees, who

come to you, and try to help you understand the importance of diversity and

multiculturalism—those individuals who actually step out front and will lead the campus

forward if supported. I'm not just talking about people of color but having individuals

from all backgrounds. And then you need to provide them with rewards, celebrate their

successes, and provide PR for their efforts. From my vantage point, that's how we've

been successful and created a network of support. (p. 105)

Pedagogical Approaches. Important to the participants was the pedagogical approaches

faculty incorporated in the classroom. Drake, Victoria, and Javier expressed the faculty

members teaching approach as being important to their learning and academic success. Higher

educational institutions that "value undergraduate student learning also tend to encourage the use

of such engaging pedagogies as active and collaborative learning, classroom-based problem

solving, peer teaching, service-learning, and various forms of technologies" (Kuh et al., 2006, p.

67). Counter to Kuh et al. (2006), pedagogical approaches (e.g., group projects) were considered

as a counter-productive and a daunting task by the participants of this study. Javier and Victoria

relayed stories about simply wanting to work by themselves rather than in-group situations.

Although their stories indicated that they knew collaborating would enhance their work and

prepare them for the "real" world, this is the area they felt the least support from faculty. At the

other end of the spectrum, the participants indicated that they felt they learned more and valued

the experience when there was an increase in the frequency of contact with their professors in

and outside the classroom in formal and informal experiences. Connections with faculty and administrators in and out of the classroom was valued by the participants. They often mentioned that it was one of the reasons they persisted to graduation.

   Ethnic Background and its Effects on Successful Completion. When participants experienced racism or discrimination because of their ethnicity or race they would refer to their community of support. Having or building a community of support was important to the participants' academic success and their persistence when dealing with issues of their race or ethnicity in and out of the classroom. Key components to building a community of support identified by Hrabowski (2012) are: (a) peer support; (b) involvement of caring adults and faculty; (c) assembling groups of students to talk freely about what they think and believe, and how they see the environment; (d) empowering students to do well in school; and (e) family involvement.

   When the participants had to deal with racism in or out of the classroom they would refer to family support and how significant it was to their success (Fentree & Collopy, 2011). In particular, they specifically mentioned their mothers' support. The support ranged from emotional support during stress (Drake's mother asking if he wanted her to "kick the professor's ass" because she knows her son is brilliant) to expressions of pride throughout their undergraduate years to graduation. In this study, mothers supported the participants' decisions (e.g., Victoria changed majors three times). All participants spoke about their mothers being role models and examples of hard work and how it "pays off." For example, both of Javier's parents were veterinarians with thriving practices, but his mother was the one who took him to work with her from the age of 10 and Drake's mother worked hard to get promoted so she could move her family to better housing and area of town with better schools. When dealing with the

challenges of racism and discrimination, the participants of this study would turn to family, faculty, and peers who "looked" like them as an important aspect of the building of "community" at MSU.

In this community of support, which consisted of their mothers, faculty of color, and their peers, Drake, Victoria, and Javier found a safe zone, a place for understanding, and a place of freedom to express their feelings and opinions about occurrences of racism and/or discrimination. Javier often spoke, throughout his counter narratives, about how Dr. Raja, being an international faculty member, understood the challenges he faced as an international student in the College of Agriculture. Also, it was with Dr. Raja who he could speak about being stereotyped as a non-English speaking person and what it was like to navigate through racism at the intersections of race and national origins in a predominately White male program. It was with Dr. Raja who he could speak openly to about his fears, disappointments, and being excluded from being named as an author of research, in which he had worked hard. Javier built his community with Dr. Raja and found safety in this relationship.

Peers in the College of Agriculture were also part of the community of support, which helped the participants to stay focused on their goal to graduation. Peer and family support were key components of participant resilience. Resilience, according to Richardson (2002), is a "driving force that allows a person to progress despite adversity and disruptions" (p. 307). Despite adversity, it was Victoria's resilience that kept her moving towards graduation even though she experienced adverse racism and ultimately she received a "D" in the class as a way to cope with racist behavior on the part of her peers and professor. Resilience has been determined by Fassig (2004) to be a better predictor of academic and social adjustments in college than academic success at the secondary level. High levels of resilience of participants helped them to

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believe that acts of discrimination or racism were educational moments, as indicated by Victoria and the group project disaster, where she believed that taking a "D" rather than taking the issue to the dean, was her way of "taking one for the team." It was in MANRRS that Victoria learned from her peers that she was not the only one to experience this form of racism. Within her peer community she was provided recommendations for those situations and the administration with whom she could discuss these issues. Within her peer community she was taught how to navigate through these issues and move forward to graduation. Resilience was demonstrated in Drake's counter narratives when he lost his scholarship for poor grades and how he managed to move forward with his progress to graduation. Javier spoke at length about being rejected three times from vet school and how indeed he had to utilize his plan B. Resilience is often conceptualized as an internal factor related to the individual and is applicable to the participants of this study as it adds an element of understanding the ties between the participants and their ultimate goal to obtain a degree (Avery & Daly, 2010).

Relating the Counter Narratives to CRT Tenets. Critical Race Theory (Delgado & Stefancic, 2012; Ladson-Billings & Tate, 1995; Solórzano & Yosso, 2002) methodology provided a framework for this study. First, *racism is endemic* and it is brought to the forefront in all aspects of the ethnic minority students' undergraduate experiences. Second, the study challenges the dominant/majoritarian stories with *counter narratives*, which are used to explain the experiences of ethnic minority students. Third, CRT transforms and liberates solutions to subordination and it unmasks *colorblindness*. Lastly, differential racialization – *interest convergence* of the university and how it affects ethnic minority students is discussed.

The study exposed several issues related to the participants' perceptions of racism. One issue the participants faced was that racism is securely woven in the fibers of higher education

and deeply integrated within the institutional environment. Qualitative interview studies help construct the experiences and meanings of events through the eyes of the participants in a manner that portrays a representation of their experiences. Deeply immersed into the majoritarian narratives, the participants did not believe racism existed until they had to face the reality of racism and maltreatment in their own words. Racism is endemic as a CRT lens "recognizes that racism is endemic to higher education and exists in many forms, though one of the most prevalent appears to be institutional racism…standard operating procedures" (Villalpando & Delgado, 2012, p. 248).

Javier expressed another form of endemic racism; he only knew of two students of color being admitted to the Vet School, which led him to think of his plan B. When ethnic minorities have no choices, it is a form of discrimination (Fernandez-Bergersen, 2008). Although Drake, Victoria, and Javier conceptualized race in different ways and were at varying stages of racial consciousness, oppression manifested itself in many ways throughout their narratives. The participants' identities were strongly influenced by the dominant discourse (Hayes, 2013); thus, they often portrayed racism in their narratives as no big deal. Javier downplayed his experiences of racism and continued to tell the majoritarian story. Through Javier's counter narratives he uncovered incidents of racism and he began to question himself and several key incidents as an undergraduate.

Critical Race Theory challenges White (dominant) models of success and CRT addresses the systemic issues complicating the conditions that exist in these ethnic minority student communities. Endemic racism is difficult to address because it is often not acknowledged and dominant forms are accepted as status quo. However, when researchers utilize the tenets of CRT and challenge the structures that "led to de facto, racialization, which creates conflicts for the

opportunities, advancement and economic development for persons of color" endemic racism can be addressed (Hayes, 2013, p. 300).

Delgado and Stefancic (2001) and Guinier and Torres (2002) provide the essence of colorblindness as the observation of race while denying it exists through non-recognition. Critical Race Theory challenges the traditional tenets of colorblindness (Delgado & Stefancic, 2002, 2012) "which are viewed as a camouflage for the self-interest, power, and privilege of the dominant group" (Fernandez-Bergersen, 2008, p. 189). Colorblindness is often described as being fair and equitable for everyone no matter the race, ethnicity, or color, and colorblindness is the most insidious form of racism as it is the condition that allows education to discount ethnic minority students (Fernandez-Bergersen, 2008). Javier expressed that he felt his "being brown" or "no one that looked like in the college faculty" had no effect on him. He continued the majoritarian story of colorblindness that everyone is ensured equality. However, what Javier experienced was the process of accepting and believing on a conscious and/or unconscious level the endorsement of his own oppression (Crenshaw et al., 1995; Lynn & Parker, 2004). "According to CRT, colorblind policies and practices do not compensate for the effects of historical oppression over communities of color" (Hayes, 2013, p. 301). In addition, "Race-conscious educators do not embrace colorblindness. They understand that 'I do not see color' is an overused and offensive way of denying the unique experiential realities of racial minority students in predominantly white situations" (Harper, 2009, p. 43). U. S. Supreme Court Justice Harry Blackmun asserted in a landmark affirmative action case, "In order to get beyond racism, we must first take account of race. There is no other way" (as cited in Harper & Hurtado, 2011, p. viii). Students must no longer experience disrespect, experience the lack of acknowledgement

of their race, and be marginalized in front of their White counterparts or the cycle of racism will continue because of modeling.

Utilizing the theoretical lens of CRT, the participants of the study were able to empower themselves by sharing and hearing their own stories (Solórzano & Yosso, 2002). Ethnic minorities often embrace the majoritarian's story and even tell the story. Javier often mentioned that he did not experience racism; however, while relating this story he seemed to "hear" his own story and realize that maybe indeed he did experience some racism. While reading the transcripts for member checks, Javier experienced powerful moments of reflection, which led to him feel more empowered and an awareness that he had not experienced while an undergraduate. "Although racism creates, maintains, and justifies the use of a master narrative" (Solórzano & Yosso, 2002, p. 27), Javier began to listen to his story while reviewing the transcripts and noticed how he had framed his narrative in the majoritarian voice.

When the "interests, ideas, and realities of both people of color and Whites converge" (Felder & Barker, 2013, p. 4), then social justice for ethnic minorities occurs. Interest convergence as a major CRT tenet of diversity research explains racial relations and racial equality awareness in higher education (Harper, Patton, & Wooden, 2009). As Goecker et al. (2010) indicated, there is a strong need for more A-STEM graduates and ethnic minority students are an untapped pool. Also MSU officials were noticing a White student population at MSU was down 3.8% from 2001 to 2004 (Planning and Analysis, 2005). As a result of the College's expanded diversity initiatives, a concerted effort was made to actively recruit more African American and Latino students to MSU. As an example, the dean hired an African American woman as an assistant dean for Diversity to aid in the recruitment and retention process of ethnic minority students. Even with interest convergence aside, the college demonstrated it seriousness

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about diversifying the student population by creating a Diversity Programs Office to support its efforts of recruitment and retention. It was in the best interest of the college's diversity enrollment strategic plan to assure that ethnic minority students' level of commitment and persistence to graduation be supported by a sense of belonging and a connection to their environment established through academic and social programs (Harper & Associates, 2014; Harris & Quaye, 2009; Hurtado, 1999, 2002).

Faculty interaction was a key component of these participants' retention; thus, interest convergence is an element of the interaction process "whereby, a student's interest converges with the interests held by his or her faculty advisor and is supported by the organizational culture" (Felder & Barker, 2013, p. 4), including institutional mission, college climate, and culture. Javier found that his lab and research work presented opportunities for him to interact with faculty on research projects, which led to him to be accepted in the graduate program in poultry research (his plan B). Once Javier accepted the fact that he was not getting into the Vet School at MSU, his interest converged with his faculty advisor and Javier was then added to the research team and allowed to conduct research. However, Drake and Victoria had a more difficult time negotiating the climate of exclusion in the college until they became a part of the MANRRS student organization. At this point, the participants' interest converged with the college's mission to include, retain, and graduate more ethnic minority students. Although Drake felt race played a role in the faculty member's interactions with him, with the convergence of his and the faculty's interest in animal science came a new respect for him and his work.

Implications and Recommendations for Practice

The focus of these implications is on creating a space for additional dialogue between university student affairs and academic personnel and ethnic minority students in higher

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education. The space created challenged racism, the opulence of privilege, the status quo, and colorblindness via the participants' counter narratives. The African American and Latino students in this study were successful and graduated with an A-STEM degree, and were able to navigate the academic and social environments at MSU, a PWI. The participants had to overcome academic, social, and campus climate challenges as expressed in their counter narratives.

Implications

Unless there is a change in the support for ethnic minority students, there likely will be no increases in graduation rates. This study created a space for Drake, Victoria, and Javier's counter narratives so that implications could be raised for key faculty, administration, and student affairs professionals "to create transformative educational experiences" (Watson, 2014, p. 214). Gaining insight into the experiences of ethnic minorities is critical and has situated itself into a space to be seen as critical by advisors, faculty, administrators, policy makers, and student affairs professionals. Accessing ethnic minority student input to systematically improve higher education will garner not only a positive effect on higher education academic and social programming, but it will also translate into a more positive campus climate and environment for ethnic minority students (Hurtado, 2002).

Kuh et al. (2006) suggest that students are more successful and find meaning in their college lived experiences when they have someone with whom to identify. In essence, finding that sense of belongingness helps students to persist even in adversarial and disruptive environments. Higher education faculty and staff can gain a deeper understanding of ethnic minority students and their need to belong, to fit in, to be understood, and to demonstrate empathy for situations that have historically been dictated by racism, discrimination, and

stereotyping. When faculty members have a clear understanding and appreciation for the historical struggles of ethnic minority students and that racism is endemic, they can become a catalyst and supporter for these students and help to build a strong, supportive, and inclusive campus environment (Hurtado, 2002; Kuh et al., 2006). Having faculty of color as role models was important to the participants of this study. Ethnic minority faculty as role models can help ethnic minority students by challenging the dominant discourse of higher education. Often in higher education faculty of color are also marginalized for being part of a group negatively characterized as obtaining their job because of Affirmative Action not because of their qualifications (Ladson-Billings & Tate, 1995). Thus, the implication is without more faculty of color to serve as role models and advisors and in administration making policy decision spaces, the graduation rates for ethnic minorities will most likely not increase.

Faculty mentoring programs focused on ethnic minority students will not only hold the faculty accountable to university administration but will hold ethnic minority students accountable or responsible for their retention and progression to graduation. Faculty mentoring programs have been documented as an effective approach to build community for ethnic minority students (Kuh et al., 2006). " Interacting with faculty is positively associated with persistence, practical competence, and other measures of success and desired outcomes" (p. 86). Faculty-student interaction outside the classroom is just as vital to the success of ethnic minority students and their career aspirations.

The participants expressed limited knowledge about ethnic minority resources specifically implemented for student success (e.g., Developing Scholars, Project IMPACT, MAPS, and Diverse/Business/Agriculture Retention programs). Victoria was the exception as she was in the MAPS pre-college program.

Recommendations for Practice

Challenges for success presented themselves in the participants' narratives, which were driven by the salient patterns that occurred across all participant narratives. The counter narratives of Drake, Victoria, and Javier raised a number of issues related to racism, colorblindness, and interest convergence at the university and college level. The reasons for the participants' success (graduation) seemed to make it "clearly" evident why 70% or more of their peers failed to graduate from a higher education institution with an A-STEM degree (NCES, 2012). As a result of this study, recommendations for practice are made for: (a) ethnic minority students in A-STEM disciplines and (b) university personnel, faculty, and administration.

Recommendation for ethnic minority students in A-STEM disciplines. Once on campus and early in the process of moving to campus, ethnic minority students should get to know their advisor(s) and faculty. Drake and Victoria spoke about how Dr. Williams recruited them to MSU and the College of Agriculture, but they did not speak about how they used this vital resource (Dr. Williams) to navigate their freshman year on campus. Waiting to deal with issues of racism or discrimination by the student or university personnel often leads to the issue becoming unmanageable to the extent it could cost a student financially and academically.

Some of the difficult situations participants discussed in this study could have been prevented if they had developed self-advocacy skills and sought advice from advisors and faculty early in their college career. Developing self-advocacy skills is important for ethnic minority students. Peer relationships and communities established through MANRRS would be an excellent way in which to develop and enhance these critical skills. Establishing a strong foundation for self-advocacy is critical to the success of students (Morgan, 2012). If Victoria had used her vital resources, Dr. Williams and MANRRS, to discuss the situation she was

experiencing in the class the outcome may have been different. Not only would Victoria be able

to use the resources, it could have helped her develop those skills when needed to facilitate a

better conversation with the professor. Those kinds of conversations can help that faculty

member to understand the situation, his decision to be colorblind, in which Victoria was placed.

    Recommendations for student affairs professionals, faculty, and administration. The

current paradigm based on ethnicity, culture, and race is a deficit model (Harper & Associates,

2014) and is not always an accurate portrayal of every ethnic minority student as verified by the

counter narratives of determination and resilience portrayed by the participants. Instead, faculty,

administration, and student affairs professionals need to become more informed about creating

an inclusive campus environment and the need for ethnic minority students to feel like they

belong. Kuh et al. (2006), suggest that an early warning system put in place by the university can

help identify students who potentially meet the profile to dropout. MSU has implemented the use

of an early warning system called MAP Works, but did not have this program in place when

Drake, Victoria, or Javier were freshmen. As per Kuh et al. (2006), institutions need to invest in

both academic and social support services, which are designed for the needs of diverse student

populations, and student and academic affairs professionals "work together to improve the

learning climate in and outside the classroom to have the greatest impact on student success" (p.

73). Thus, the following recommendations are presented: (a) create a clear and focused

institutional mission on diversity and one that supports ethnic minority students; (b) create or

enhance faculty professional development programs with emphasis placed on diverse

pedagogical techniques geared for ethnic minority students; (c) reward faculty for out-of-class

educational contact with ethnic minority students; and (d) either hire or "grow" more faculty and

staff of color to cultivate role modeling and mentorships, and to enhance academic advising programs.

Additional research must be conducted on the impact of academic advising on ethnic minority students because there is an apparent gap in the literature on how academic advisors shape the undergraduate experiences (Museus & Ravello, 2010). More than 50% of the African American and Latino students entering higher education at a four-year institution will not graduate in a six-year time period (NCES, 2012). Therefore, universities should make a concerted effort to create or enhance diversity and multicultural education for front-line university personnel such as admissions staff, student affairs professionals, and advisors. Pascarella and Terenzini (2005) suggest that academic advising has an impact on low retention and high attrition rates. As indicated via the participant's narratives, their advisors had major influence on their academic decision-making and careers.

Racism is endemic and pervasive as verified by the experiences of Drake, Victoria, and Javier. A recommendation for practice would be to provide ethnic specific and department/college specific student organizations. Drake and Victoria identified MANRRS as vital to their survival at the university. MANRRS provided opportunities for networking for internships, future employment, and professional and social development, while Javier expressed remorse for not being involved in the student organization. According to Talbert et al. (1999), ethnic-specific organizations such as MANRRS are not only effective recruiting tools, they help with academic achievement and success, retention, and graduation from universities and colleges. MANRRS addressed the diverse needs of ethnic minority students "in an attempt to enhance the recruitment and retention of this population in the field of agriculture and related fields" (Talbert et al., 1999, p. 94).

Universities must do a better job of advertising such programs as MANRRS and maintaining contact with ethnic minority students who enroll in their institutions. Early warning notifications and student contact efforts allow a dialogue to be created between the institution and ethnic minority students, which is pivotal to their student success. Establishing contact with ethnic minority students goes beyond fliers, brochures, and pamphlets as a source of information. Institution should consider a more concerted effort to produce ethnic-specific advertisement, which would be more effective then general advertisements, fliers, and brochures (Morgan, 2012).

A final recommendation for practice is to "listen" to the counter narratives of ethnic minorities to gain a better understanding of their experiences (Fernandez-Bergersen, 2008). University personnel need to conduct individual interviews or focus groups, attend ethnic-specific student organization meetings, and conduct periodic campus climate surveys. It is important to speak to more than one ethnic minority expecting them to speak for "all members of their group" (Ladson-Billings, 2005, p. 232). Listening to students is recommended because ethnic minority counter narratives challenge the majoritarian/dominant cultures stories. While a White student's experience, with faculty, may be portrayed as helpful, challenging, and fun, a Latino student may describe their experience with the same faculty member as unapproachable, challenging, and horrible (Fernandez-Bergersen, 2008; Ladson-Billings, 2005). Which student is correct is not important but hearing the stories and creating an environment where everyone's "voice" is acknowledged and leads to a better experience for ethnic minority students (Ladson-Billings & Tate, 1995). Hilrado (2005) stated:

> Counter-stories can assist in analyzing the climate of a college campus and provide
> opportunities for further research in the ways that an institution can become inclusive and

not simply superficially diverse. This goal is important to keep in mind when institutions

work toward creating a diverse college community. An institution can aim to increase

the diversity of the campus by increasing the number of students of color. However, if

the institution does not make the necessary changes to make the campus inclusive, the

institution will have a difficult time maintaining diversity. In many cases, counter-stories

support the permanence of racism. (p. 55)

The lived experiences of ethnic minority students have been marginalized and devalued (Ladson-

Billings & Tate, 1995). As Rendón (1995, 1999) suggested, to promote and encourage student

success in ethnic minority students, they must be validated, feel supported, and be confirmed.

University faculty and other personnel must initiate "socialization" in and out of the classroom

(Hurtado, 2002; Kuh et al., 2006; Rendón, 1995, 1999).

Recommendations for Future Study

This study revealed findings about the success of African American and Latino alumni in

A-STEM disciplines at a PWI. The recommendations for future studies are intended to

encourage and motivate university personnel to consider the success literature on African

American and Latino students in A-STEM education and recognize the gaps in the literature. In

light of this, the following recommendations for research are provided based on the results of the

study:

1. One area needing further study is how ethnic minority students manage the first year

    of their college careers and identify vital resources. Additional research in this area

    would benefit university administration and student affairs professionals and provide

    insight into the challenges ethnic minority students experience and the ways in which

    they manage them (Morgan, 2012).

2. Much of the focus of the literature available is centered on STEM, but agriculture is a major area with STEM disciplines. A-STEM warrants additional research to broaden the scope of understanding about successful attributes for graduation. A-STEM is a discipline where enrollment has grown 157% with in the last decade (NCES, 2013), but graduation rates have not followed the same trend.

3. It is suggested that further research be conducted on how large PWIs are creating a sense of belonging in the College of Agriculture for African American and Latino students. Additional research in this area would yield insight into successful attributes that lead to graduation for ethnic minority students in A-STEM. More research needed on providing ethnic minorities a sense of belonging in and out of the classroom.

4. The participants in this study were African American and Latino students. Additional research is needed that focuses on Native Americans (male and female), Latinas, and other underrepresented groups of students. It is important to include a more culturally diverse sample and to research the intersectionality of race and gender.

5. Research is needed to learn about the effects of ethnic-specific student organizations (e.g., MANRRS) in the College of Agriculture on the retention and persistence of students. A qualitative study on this specific student organization would yield additional insight on the challenges ethnic minority students experience and ways in which they manage them. More research is needed on *grooming mentoring* (a specific component of MANRRS mentoring process) and the one-to-one interaction with ethnic minority faculty and staff members who "look" like them. Talbert et al. (1999) noted that although MANRRS is specifically geared for ethnic minority students in

agriculture, natural resources, and other related sciences (A-STEM), the model is generalizable and can be used in other disciplines.

6. Fundamental to understanding ethnic minority student success is faculty-student interactions and how they impact students. There are gaps in the literature discussing the effects of faculty-student interactions on A-STEM ethnic minority student major's grade point average, retention, and attrition rates.

Final Thoughts

The purpose of this qualitative interview study was to obtain insight into the academically successful undergraduate lived experience of African American and Latino alumni in A-STEM disciplines. The hope was that findings of this study would potentially help faculty, staff, and administration to better understand the African American and Latino students enrolled in A-STEM disciplines at a PWI. It is the researcher's hope that listening to and understanding the unique experiences of these African American and Latino alumni may encourage universities to provide greater supports for the success of ethnic minority students.

The university highlighted in this study has increased ethnic minority enrollment in A-STEM disciplines, which helps to stabilize the racial imbalances of university enrollments and creates a more welcoming campus environment. By honoring the voices of these students and providing a space for their counter narratives, it is the researcher's hope that universities and colleges will establish and/or sustain academic supports focused on the success of ethnic minority students and establish an environment in which more ethnic minority students may graduate with A-STEM degrees.

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Appendix A - Email

Email to Encourage Participation in Study

Greetings from the Diversity Programs Office, College of Agriculture,

As an alumnus of the College of Agriculture at Midwestern State University and former member of MANRRS, you will soon be invited to participate in a doctoral study focused on identifying success factors of African American and Latino A-STEM graduates. The title of this study is *Interview Study of African American and Latino Alumni of Agriculture Stem Programs: Exploring Reasons Attributed to Successful Completion of Their Bachelor's Degrees*. This doctoral candidate's research is intended to help to understand and identify factors that influence the successful matriculation from the alumni's perspective.

Data collected from interviews with alumni will provide insight to identify factors most strongly associated with successful retention and ultimately graduation. You will be contacted by email inviting you to participate in three open-ended, semi-structured interviews lasting approximately 45 to 60 minutes each, which will be conducted through Zoom video conferencing or in person.

I would like to take this opportunity to encourage you to participate. I believe the findings from this study will help in the College of Agriculture to identify success factors and better support undergraduate candidates to completion of the BA/BS. Thank you for your consideration.

Sincerely,

Dr. Zarella Williams, Assistant Dean
Diversity Programs Office
College of Agriculture
137 Beber Hall
Midwestern State University
Midwest City, USA 12345
(133) 123-4567
zWilliams@MSU.edu

Appendix B - Email Solicitation of Participants

Email Solicitation of Participants

Subject: Request for Participation in Study

Hello MSU Alumni! – Please read the email below about an opportunity to participate in a research study with a MSU faculty member.

Sincerely,
Dr. Zarella Williams, Assistant Dean
Diversity Programs Office
College of Agriculture
137 Beber Hall
Midwestern State University
Midwest City, USA 12345
(133) 123-4567
zWilliams@MSU.edu

My name is Ms. JohnElla Holmes and I am a PhD student and faculty member in the College of Education at Midwestern State University. Currently, I am working to complete a study as a part of my PhD program at MSU.

I am writing to ask that you consider participating in a research study that I am conducting. This qualitative interview study is designed to explore how Agriculture STEM (A-STEM) alumni, who identify as African American or Latino, from the College of Agriculture discuss the contributing reasons for the successful completion of their undergraduate program at Midwestern State University. By gathering information about the experiences of alumni, the goal is to better inform universities of the support needed for students of color. This study has received Institutional Review Board (IRB) approval, Approval (#) for the use of human subjects. Dr. Williams has also submitted a letter of support for the study (see attached).

Participation in this study is completely voluntary. Participants in the study are to meet the following: (a) graduated between May 2012 and December 2013 from Midwestern State University; (b) majored in one of the following – Ag Econ, which includes accounting, Commodity Merchandising, Finance and Insurance, and Natural Resources; Agronomy; Animal Science and Industry; Biological and Agricultural Engineering; Entomology; Food and Grain Sciences, Plant Pathology; and pre-Veterinarian Medicine; and (c) self identified as African American and/or Latino race.

Participants selected for the study will receive an e-mail arranging a 10 to 15 minute orientation to the study. During the orientation participants will be asked to complete an informed consent form. To protect and keep your identity confidential, you will be asked to select a pseudonym to be used throughout the research process.

Participants will also be asked to complete three separate interviews with the researcher. The length of the interviews will be about 45 to 60 minutes.   During this time you will be asked questions about your undergraduate experiences in the College of Agriculture at MSU. The data collected will be used in research contexts (e.g., analysis for presentations) where the names of participants will never be used, unless permission is obtained. Interviews will be conducted via ZOOM video conferencing or in person. The interview will be video and audio recorded. The interviews may happen at a time convenient for you (e.g., weeknights and weekends are available for interviews).

After the data are collected, I would like to send you the findings of my analysis and interpretations and have you review and provide any additional insight. Participants will have the opportunity to remove themselves or information provided from the study at any time without penalty.

At this time I would like to ask you to be a participant for my study. If you are interested in participating in this research study, please contact me via email by (date). After hearing from you I will arrange a time to set up a 10 to 15 minute orientation to the study. If you have additional questions about this study, please also feel free to contact me (johnella@MSU.edu, 785-532-1181) or my major professor Dr. Kenneth Hughey (khughey@MSU.edu, 785-532-5541).

Thank you!

Sincerely,

Ms. JohnElla Holmes, Doctoral Candidate
College of Education, SECSA

Appendix C - Informed Consent Form

MIDWESTERN STATE UNIVERSITY

INFORMED CONSENT FORM

Dear Alumni,

You are invited to be a part of a research study. The researcher is a doctoral learner at Midwestern State University in the College of Education. The information in this form is provided to help you decide if you want to participate. The form describes what you will have to do during the study and the risks and benefits of the study.

If you have any questions about or do not understand something in this from, you should ask the researcher. One important aspect of the research procedures is the interviews. The researcher wishes to utilize ZOOM video conferencing for the interviews versus face-to-face or phone/audio interviews. Do no sign this form unless the researcher has answered your questions and you decide that you want to be part of the study.

PROJECT TITLE:	**INTERVIEW STUDY OF AFRICAN AMERICAN AND LATINO ALUMNI OF AGRICULTURE STEM PROGRAMS: EXPLORING REASONS ATTRIBUTED TO SUCCESSFUL COMPLETION OF THEIR BACHELOR'S DEGREES**

APPROVAL DATE OF PROJECT: <u>Spring 2014</u>   EXPIRATION DATE OF PROJECT: <u>Fall 2014</u>

PRINCIPAL INVESTIGATOR: CO-INVESTIGATOR(S):   Dr. Kenneth Hughey: Ms. JohnElla Holmes

CONTACT AND PHONE FOR ANY PROBLEMS/QUESTIONS:	Dr. Kenneth Hughey – 785-532-6445 Ms. JohnElla Holmes – 785-532-1181
IRB CHAIR CONTACT/PHONE INFORMATION:	Dr. Rick Scheidt, Chair, Committee on Research Involving Human Subjects or Dr. Jerry Jaax, Vice President for Research Compliance and University Veterinarian, Midwestern State University.
SPONSOR OF PROJECT:	N/A
PURPOSE OF THE RESEARCH:	This qualitative interview study is designed to explore how Agriculture STEM (A-STEM) alumni, who idenitfy themselves as African American or Latino, from the College of Agriculture discuss the contributing reasons for the successful completion of their undergraduate program at Midwestern State University.
PROCEDURES OR METHODS TO BE USED:	The qualitative interview study guidelines will be followed. Participants will be asked questions through three different interviews each about 45 to 60 minutes. The participants will be asked to think about their undergraduate experiences and the meaning that they have made about their experiences. The questions will be open-ended semi-structured questions. The

interviews will be conducted utilizing ZOOM videoconferencing software or in person. A 10 to 15 minute orientation via ZOOM will be conducted to assure the participants' comfort via video conferencing, explain the research study, witness the signature of the consent form, and answer any questions the participant may have about the research or the interview process.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT:
If for some reason a participant is uncomfortable with the ZOOM video conferencing interview process, then every effort will be made to have the interviews in person, video and audio recorded. The goal is to utilize the system in which the participant is most comfortable.

LENGTH OF STUDY:	The estimated time that the participant is expected to participate is 45 to 60 minutes per interview. The participants' interviews will happen about 1 to 2 weeks apart. All data is anticipated to be collected within a 9-week period.

RISKS ANTICIPATED:	None are anticipated. It is not likely that there will be any harm or discomfort from/associated with this research. Participants do not need to answer questions that they do not want to answer or that make them feel uncomfortable. Participants may withdraw from the interview or study at any time with no penalties or repercussions.

BENEFITS ANTICIPATED:	There is no direct benefit for participation in the study. However, findings from this study may benefit college and university faculty and administrators working with African American and Latino students by providing real life examples of implementation to guide their decision making about in classroom and co-curricular activities provided for this population's successful graduation from A-STEM and STEM disciplines.

EXTENT OF CONFIDENTIALITY:	To protect and keep your identity and interview confidential, the researcher will use pseudonyms selected by the participant or assigned by the researcher. The data collected will be kept on an encrypted database system on a password protected laptop and iPad. All materials, documents, and artifacts will be scanned and also kept on the secured laptop. The researcher will not have originals of documents or artifacts during the research proceedings. Data collected will be used in research contexts where the source of the data or names of participants will never be used, unless permission is obtained. Information shared in the course of the study that has identifiable details the details will be removed or fictionalized to assure confidentiality. Three years after the conclusion of the research all materials (electronic and hard copy) will be destroyed as per IRB guidelines.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS:	N/A

PARENTAL APPROVAL FOR MINORS:	N/A

TERMS OF PARTICIPATION: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

(Remember that it is a requirement for the P.I. to maintain a signed and dated copy of the same consent form signed and kept by the participant)

Participant Name: _____

Date :

Participant
Signature: _____   _____

Witness to Signature: (project
staff) _____

Date :   _____

Appendix D - Broad Interview Guide

BROAD INTERVIEW GUIDE

There will be three *open-ended, semi-structured interviews* conducted in a *conversational* nature during the course of the study. Each interview will be 45 to 60 minutes in length. Broadly speaking, the questions will be used for *guiding question*s during the three interviews. Not all questions will be answered in one interview. It is the intent of the researcher to explore the responses in-depth for at least *three open-ended questions* per interview. However, depending on how the participant elaborates each question, the interviewer will remain flexible. Therefore, the questions that remain unanswered after the first interview will guide the second and the third interviews. Due to the semi-structured, open-ended, conversational nature of the interviews, probes will be used based on participants' response to further explore their answers *in-depth* after asking a broad open-ended guiding question. Some probes can be pre-determined and they are listed below. Other probes will emerge as a result of what the participant shares. However, all probes and questions will be broadly informed by the questions/statements presented below.

Broad open-ended guiding questions/statements for the interviews:

1. Tell me about a time that you decided to enroll in the A-STEM program at K-State in as much detail as you can remember.

   Probes to explore
   Reasons for entry into the program
   Prior background
   Family or other support system for decision-making
   Professional or academic aspirations

2. Walk me through your first month in the program, in as much detail as you can.

   Probes to explore
   Formal interaction with peers
   Formal interaction with faculty
   Informal interaction with peers
   Informal interaction with faculty
   Navigating around the campus
   Setting up as a student (e.g., registration, admission, orientation, week of wild activities)

3. Tell me about a time when you experienced some challenges in your undergraduate studies and how you handled them.

   Probes to explore
   Formal interaction with peers
   Formal interaction with faculty
   Informal interaction with peers

Informal interaction with faculty
Navigating around the campus

4. Could you draw for me a timeline of your experiences in your program from admission to graduation with critical milestone events on it? Tell me about the milestones in your diagram.

   Probes to explore
   What made the event critical?
   Formal interaction with peers
   Formal interaction with faculty
   Informal interaction with peers
   Informal interaction with faculty
   Sense of belongingness
   Sense of isolation
   Support system
   Formal and informal networks

5. Tell me about an event in your experience as an undergraduate that you think contributed to your successful completion from the program.

   Probes to explore

   Relationship with people described in the event
   Support from people, structures described in the event
   Challenges faced
   Ways of overcoming challenges
   Ways of remaining motivated to finish

6. Would you be able to think of people that might have helped you in your successful completion of the program? If so, can you offer some examples of their role in your success?

   Probes to explore
   Relationship with people
   Support from people
   Challenges faced
   Ways of overcoming challenges
   Ways of remaining motivated to finish

7. Are there any examples from your experiences in the program that you felt occurred to you because of your ethnic background? Can you please elaborate on them for me?

   Probes to explore
   Treatment in classroom environment
   Treatment outside of classroom environment in other informal academic spaces
   Interactions with peer
   Interactions with faculty

Interactions with staff
Experiences in organization

8. Talk to me about some support system you relied on when you were going through the program. Discuss how the support system helped you in as much detail as you can.

   Probes to explore
   Supporting organizations
   Supporting networks of peers
   Supporting faculty
   Supporting university resources

9. Could you think of a time in your experience in the program that you benefitted from being an ethnic minority? Please tell me about that experience in as much detail as you can remember.

   Probes to explore
   Scholarship opportunities
   Internship opportunities
   Access to certain resources (e.g., Bridge program)
   Mentoring programs
   Special tutoring sessions
   Travel and presenting opportunities

10. Is there anything you want to share with me about your experiences of being an ethnic minority who graduated from your program that I have not asked yet?

Appendix E - Document Analysis Protocol

DOCUMENT ANALYSIS PROTOCOL

In qualitative research, it is important to collect documents that will offer additional context to the study in order to gain a deep understanding of the participants' experiences. In this case, participants will be encouraged to share relevant documents they feel that might further explain their experiences. These documents will not be published in the dissertation report if they have identifying information that cannot be concealed. However, if there is no danger to revealing identities of the participant or any other associated people, if appropriate, some documents will be shared in the dissertation with the participant's written permission.

Example of documents could include but not limited to:

- Photographs (face pictures will be blurred if present)
- Assignments (names will be blacked out)
- Research projects (names and other potentially identifying information will be blocked out)
- Conference presentations (names and other potentially identifying information will be blocked out)
- Policies for organizations in which the participant belonged
- Program policies
- Program website
- Correspondences with faculty or peers (identifying information, names, details will not be revealed)
- Participants' journals if they maintained during their studies and they wanted to share voluntarily without any suggestion from the researcher (e.g., identifying information, names, or details will not be revealed)

In this study, participants' documents will be analyzed and explored for common themes and patterns. Themes and patterns will be investigated with the following analytical focus:

- Evidence of experiences that connects to ethnic background
- Degree of isolation
- Degree of belongingness
- Student involvement
- Degree and levels of benefit from being a student of an ethnic background
- Support from formal academic culture
- Support from informal academic culture
- Evidence of acceptance of formal and informal academic rules
- Evidence of resistance of formal and informal academic norms