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Examining the Effectiveness of a Minority Bridge Program on the Academic Success of African American Undergraduates at Predominantly White Institutions: A Mixed Methods Approach

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EXAMINING THE EFFECTIVENESS OF A MINORITY BRIDGE PROGRAM ON THE ACADEMIC SUCCESS OF AFRICAN AMERICAN UNDERGRADUATES AT PREDOMINANTLY WHITE INSTITUTIONS: A MIXED METHODS APPROACH

A Dissertation

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in partial fulfillment of the
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in

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The Department of Education, Leadership, Research, & Counseling

by
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ABSTRACT

The purpose of this study was to examine the effectiveness of a minority bridge program’s (MBP) impact on the academic success of African American undergraduates at a predominantly White institution (PWI). Minority bridge programs (MBP) are transition programs designed to academically and socially prepare students transition points in their educational careers. The goal of the MBP examined in this study was to acclimate minority students to college during the summer between high school and college. Although a few studies have been conducted on the effectiveness of MBPs, those studies are largely descriptive and lack empirical evidence. Drawing from the Model of Student Departure theory and the Model of College Students’ Sense of Belonging theory, this study employed a holistic mixed methods approach to study a MBP at a PWI in the U.S. South to determine if the program’s participants achieve a higher level of academic success and are retained at a higher rate than their non-participant peers.

The research questions addressed were directed toward comparing the academic success and retention rates of students of participants versus non-participants. Follow up interviews were conducted with a subset of the participants. This mixed methods study was retrospective in nature as the interview participants were in their senior year of college and the program was held the summer before their freshman fall semester.

The study revealed that MBP participants had significantly higher academic success and retention rates than non-participants. Combining the quantitative findings with the qualitative themes that emerged, two meta-inferences were formed: The MBP: (1) fosters a sense of belonging and (2) academically prepares African American students as they transition from high school to college. Results from this study have the potential to inform and provide insight to
university administrators and student affairs professionals regarding their decision making processes and practices related to diversity and retention.
CHAPTER I: INTRODUCTION

On February 24, 2009, President Barack Obama declared, “By 2020, America will once again have the highest proportion of college graduates in the world” (United States Department of Education, 2014). The goals of his agenda included “[creating] a clear path to the middle class” and “[to ensure] our nation’s economic prosperity” (United States Department of Education, 2014). Dishearteningly, such goals are not new aspirations for the country. For over sixty years, prior presidential administrations have also had similar objectives.

In 1947, President Truman’s Commission on Higher Education made recommendations for the college going rate to double by 1960 (Gilbert & Heller, 2013). However, the realization of college access barriers required the commission to focus, first, on addressing access issues instead of enrollment. One commission recommendation was to develop federal funding programs for those who could not afford college. The other major recommendation was to make public education equally available to all, regardless of race, creed, or national origin (United States & Zook, 1947). Despite this recommendation, equal access to higher education for African Americans in the United States was far from immediate. In fact, progress toward access to education did not start until the beginning of the Civil Rights Movement which was two decades later. In fact, some would argue equal access for underrepresented populations, such as African Americans, has yet to be achieved (Gilbert & Heller, 2013).

Accessing public higher education for African Americans has been a journey filled with multiple legal and physical battles by civil rights activists. While Historically Black Colleges and Universities (HBCUs) have provided access to African American students since before the Civil War, African Americans have only relatively recently gained access to predominantly White institutions (PWIs) (Albritton, 2012). Cases such as Brown v Board of Education (1954)
set legal precedence for equal access to all levels of education from elementary to higher education. Not long after that landmark case, Title IV of the Civil Rights Act of 1964 during the Johnson Administration reiterated the charge to desegregate public schools and gave the U.S. Attorney General authorization to file suits to demand desegregation (Dirksen Congressional Center, 2014). However, despite the legal mandates of desegregation, the reality of segregation, rooted in institutional racism, especially in many southern states, continued to exist for decades (Gilbert & Heller, 2013).

**Statement of the Problem**

Currently, access to higher education for African Americans is slowly improving. The number of African American undergraduate students increased 163 percent between 1980 and 2010. In 1980, African American students comprised only 10 percent of the undergraduate student population, compared with 15 percent in 2010 (National Center for Education Statistics, 2012). While this is encouraging news toward efforts to increase access to higher education, the National Center for Education Statistics (2013) reports the 6-year graduation rate of African American students is only 39.9% as compared to 62.1% for White students. Due to this large disparity in educational attainment, many PWIs realize this serious issue should be addressed, especially in this environment of educational accountability.

Literature related to low graduation rates among traditionally underrepresented students at PWIs shows African American students’ retention is affected by both academic and social factors (Guiffrida, 2005; Guiffrida & Douthit, 2010; Russell & Atwater, 2005; Strayhorn, 2012). Some researchers believe that African American students’ lack of preparation for college (Guiffrida & Douthit, 2010; Russell & Atwater, 2005) is the root cause of the disparity in their graduation rates. However, studies using variables such as high school GPA or SAT test scores
to control for academic preparation demonstrate African American students’ academic performance in college still lagged below that of the White majority. This implies that African American students face obstacles to success beyond those of academic preparation (Guiffrida & Douthit, 2010).

Among the other factors hindering the success of underrepresented students at PWIs is their lack of sense of belonging (Strayhorn, 2012). Strayhorn (2012) posits that college students’ sense of belonging refers to “students’ perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the group or others on campus” (p.17). He states, “sense of belonging may also be particularly significant for students who are marginalized in college contexts” (p.17). To ameliorate this issue, many institutions have implemented minority bridge programs (MBPs), designed to acclimate students to all aspects of university life. The challenge lies in determining how effective such programs are in increasing African American students’ rates of college completion and sense of belonging.

Research Questions

While research has been conducted on the effectiveness of minority bridge programs (Cabrera, Miner & Milem, 2013; Strayhorn, 2011; Garcia, 1991), Strayhorn (2011) posits, ‘‘empirical studies [of summer bridge programs] have remained largely descriptive and in short supply’’ (p. 142). Thus, this proposed empirical study will holistically investigate a MBP at a PWI in the south to determine if the program’s African American participants achieve a higher level of academic success and are retained at the institution at a higher rate than their African American peers who were not program participants. Specifically, this study will empirically address the following research questions:
(1) Does participation in a minority bridge program impact the academic success of African American undergraduates attending a predominantly White institution?

(2) Does participation in a minority bridge program impact retention of African American undergraduates attending a predominantly White institution?

(3) In what ways, if any, do students who participated in a minority bridge program believe program participation affected their academic experience?

The researcher hypothesizes participation in the MBP will increase both the academic success and retention of African American undergraduates at the selected PWI.

Academic success can be defined in many ways. Per Camara and Echternacht (2000) “there is no one agreed upon measure of college success” (p. 3). Despite that observation, many researchers utilize the dependent variable grade point average (GPA) to measure academic success (Camara & Echternacht, 2000; Geiser & Santelices, 2007; Jennings, Lovett, Cuba, Swingle, & Lindvist, 2013; Kitsantas, Winsler, & Huie, 2008). Undergraduate GPA is the universal standard colleges use for scholarships, course registration, and athletic team participation (Jennings et al., 2013). At most institutions of higher education, students are required to maintain a minimum average cumulative GPA of 2.0, where A = 4.0, B = 3.0, C = 2.0, and D = 1.0, in order to remain enrolled and eventually graduate (Roderick, 2011). Moreover, students themselves, express a desire to obtain high grades to secure recognition in honors programs, admission to graduate and professional schools, and even to obtain higher paying jobs upon graduation (Jennings et al., 2013). Accordingly, this study will define academic success as academic achievement designated by the dependent variable grade point average (GPA).
GPA was also chosen as the measurement variable for this study as suggested in the grounded theory work conducted by Jennings et al. (2013). In that study, interviews with students demonstrated the importance of GPA in demonstrating academic success. In recurring instances “academic achievement – primarily ‘getting good grades’ predominate over themes related to academic engagement” (p. 40). Subthemes of academic achievement were: grades, achieving milestones, participating in career-oriented activities, and improving skills. The researchers (Jennings et al., 2013) interviewed 66 undergraduates three times during their first year of college and once each semester thereafter through year four of college. Over 80% of the students “defined success using one or more of the academic achievement themes, the most common was achieving good grades.” Other themes of academic success identified in that study include life management and social and residential life (Jones, et al., 2013).

For the purpose of this study, the researcher will utilize participants’ first year fall semester cumulative GPA. Camera & Echternacht (2000) explain this criterion is most often used to measure success because “the courses that freshmen take are more similar and less variable than at any other year in college” and “freshman grade averages are highly correlated with cumulative grade averages” (p. 3). Moreover, fifteen years prior, Willingham (1985) stated that first year GPA is a high predictor of cumulative GPA as “there is far less variance in grades from upper level courses” (p. 7). Lastly, utilizing fall semester freshman GPA also applies to this study as the fall semester occurs immediately after participation in the summer MBP.

**Rationale**

The study of the effectiveness of MBPs in increasing academic success and retention will be valuable to administrators at PWIs who seek to increase the enrollment, retention, and graduation rates of underrepresented students. In accordance with President Obama’s agenda to
increase the number of American college graduates (United States Department of Education, 2014), university presidents and their administrations’ strategic plans, state governmental task forces, and higher education accrediting bodies, have objectives to address student enrollment and completion at their respective campuses (Kalsbeek, 2013). Thus, identifying the causes for the lower retention and graduation rates among African American undergraduates will assist university administrators as well as student affairs professionals in developing and administering programs and resources to help offset those issues. As African American students begin to benefit from the programs and resources, their increased retention and graduation rates will provide a measurable assessment tool for determining programmatic success. The empirical evidence will allow stakeholders, such as university leaders, legislators, and policymakers to ensure the attainment of their retention and completion goals.

Studying programs designed to increase the retention and success of African American students at PWIs is more important today than ever, given the national focus on performance-based funding. Performance indicators such as retention and graduation rates are now used to determine the percentage or amount of state and/or federal funding afforded to state universities who rely on that revenue to operate their institutions (Dougherty, Natow, Bork, Jones, & Vega, 2013). With the trend of decreasing state and federal funding, university administration will benefit greatly from achieving their graduation/completion goals for all demographics of students.

Additionally, as a reward for increasing access and persistence, President Obama’s fiscal year 2015 budget includes supplemental funding for institutions of higher education that “successfully enroll and graduate significant numbers of low- and moderate-income students on time, and encourage all institutions to boost performance, by providing grants to institutions
based on their number of on-time Pell graduates” (United States Department of Education, 2014). This is significant to PWIs with a population of African American students as African Americans experience poverty at a rate three times that of White students (National Center for Education Statistics, 2012).

Similarly in 2010, the Louisiana Granting Resources and Autonomy for Diplomas (GRAD) Act was passed. This act instituted performance agreements for all Louisiana public institutions of higher education. If those agreed accountability measures are met, the institutions will be afforded additional operational autonomies and tuition flexibility (State of Louisiana Board of Regents, 2014). One of the objectives of the performance agreements between the Board of Regents and each institution is to increase student success as defined by graduation and/or completion rates. The specific measures of student success include: first to second year retention rate, first to third year retention rate, same institution graduation rate, statewide graduation rate, and percent change in program completers at each degree level. If institutions are unsuccessful in achieving their specific student success objectives, they lose tuition authority, performance funding, and certain autonomies. As indicated in Table 1, based on their performance objective scores, each institution is issued an annual designation that indicates their tuition authority and autonomy status for the following year.

Because African American students at PWIs have lower graduation rates than majority students, university administrators must intervene. Intervention is even more important for Louisiana institutions as they must obtain an annual designation of “green” or “yellow” in order to retain their tuition authority and autonomies.

On a larger scale, academic success and retention of all students will benefit society as a whole. A more educated population has historically been known to pay higher taxes, possess
lower incarceration rates, and have higher civic participation rates (Museus & Quaye, 2009). A society with those characteristics is the goal of President Obama’s administration, as it has been the goal of previous presidential administrations. Today, in addition to meeting those societal goals, financial incentives are being offered to entice university administrations to achieve those goals.

**Definition of Key Terms**

Recurrent terms, derived from the literature, are used throughout this study to explain concepts and describe participants. For the purposes of this study, the operational definitions of these terms are as follows:

**Academic Success:** Academic achievement designated by the dependent variable grade point average (GPA) consistent with many researchers’ use of this variable to measure academic success (Camara & Echternacht, 2000; Geiser & Santelices, 2007; Jennings, Lovett, Cuba, Swingle, & Lindvist, 2013; Kitsantas, Winsler, & Huie, 2008).

**Minority Bridge Program:** A transition program designed to academically and socially prepare minority students for college during the summer between high school and college (Cabrera, Miner, and Milem, 2011; Swail & Perna, 2002; Strayhorn, 2012).
Retention: A measure of the rate at which students persist in their educational program at an institution, expressed as a percentage. For four-year institutions, this is the percentage of first-time undergraduates from the previous fall who are again enrolled in the current fall (NCES, 2015).

Conclusion

As America increasingly becomes a diverse society, university administrations must be cognizant of the needs of every demographic on campus. Because of the disproportionately low graduation rates of African Americans at PWIs, the administration of PWIs must seek strategies and programs designed to retain and graduate that subpopulation. Minority bridge programs could be an integral aspect of that success. This study will add to the existing body of research on increasing the retention and graduation rates of underrepresented students at PWIs while also providing practical strategies for their retention and success.
CHAPTER II: REVIEW OF THE LITERATURE

Introduction

Many Americans, including President Obama (United States Department of Education, 2014), believe a college education is the gateway to economic prosperity and the American dream (Museus & Quaye, 2009; Jennings, et. al, 2013). Despite the consensus on this belief, only 30% of the U.S. population holds an undergraduate degree (United States Census Bureau, 2014). After both President Truman and President Johnson worked to increase access to higher education in the mid twentieth century, more Americans enrolled in higher education. Since then, the attention has increasingly focused on the retention and persistence of college students to graduation and, to a lesser extent, access and enrollment, though those aspects are still important (Lang, 1992; Pitts, 2009; Tinto, 1993; Williamson, 2007).

Researchers (Cross & Slatter, 2004; Guiffrida & Douthit, 2010; Lang, 1992; Spady, 1970; Tinto, 1975) have long sought to find out why students drop out of college. While there are many factors that contribute to one’s decision to leave college, researchers (Cabrera, Miner & Milem, 2013; Cross & Slatter, 2004; Guiffrida & Douthit, 2010; Lang, 1992; Spady, 1970; Tinto, 1975; Tinto, 1993) agree that economic problems, psychological issues, and lack of preparation are all salient areas that contribute to student retention or departure.

While the persistence to graduation of all college students is important and complex, the retention of underrepresented populations, especially African Americans, presents a greater challenge (Bonner II & Bailey, 2006; Solórzano, Ceja & Yosso, 2000) as evidenced by low graduation rates of African Americans, roughly 40% compared to their White counterparts who graduate at a rate of approximately 62% (National Center for Education Statistics, 2013). Even when compared to other underrepresented populations, African Americans still rank lower in
persistence to graduation. For example, Latinos/Hispanics have a 51% graduate rate while Asian Americans have a 70% graduation rate (National Center for Education Statistics, 2013). The only ethnic subpopulation with a comparably low graduate rate to African Americans is American Indian/Alaska natives who also have a 40% graduation rate (National Center for Education Statistics, 2013).

African Americans have historically been pushed to the margins in many facets of society, not only education. Hence many suffer from multiple barriers to academic success such as financial disparities, lack of educated parents, and attendance in high schools that lack the resources of those attended by White students (Gilbert & Heller, 2013). Research states the disparities in higher education attainment between African Americans and Whites largely stem from economic or financial constraints, academic preparation, and blatant and/or inadvertent discrimination (Carter, 2006). Moreover, research (Cuyjet, 2006; Guiffrida, 2005) shows African American students tend to perceive a lack of institutional support, and as a result, struggle to properly connect with their campus environments. This issue becomes even more concerning at large, historically White institutions—where African Americans students are the racial minority (Strayhorn, 2012). While the enrollment of African American students in higher education has increased 163 percent between 1980 and 2010 (National Center for Education Statistics, 2012), more needs to be done to improve student persistence to graduation for this group.

A variety of factors contribute to low retention and graduation rates of minority students at PWIs. Several researchers cite precollege attributes such as type of high school attended and lack of rigor of its college preparatory program as detrimental to African American students’ success at PWI’s (Guiffrida, 2005; Kahn, Brett, & Holmes, 2011; Russell & Atwater, 2009).
Others find fault in faculty relationships and interactions with students (Foster, 1993; Freeman, Anderman, & Jensen, 2007; Guiffrida, 2005). Other researchers have found that social issues, such as racism, isolation, invisibility, and hypervisibility play an integral role in departure (Carter, 2006; Cuyjet, 2006; Davis, Dias-Bowie, Greenberg, Klukken, & Pollio, 2004; Guiffrida, 2005). This proposed study seeks to determine whether or not minority bridge programs can aid in reducing the impact of those factors.

**Theoretical Framework**

Even prior to the increased accountability demands placed on institutions of higher education, higher education professionals have always been required to effectively evaluate student retention and departure trends in order manage enrollment and adjust student programming (Caison, 2007). While institutional research staff calculate these metrics for all students, in aggregate, many decisions require metrics from distinct college student subpopulations. This study focuses on one distinct college student subpopulation, African Americans, and whether or not a MBP impacts their academic success. In determining which theories to frame this study, the researcher considered prior research on reasons students choose to drop out of college. In addition, she sought to contextualize how experiences of minority students at PWIs align with or differentiate from those global findings. Thus, to gain insight, the researcher utilized two theoretical frameworks for this study: Tinto’s (1975, 1993) Model of Student Departure and Strayhorn’s (2012) Model of College Students’ Sense of Belonging. Many of the concepts within these frameworks that describe why students decide to stay in college and how those factors help or hinder a student’s success overlap.
Tinto’s (1975, 1993) Model of Student Departure

Vincent Tinto’s (1975) Model of Student Departure evolved from Spady’s (1970) work on student drop-outs. Tinto (1975) acknowledged that previous research had been conducted on drop-outs from institutions of higher education, however he argues prior literature did not differentiate between those who were forced to drop out because of academic failure and those who voluntarily chose to leave. Tinto (1975) focused on the reasons students decided to end their studies.

In his model, Tinto (1975) explains how the interrelationship of a student’s pre-college entry attributes, the formal and informal interactions between the student and faculty and peers at the institution, and the student’s social integration affect his or her total integration into the institution. Tinto (1975) posits if those interrelated factors are not positive, students are more likely to decide to drop out of college. In 1993, Tinto revised and redefined the model to illustrate that there can be overlap in social and academic factors that could contribute to a student’s decision to drop out of college. According to Tinto (1993), those interconnected factors may be amplified by the student’s external commitments and personal intentions or goals. See Figure 1.

Tinto (1975) described pre-college entry attributes as the student’s academic ability as indicated by his or her high school grade point average, standardized test scores, and “personality and attitudinal differences” (Tinto, 1975, p. 101) such as lack of flexibility and impulsiveness. Tinto (1975) also listed characteristics of the student’s high school, including its faculty and staff, as a pre-college entry attribute. If these attributes are favorable for the student’s success, Tinto (1975) posited that the student’s personal goals and commitments will determine how well they integrate socially and academically into the institution.
Tinto (1975) argues that student integration must be both academic and social. Academic integration is achieved when students engage in the academic facets of college such as formal academic performance and informal relationships with faculty and staff. Social integration happens when students establish formal interactions with peers by participating in informal interactions with peer groups or in social situations beyond their coursework. Though these two aspects of college are inherently different, they overlap. Many times friendships and social interactions develop during academic interactions such as group tutoring sessions or participation in academic organizations. Tinto (1975) believes that if students do not integrate both aspects they are more likely to depart a higher education institution.
Strayhorn’s (2012) Model of College Students’ Sense of Belonging

Terrell Strayhorn (2012) posits that students succeed in college when they feel they belong there. His research led to the creation of the Model of College Students’ Sense of Belonging. This model and related theoretical framing is based on Maslow’s (1954) work, which theorizes belonging is a basic human need. See Figure 2. Strayhorn’s (2012) model shows that if students, within their social spaces and contexts, feel their physiological and safety needs are met, then they will experience a sense of belonging. This belonging contributes to students’ increased self-esteem and self-actualization. Once this is achieved, positive outcomes result (e.g. involvement and retention). Strayhorn (2012) believes the “absence of belonging is marginalization, isolation, or alienation from others” (p. 17). He posits that when students cannot achieve that sense of belonging, they likely face negative outcomes which can be as grave as depression and suicide.

Figure 2. Strayhorn’s hypothesized model of college students’ sense of belonging
In addition to basing his model on Maslow’s (1954) Hierarchy of Needs, Strayhorn (2012) also partially incorporated Tinto’s (1993) work. He agreed that involvement with diverse peers and faculty could influence “one’s sense of affiliation, membership, or sense of belonging on campus, which in turn could influence one’s subsequent goals and commitments and thus one’s decision to ‘stay in’ or leave college” (Strayhorn, 2012, p. 32). However, he argued Tinto’s (1993) model “had limited applicability to decisions of students of color” (Strayhorn, 2012, p. 32). Strayhorn (2012) makes this argument because his research demonstrates it is not best for students of color to assimilate and leave behind their past communities in order to fully integrate into the social and academic life of college. Therefore, he argues students should belong and “fit” (Strayhorn, 2012, p. 33) into their college communities while not having to totally assimilate or integrate.

**Research on Academic and Social Factors of Persistence**

**Academic Factors**

Several studies (Woosely & Shepler, 2011; Russell & Atwater, 2005; Ray & Mason, 2008; Patitu, 2000; Davis, Dias-Bowie, Greenberg, Klukken, & Pollio, 2004) focused on identifying predictors for academic success of African American students at PWIs. Some researchers attribute academic success to a student’s personal traits (Woosely & Shepler, 2011), while others (Ray & Mason, 2008; Russell & Atwater, 2005) attribute success to the major chosen by the student. The type and size of institution can also have a bearing in predicting a student’s academic success (Patitu, 2000). Finally, African American students’ academic self-efficacy (Davis, Dias-Bowie, Greenberk, Klukken, and Pollio, 2004) can affect their academic interactions with White faculty and peers.
Woosley, and Shepler (2011) quantitatively examined the variables of Tinto’s Student Attrition Model to determine whether they adequately described integration among first-generation students, and also to determine which variables would best predict integration through multiple regression analysis. Results indicate extracurricular involvement, commitment, and campus environment collectively explain the variance in institutional satisfaction. Thus, they support the theoretical understanding that early integration among first-time, first-generation students may function similar to student’s longitudinal adjustment-to-college life process. They also identify traditional variables of concern such as perception of campus environment and the ability to connect to campus via creating new friendships. This is important for African Americans students as 41% of all African American college students are first generation students (National Center for Education Statistics, 2012).

Ray and Mason (2008) specifically investigated the factors that produce a positive effect on African American male college student retention. In-depth interviews were conducted with 15 African American males from a mid-sized PWI in the south from August 2008 to August 2009. The study’s findings support existing literature on academic success. Respondents identified four major themes as social factors in retention of African American males: racial prejudice, faculty-student relations, social alienation, and classroom environment. They offered concrete suggestions for informing practice on ways to increase the retention rates of African American males at PWIs such as: emphasizing the importance of collegial faculty/student relations, providing strategies to understand and deal with racism, and encouraging the student to become involved in extra-curricular activities and programs.

Russell and Atwater (2005) interviewed 11 African American college seniors (eight females and three male) who were majoring in biology at a PWI in the southeastern United
States to find out what factors contributed to their persistence. These students were considered “successful” because of their classification as graduating seniors. From their phenomenological research, the researchers found four common themes for success as biology majors at this particular institution: “(1) parental influence; (2) teacher influence; (3) pre-college science experience; (4) and college science pipeline experience” (Russell and Atwater, 2005, p. 699).

The results indicate that all participants’ parents and teachers were influential as it pertains to: “(a) high expectations; (b) encouragement; (c) and career guidance” (Russell & Atwater, 2005, p. 706). In addition, each participant enrolled in advanced science and math courses as part of their college preparatory high school curricula, which they also attributed to their academic success.

Davis, Dias-Bowie, Greenberk, Klukken, and Pollio (2004) utilized purposeful sampling to select seven African American female and five African American male graduating seniors who were deemed “successful” to “obtain the first-person perspective” (p. 420) about the academic experience of Black students at PWI’s. They were asked to describe things that “stood-out” about their college experiences at a large, research-oriented, land-grant university in the southeast. They identified five emergent themes in the context of the participants’ having academic conversation with faculty and Caucasian peers: racial discrimination, difference, isolation, invisibility, and supervisibility - resulting in an overall decrease of self-efficacy. African American students reported felt they had to prove that they were worthy to be in class and at the university.

Finally, Patitu (2000) studied the reasons African American male undergraduate and graduate students chose large, predominantly White institutions and their level of satisfaction with them. The study used a quantitative research design, which consisted of a questionnaire developed by the researcher. Common responses given for why students were satisfied with their
institutions included: the academic reputation of the institution, relationships with faculty, staff, and other students, the collegiate experience, and the services, activities, and resources provided to them by student affairs staff.

**Social Factors**

Researchers have found that many students attribute their academic success to personal or social factors. Guiffrida and Douthit (2010) found that African American students value student-centeredness, meaningful relationships, and participation in organizations that provide them with social support.

In their qualitative study, Herndon and Hirt (2004) explore the impact and role of family in the lives of African American college students. They interviewed 21 students at large PWIs, 11 at an urban school and 10 at a rural school, as well as their family members. They identified three general categories of influence: precollege influences, early college influences, and late college influences and identified eight general themes: family influence, macro perspectives on race, factors of motivation, negotiating environments, sense of community, spiritual support, family expectations and role models from the interviews conducted. The researchers emphasize the major impact of family in the life of African American students at PWIs. This was reflected in aspects of discussions about navigating issues of race, spirituality and sense of community. They identify two groups of people who can assist African American students: current African American college students and African American alumni. According to researchers Herndon & Hirt (2001), members of those groups are the best mentors for newly admitted, less experienced, students. They further found recruiters, administrators of programs geared toward retention, and academic advisors of African American students should implement programs that foster
community, spirituality, and ways to deal with issues of racism that could potentially affect African American students at PWIs.

Correspondingly, research indicates that sense of belonging could be a factor in persistence (Garcia, 1991; Guiffrida & Douthit, 2010; Hausmann, Schofield, & Woods, 2009; Strayhorn, 2012). Hausmann, Schofield, and Woods (2009) examined sense of belonging as a unique factor in the model of student persistence. Using a three-wave survey method, the researchers collected and analyzed data from 356 African American and White college students. The study found evidence to support the inclusion of students’ subjective sense of belonging as having a direct positive effect on students’ institutional commitment and significant indirect effects on the persistence of African American students.

Transition from High School to College

Another important factor in the academic success and retention of African American students is their successful transition from high school to college. In addressing the transition of African American students to college, one study sought to identify academic and social factors that high school and college counselors can be mindful of when working with African American students and families to assist in their transition to college. In their summary of the relevant literature, Guiffrida and Douthit (2010) described the African American college experience at PWIs in an effort to assist counselors working in schools so they can better prepare their African American students and families for their transition to college. This summary of the research is also intended to assist college counseling centers, career counseling centers and academic advising at PWIs so they can better understand and support their African American students. Implications from the research reveal three main themes to be mindful of when working with African American students: (a) expanding the definition of student-centeredness that is
consistent with African American students’ expectations, (b) being mindful of the strong ties to family and friends from home that African American students and the complexities inherent in these ties, and (c) encouraging participation in student organizations that provide support for African American students and community. The researchers advise for counselors to exercise caution in deciding which interventions to use when dealing with African American students at PWIs. These factors are not all encompassing, nor are they relevant for all African American students at PWIs, but being mindful of these factors is encouraged.

Guiffrida (2005) also found that fostering meaningful relationships aided in a student’s successful transition from high school to college. The intent of his study was to determine, from African American students’ perspectives, which characteristics of faculty interactions with students facilitate meaningful relationships. He conducted a phenomenological study to purposefully sample 11 African American females and 8 African American males at a PWI who self-described themselves as high-achieving. Different from other studies, Guiffrida (2005) selected a PWI that “embraced diversity as a core value of the institution” (p. 704). He found that students valued student-centered faculty, who they described as “going above and beyond” (Guiffrida, 2005, p. 708).

The author likened faculty with those characteristics to Collins’ (2000) definition of othermothers – “women to assist blood-mothers by sharing mothering responsibilities” (p.178). According to Collins (2000), othermothering is a holistic concept that has reportedly been experienced in the African American community since slavery days. The premise is that all mothers can act as a mother to any child, by educating and socializing them, in the absence of their natural mother. In Guiffrida’s (2005) findings, students valued “expanded, even intrusive, academic, career, and personal advising” (p.707) in their “student-centered” faculty, who were
mainly identified as the African American faculty at their institution. The study suggested that non-African American faculty could also support African American students by “striving to adhere to their definitions of student-centered” (p.718).

**HBCUs and Academic Success**

As higher education researchers consider the factors contributing to academic success of African American students at PWIs, some consideration should be given to exploring how historically Black colleges and universities (HBCUs) differ in their approach to educating African American students. Exploring whether or not there are differences between the academic success of African American students attending HBCUs and that of those attending PWIs could provide insight into different strategies and approaches for retention and success. One resource to consider is Arroyo and Gasman’s (2014) theoretical framework of HBCU-based approach for black college student success. They reasoned that developing this framework was necessary because “ample research suggests that HBCUs as a group contribute to the success of Black students in special ways, and scholars even routinely champion them as exemplars that all institutions should follow for educating that population” (Arroyo & Gasman, 2014, p. 63).

In their framework, HBCUs are described as institutions with diverse student bodies, rooted in a “supportive environment” (Arroyo & Gasman, 2014, p. 64), which results in “holistic success” (Arroyo & Gasman, 2014, p. 71) of students. Some of the factors contributing to the supportive environment described by the researchers are: accessibility and affordability, opportunities for racial, intellectual and leadership identity formation, and values cultivation in the aspects of Black tradition, social justice and conservatism. The holistic success outcomes described are: graduation, career attainment, and civic contribution.
Although Arroyo & Gasman (2014) posit that HBCUs are successful at contributing to the success of Black students, Kim and Conrad’s (2006) study found there was no significant difference in the mean GPAs or degree completion rate of African American students at HBCUs and PWIs. Although there was no difference in the success of students at HBCUs over PWIs, there were differences found in other areas of the study. Kim and Conrad (2006) discovered that African American students who attend HBCUs tend to have different backgrounds from those who enroll at PWIs. African American students who attend PWIs are more likely to come from more affluent families. They also found that African American students attending PWIs were more academically prepared as evidenced by their higher GPAs and SAT scores.

Kim and Conrad (2006) found that while institutional differences of PWIs, such as facilities, quality of faculty, and opportunities for advanced study, are normally superior to those of HBCUs, African American students attending PWIs are less likely to feel their institutions “provide a more collegial and supportive learning environment for students and faculty” (p. 401). HBCU’s were also found to “provide more academic opportunities to African American students” (Kim & Conrad, 2006, p. 419) by allowing them to work with faculty on research at a higher rate than PWIs. Those intangible success factors should be considered when creating and implementing programs for African American students at PWIs.

**Bridge Programs**

Many institutions have implemented programs to aid in the success of African American student retention at PWIs. Minority bridge programs (MBPs) are one category of such programs. MBPs typically are offered during integral transition periods in a student’s college career. One transition period of utmost importance is the one from high school to college (Cabrera, Miner & Milem, 2013; Garcia, 1991; Strayhorn, 2011). Bridge programs held the summer between a
student’s high school graduation and first semester in college are traditionally called summer bridge programs. While research (Cabrera, Miner & Milem, 2013; Garcia, 1991; Strayhorn, 2011) has been conducted to study the effectiveness of summer bridge programs for minorities, Strayhorn (2011) posits, “empirical studies [of summer bridge programs] have remained largely descriptive and in short supply” (p. 142). Likewise, Cabrera, Miner, and Milem (2013) state “assessing the impact of summer bridge programs remains an elusive target” (p. 15).

In addition to the variance in implementation and composition of bridge programs, the funding source(s) and target participants of bridge programs also vary. The bridge program in this study targets African American students attending a PWI regardless of their income or family background. It is funded directly by the university. Other programs focus on other underrepresented populations such as other minority groups, low-income students, and/or first generation college students and may be funded by grants, governmental programs, or directly from institutional resources.

**Federally funded programs.** According to Swail and Perna (2002), “the most widely known [early intervention program] is the federal TRIO program” (p. 16) that was established as a part of President Johnson’s administration’s goals. One of President Johnson’s main objectives was to use education as a tool for economic growth and development (Cooley, 2011). His Higher Education Act of 1965 was designed to increase access to higher education for underrepresented groups who were impeded from attending institutions of higher education because of financial or economic hardships (Cooley, 2011; Dougherty, K, Natow, R., Bork, R., Jones, S., & Vega, B., 2013). It offered financial incentives to institutions of higher learning in order to increase research output, provided need-based aid to students, and began the conversation on pipeline programs designed to properly prepare K-12 students for college rigor (Cooley, 2011).
The TRIO program originally consisted of three subprograms: Talent Search, Student Support Services, and Upward Bound (Swail & Perna, 2002). Specifically, the Upward Bound program was created to encourage low-income students to explore the possibility of attending college by providing Saturday, after school, and summer workshops on college campuses (Swail & Perna, 2002). To participate in Upward Bound, students must meet certain admission criteria including: having successfully completed the eighth grade; being between the ages of 13 and 19; having intentions of attending postsecondary education; demonstrating need for academic support in college due to academic background or type of high school attended; being from a family with low socioeconomic status; and being a first generation college student (Walsh, 2011). By introducing low-income students to the possibility of attending college during high school, the Upward Bound program works to increase college access, enrollment, and retention for underrepresented populations.

Despite the goals of the Upward Bound program, studies reveal mixed findings regarding the achievement of the program’s goals of academic success for participants. For example, Walsh (2011) reports that:

Upward Bound has been found to increase aspirations and expectations, understanding and use of the collegiate support resources, applications for financial aid, parental involvement, core course taking in high school, ACT scores, and high school graduation and college attendance rates, maximizing the academic and sociocultural strengths for all race-sex groups. (p. 372)

Gullatt and Jan (2003) also found that Upward Bound reduced the number of remedial math courses required by participants in both high school and college. Similar successes were found in Seftor, Mamun, and Schirm’s (2009) assessment report, which stated that Upward Bound participants were more likely to enroll in college, complete a college degree and apply for
financial aid. Results of these studies show that Upward Bound is reaching its objectives and significantly increasing success of those underrepresented populations.

However, there are also studies that found that Upward Bound’s program objectives were not achieved. Laws (1999) found that “there was no statistically significant difference between the research group and the control group when comparing their mean freshman GPAs and dropout rates” (p. 141). Additionally, Anderson and Larson (2009) state:

since the early 1990s, Upward Bound has been consistently evaluated. The findings from these evaluations indicate that although the Upward Bound has shown minor gains in increasing the number of low-income students attending postsecondary institutions, it has little to no effect on students’ academic performance in high school and in college. (p. 72)

Similarly, Myers and Schirm (2000) discovered that approximately 40% of Upward Bound students dropped out during their first year. Those findings suggest that Upward Bound does not have an impact on the overall academic performance and retention of its participants.

In reviewing the entirety of the findings, there are areas in which Upward Bound has succeeded in assisting low-income students, and there are areas in which Upward Bound has not fulfilled each objective. This contradiction in findings provides an opportunity for continued research and highlights how summer bridge programs can be part of the solution for specific subpopulations, but the structure and function of such programs must be very strategic and research based, heavily assessed, and outcome-driven.

**Non-federally funded programs.** Upward Bound has strict admissions guidelines and objectives. Thus, findings from that program may not be generalizable to all summer bridge programs. Strayhorn (2011) quantitatively studied a non-federally funded summer bridge program to determine how well it prepared economically disadvantaged students of color at a PWI. Academic self-efficacy, sense of belonging, academic skills, and social skills were the
factors assessed. A self-developed, 83-item survey was administered to summer bridge program participants prior to them starting the program, after the program, and during the students’ first semester in college. Astoundingly, he received a response rate of 100%, which is highly unlikely when collecting survey data (Crawford, Couper, & Lamia, 2001). From pretest/posttest analysis, Strayhorn (2011) found bridge participants had statistically significantly higher academic self-efficacy and self-reported academic skills after completing the program. He also found the students’ collective sense of belonging and social skills were higher after the program, as determined by the difference in the means, even though the differences were not statistically significant. Strayhorn (2011) cites “self-assessments of students’ knowledge, skills, and abilities across the four main variables” (p. 150) and assumption of program effect as limitations to his study.

Similarly, Cabrera, Miner & Milem’s (2013) longitudinal study of the New Start Summer Program (NSSP) quantitatively studied the retention rates and first year GPA of 6,570 program participants over a period of 17 years. The NSSP was designed to help racial minority, low income, and first generation students adjust to college. Correlation and regression analysis indicated aggregate participation in NSSP can be associated with academic performance and persistence “above and beyond demographic characteristics and high school preparation” (p. 12). Researchers then used survey data to try to identify the specific aspects of the program that created those impacts. The significant finding from the survey data was that “NSPP participation fosters greater academic resiliency via opportunity and self-efficacy” (p. 14). However, the authors state a limitation in the generalizability of those findings as their sampling technique only surveyed the students who were retained during the first semester which biases those who perform better academically.
Social Capital and Bridge Programs

Regardless of funding source, if implemented correctly, bridge programs can theoretically build social capital for its participants. Social capital is defined as:

the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—or in other words, to membership in a group—which provides each of its members with the backing of the collectivity-owned capital, a 'credential' which entitles them to credit, in the various senses of the word. (Bourdieu, 1986, p. 51)

Rooted in Bourdieu’s (1986) work, Gasman (2008) also states that “by means of social capital, individuals may gain support from a social network” (p. 60). One of the main objectives of most bridge programs is to allow students to develop socially by becoming comfortable navigating the university. The participants are normally treated as a cohort and the groups are small enough to allow for interaction among the participants. The importance of social interaction aligns with both Tinto (1975, 1993) and Strayhorn’s (2012) frameworks, which state that social interaction is integral to a student’s retention and success. Social capital theory also suggests social networks may be key in a student’s academic success (Gasman, 2008).

Harper (2008) agrees and further states that participation in campus leadership activities and out of class engagements are vital in increasing one’s social capital. Harper (2008) posits “some may erroneously conclude that the only way to gain access to social and information networks is through alignment with White culture and perhaps even exclusive membership in predominantly White organizations” (p. 1048). This statement echoes Strayhorn’s (2012) framework as it pertains to minority populations at PWIs. In his study, Harper (2008) details the social capital obtained by African American males at a PWI who were frequently invited to serve on mainstream university committees and advisory councils because of the social capital they obtained by being leaders of minority organizations. Those students stated that relationships with
older members of their organizations helped facilitate their introductions and access to university administrators.

As one of the main goals of many MBPs is to provide social support to its participants, obtaining social capital may be an outcome of the group’s membership. By allowing minority students who may not otherwise have social capital in a predominantly White environment to obtain social capital by belonging to the MBP cohort, networking and upward mobility opportunities may arise that may have not have been possible had they not participated in the program. Also MBPs that provide peer mentors who were former participants may succeed in enhancing the social capital of participants as Harper (2008) encourages interaction from older student leaders to foster networking possibilities for African American students at PWIs.

**Impact of Higher Education Research on Student Affairs Professionals**

Cabrera, Miner, and Milem, (2013) advocate for efforts that bridge the work of higher education researchers and student affairs professionals (such as MBP program coordinators and advisors). They discuss how student affairs professionals are disconnected from research since they are primarily trained as practitioners, while researchers have the “publish or perish” (Cabrera, Miner, & Milem, 2013, p. 2) expectations that do not afford them time to work with student affairs practitioners. They cite Musoba (2006) who states “the potential of institutional data in assessment…remains largely unrealized” (Cabrera, Miner, & Milem, 2013). Therefore, studies using institutional data to assess the effectiveness of programs can help to bridge that fulfill that potential.

In addition to utilizing institutional data to make decisions, student affairs professionals are also expected to possess certain essential competencies regardless of their area of expertise (ACPA & NASPA, 2010; Schuh, Jones, Harper, 2011). Schuh, Jones, and Harper (2011) state
that “with competence comes credibility” (p. 335). Growth in these competencies also afford student affairs professionals “greater legitimacy” (p. 335) in the education community.

Utilization of these essential competencies, rooted in research, can afford professionals a better opportunity to be successful at creating innovative and effective programs and practices. Below, I discuss competency areas that relate to research on retention and academic success of African American students at PWIs, and therefore also relate to bridge programs that focus on those issues.

The main competency area that relates to this study is helping the university achieve its equity, diversity and inclusion goals (ACPA & NASPA, 2010). According to Chang, Milem, and Antonio (2011), Eric L. Dey’s (2002) work on diversity was instrumental in helping student affairs professionals to understand how beneficial enrolling a diverse student body can be. His work was not necessarily focused on racial diversity but it provided a framework for other researchers to look at the benefits of diversity including racial diversity. Chang, Milem and Antonio (2011) state “colleges and universities must have policies that govern their education efforts” (p. 53). If administrators state diversity as their goal, they must create policies that demand diversity. They suggest that in order for universities to achieve diversity, they must develop and support programs with goals of retention and educational outcomes. Chang, Milem, and Antonio (2011) pointed challenge student affairs educators and administrators by telling them that they “cannot simply sit on the sidelines and cheer for diversity as if it’s associated educational benefit are going to accrue magically” (p. 56). Therefore, work on increasing diversity must be intentional. Harper (2011) expounds on intentionality, which he defines as “reflectively and deliberately employing a set of strategies to produce desired educational outcomes” (p. 288). He states that “intentionality demands seeing oneself as an educator rather
than a practitioner, staff member, advisor, director or some other title...” (p. 291). Intentionality should be practiced when creating policies to support the institution’s mission.

Another important competency area relating to this study is competence in law, policy, and governance (ACPA & NASPA, 2010). Kuh (2011) states that it is an obligation of student affairs professionals to “establish policies and practices that induce, or in some instances, require students to participate in activities associated with various dimensions of student success” (p. 260). One example of such an institutional policy cited by Kuh (2011) is the requirement of students to attend summer orientation or advising sessions.

Many of the essential competencies are interrelated depending on the subpopulation with which one is working. Sax and Harper (2011) explain how social identities such as socioeconomic status and race and ethnicity, along with environments, can affect outcomes such as identity development and academic achievements. They describe the interaction between inputs, environment, and outcomes as “conditional effects” (p. 500) of college. Conditional effects are studied to try to predict how different subpopulations react to experiences during college. This is important when implementing programming on campus for diverse audiences because .... Sax and Harper (2011) state that “students who establish meaningful connections on campus - with peers, faculty, the curriculum and so on – stand to benefit most from college” (p. 500). However, different student populations may connect with different types of people, programs, and interventions, than others, which is why disaggregation of student populations is important.

Therefore, all student affairs professionals who work with minority bridge programs must work toward obtaining these and other essential competencies of the profession in order to create meaningful and effective programs that enhance the academic success and retention of these
students. They must intentionally (Harper, 2011) work to understand the factors that enhance student success while also understanding that diverse student populations should not be treated as homogenous groups. As they grow in their equity, diversity, and inclusion competency (ACPA & NASPA, 2010), student affairs professionals should also remember to disaggregate even seemingly alike populations when creating programs such as MBPs as even further diverse subpopulations may exist. For example, students from rural, inner city, and suburban high schools may have diverse programming needs.

**Current Study’s Contribution to the Literature**

Despite many colleges’ implementation of summer bridge programs, Strayhorn (2011) cites a gap in the literature in that, “empirical studies [of summer bridge programs] have remained largely descriptive and in short supply” (p. 142). Likewise, Cabrera, Miner, and Milem (2013) state “assessing the impact of summer bridge programs remains an elusive target” (p. 15). Therefore results from this study will attempt to add to the body of empirical studies of summer bridge programs. Grounded in Tinto’s (1975, 1993) model of student departure and Strayhorn’s (2012) model of college students’ sense of belonging, this study aims to show whether African American students who participated in a summer bridge program were more academically successful and retained at a higher rate than African American students who did not participate in the program.

Results from this study will: (1) inform practice by creating a model for using institutional data to assess the effectiveness of minority summer bridge programs at predominantly White institutions, (2) provide insight to university administrators around goals of diversity and retention of African American students and (3) assist student affairs professionals charged with providing outcomes relating to diversity and policy competency areas.
CHAPTER III: METHODOLOGY

Introduction

The literature in Chapter 2 highlighted the different factors that affect the academic success and retention of African American students at PWIs. Academic factors, social factors, and the success of the transition from high school to college all play integral roles in students’ academic performance and their decision to remain in college and graduate. Given the significantly lower proportion of African Americans who graduate from PWIs as compared to Whites who graduate, many institutions have implemented MBPs to increase the academic success and retention of African American students.

By providing an empirical study of a summer bridge program, this study attempts to fill a gap in the literature by providing both quantitative and qualitative data regarding participants of a summer bridge program. This chapter details the methodology for the study and includes the rationale for using a mixed methods approach while explaining the research design, intended sampling strategy, data collection strategies and analysis.

Rationale for a Mixed Methods Design

Each research paradigm has its own set of strengths and weaknesses. Quantitative research is based on the scientific method, hence that paradigm is sometimes privileged over qualitative research by some disciplines and traditionalists. In studies where it is important to report generalizable results, quantitative research provides stronger arguments as quantitative methods typically utilize concrete measurement, objectivity, and large sample sizes, which are important to generalizability (Hinkle, Wiersma, & Jurs, 2003). However, in order to provide generalizable results, large sample sizes are required. Often in practice, large sample sizes are hard to obtain. One example explaining the magnitude of the practicality of collecting large
sample sizes is demonstrated when survey data is to be collected. In web-based surveys, good response rates are typically measured at 30-40% (Crawford, Couper, & Lamia, 2001). Therefore, the original sample pool has to be quite large to accommodate for those typical response rates to provide a large enough sample to generalize findings. Finally, quantitative research should be free of the biases of the researcher, which may initially appear to be a strength. However, it could be seen as a weakness as large samples do not allow an opportunity for the researcher to provide context or meaning to the findings.

Conversely, a distinct strength of the qualitative research paradigm is the fact that the researcher is able to use context and social meanings when studying a problem. Often, as research on distinct subpopulations is dependent on many variables such as race, socioeconomic status, culture, etc., generalizing findings on a global level is neither necessary nor warranted. Therefore the mission of qualitative research is to find meaning for that particular study on the specific group defined in the study. Another advantage of qualitative research is the information gathered through observations, interviews, or other visual representations that allow the researcher to gather richer, more descriptive data than can be gathered through quantitative methods.

On the other hand, in order to collect rich, descriptive data, the researcher must invest more time conducting qualitative research than would be necessary in quantitative research. Observing people, groups and places, conducting interviews, and transcribing and analyzing qualitative data can take considerable time. Also it is often necessary for researchers to reanalyze this type of data in order to make connections and find themes. Finally, the fact that the researcher states his bias causes some traditionalists to minimize findings from qualitative research.
It is important to note quantitative and qualitative research should not be viewed as strict dichotomies (Johnson & Christensen, 2012). Rather, they should be viewed on a continuum and utilized based on the nature of the problem to be studied. Fairly recently, during the latter half of the 20th century (Creswell, 2009), some researchers have chosen to minimize the weaknesses of both paradigms by performing mixed methods research (Creswell, and Plano Clark, 2011; Johnson & Christensen, 2012). Creswell and Plano-Clark (2011) explain that the “central premise [of mixed methods research] is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone” (p.5). The worldview of pragmatism (Creswell & Plano Clark, 2011) is utilized in mixed methods research. The basic premise of pragmatism is that a researcher should consider “multiple viewpoints, perspectives, positions, and standpoints” (Johnson, Onwuegbuzie & Turner, 2007, p. 113) when conducting research. Pragmatism has also been defined “as what is ultimately important is what works in practice and what promotes social justice” (Johnson & Christensen, 2011, p. 32).

Therefore, to holistically examine the effectiveness of a minority bridge program on the academic success of African American students at a PWI, the methodological approach chosen for this study is mixed methods. Creswell and Plano-Clark (2011) define mixed methods research as:

…a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis and mixture of qualitative and quantitative approaches in many phases of the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone (p. 5).
The rationale for using a mixed methods design is to show complementarity (Onwuegbuzie & Leech, 2007) as the goal is for the qualitative results to help explain the quantitative results. A pragmatic methodology is appropriate as this research can be used in practice and is promoting the social justice of diversity.

**Research Design**

An explanatory sequential mixed methods design (Creswell, 2009) was utilized. Quantitative data was obtained and analyzed first. Then the quantitative results were explained with in-depth qualitative data. See Figure 3 for graphical representation of the research design.

![Figure 3. Sequential Explanatory Mixed Methods Design](image)

The first phase of the study was a causal comparative quantitative research study. It is classified as a retrospective, explanatory study (Johnson & Christensen, 2012) as former participants in the MBP make up the sample (retrospective). According to Schenker and Rumril
causal-comparative designs generally involved the use of pre-existing or derived groups to explore differences between or among those groups on outcome or dependent variables” (p. 117). Quantitative data was analyzed by performing statistical tests in SPSS. The researcher used the quantitative data to explain that the MBP aided in participants’ academic success, as evidenced by their statistically significant higher GPAs and retention rates than non-MBP participants.

The second, qualitative phase of the study was conducted to attempt to explain the quantitative results via conducting interviews with participants. See Appendix A for the interview protocol. Creswell (2013) posits that interviews provide the richest information in phenomenological research. Seidman (2013) also states, “if a researcher’s goal is to understand the meaning people involved in education make of their experience, then interviewing provides a necessary, if not always completely sufficient, avenue of inquiry” (p. 10).

This single-case design (Yin, 2009) case study will describe MBP participants’ experiences through a phenomenological lens (Moustakas, 1994). A phenomenological lens was chosen so the researcher could try to gain an understanding of the “universal essence” (Creswell, 2013, p. 76) of how the MBP impacts program participants’ academic success in retrospect, after the program. Pollio, Henley, and Thompson (1997) describe a phenomenological interview as an opportunity for a participant to describe his or her experiences with as little direction from the interviewer as possible. In this type of interview, the researcher is not concerned with cause and effect relationships; rather they are concerned with capturing the essence or what the experience means specifically to the participant.
As a former African American undergraduate at the institution herself, the researcher attempted to “bracket” (Moustakas, 1994) her personal experiences in an attempt to fully understand the phenomenon as described by the participants. Informed consent was obtained from each participant and each interview was digitally audio-recorded and transcribed verbatim (Creswell, 2013). Each participant was sent his entire transcript in order to obtain member checks (Creswell, 2013). Member checks were completed in an attempt to improve validity and credibility of the data by allowing each participant to affirm or correct the interview transcripts. Only five participants responded to the member check but all affirmed that their transcripts were representative of their interviews.

Transcripts were read multiple times, then Collaizzi’s phenomenological method of qualitative data analysis (as described in Anderson & Spencer, 2002) was used to analyze interview transcripts in Microsoft Word. In this method, significant quotes that directly pertain to the participants’ experiences were identified and labeled by using open coding (Creswell, 2013) with a meaning formulated by the researcher. In this study, both lines of text in the transcripts and entire sentences and paragraphs were used to derive meaning. The researcher highlighted the text and sentences with color codes that signified similar terms being used by different participants. Next, formulated meanings were clustered through axial coding (Creswell, 2013) to allow for emergence of emic (Guba & Lincoln, 1994) themes common to the interviews. In phenomenological research (Moustakas, 1994), the researcher must understand the phenomena through the actual experiences of the participants. By allowing the participants’ collective voice to be heard, emic themes (Willis, 2007) were able to emerge which is important in phenomenological research.
During the second phase, a self-designed survey questionnaire was administered to program participants. Qualtrics Survey Software was used to administer the questionnaire via e-mail. E-mail addresses of each member of the 2011 cohort were obtained from the MBP coordinator. The purpose of the survey questionnaire was to obtain descriptive statistics about each individual in an effort to better understand the demographics of the participants and their perceptions of how the program affected their academic experience. See Appendix C for the survey instrument. The survey questions are geared toward that population as this study is geared toward understanding how this particular bridge program affected the experience of its participants.

Once the qualitative and quantitative data were analyzed separately, the researcher looked across both quantitative and qualitative findings, in context of the theoretical frameworks, to draw meta-inferences (Cameron, 2009) that demonstrate how the qualitative results explain the quantitative results.

**Intervention**

The MBP used in this study is an eight week, tuition-free, residential summer program that typically provides 30-50 selected underrepresented minority students with fundamental academic, personal, and social skills in an effort to increase their potential to succeed in and graduate from the institution. The study site is a large research institution located in the southeast United States. The program is held during the summer between the students’ graduation from high school and their first “full-time” fall semester of college. Students applied for and were selected to participate in the program. The selection criteria include being a student who is an underrepresented minority, admitted to the university, available for the entire summer, and with plans to graduate from that university.
The program was founded in 1991 in an effort to recruit African American students to the university and retain them. Its mission is to provide a holistic approach to meeting the demands of the university both in and out of the classroom. Each summer the program is coordinated by an academic counselor from the university. The program coordinator’s sole responsibility is to work with that program and those students for the entire summer term.

As this was a residential program, students were housed in one residence hall and were grouped on floors by gender. They were each assigned a roommate, and peer mentors were also housed with the students. They were enrolled in six hours of academic coursework. Most students elected to take an English or math course and an elective course. As the university enrolled the cohort in these classes simultaneously, they were often placed in classes together with other members of the cohort. As a part of the program, the students were notified of their assigned academic counselors and were required to meet with them at least once during the summer.

Another academic aspect of the program was required study hall. Students were required to attend study hall for three hours each week. At study hall, students remained with the group the entire time. Some students chose to study in groups as they were often enrolled in the same courses as their peers. Others chose to study individually. The peer leaders also attended study hall and ensured that the students remained on task. They were available for tutoring if the students requested it, and they often informally provided study tips to the group.

Students were also required to attend a series of orientation type programs and seminars, designed to orient the students to college both academically and socially. Three days per week, the students gathered in a classroom to attend those programs which were called “Lecture Series”. At Lecture Series university administrators and faculty were invited to speak to the
cohort to explain to them how their units would benefit the students throughout their college careers. Some of the departments that hosted Lecture Series were the Office of Student Aid and Scholarships, Student Health Center, Center for Academic Success, Office of Career Services, Office of Multicultural Affairs, Office of Student Life, and representatives of various academic colleges and departments. During those meetings students were allowed to meet administrators and faculty in an intimate setting and interact with them one on one after the presentations if they desired.

One day per week, the students also met with African American faculty and staff of the university during a seminar called “Real Talk”. At Real Talk, the students were separated by gender and allowed to speak candidly with those African American university representatives about potentially controversial issues that may arise in college. Topics discussed ranged from race relations on campus, to relationships and preventing sexually transmitted diseases, to whatever else the students wanted to discuss that week.

Additionally, the group gathered on Thursday nights for a “Family Meeting”. During Family Meetings, peer mentors made announcements about upcoming events. This was also a time that students were encouraged to share events of their week with the cohort. Collectively they celebrated achievements and worked on strategies to improve problems the students encountered.

Students were also assigned an on campus work-study type job where they work ten hours per week and were paid minimum wage. The objective of those jobs were to not only provide the students with spending money, but also to allow them to develop time management and work related skills. In addition these jobs allowed some students to meet other staff on campus and maybe even develop mentor relationships.
Finally, some weekends field trips were planned and provided for the students. They traveled to Memphis, TN to visit the Civil Rights Museum and to Mississippi to visit the Stennis Space Center. After the summer term, the group engaged in no future formal program activities.

**Sampling Strategy and Data Collection**

A purposeful sample (Collins, Onwuegbuzie, & Jiao, 2007) of the students participating in the 2011 cohort of the minority bridge program was used for this study. This particular MBP was selected as the study site is a large, research intensive, predominantly White institution with a 10% African American population. The goals of the program are to “prepare selected under-represented minority students to make a successful transition from high school to the University” (Summer Scholars Program, 2015). The 2011 cohort was purposefully selected because, during the data collection period, the cohort was in their fourth year of college allowing for persistence to graduation, which is another measure of academic success (Russell & Atwater, 2005).

This sequential nested sampling design (Collins, Onwuegbuzie, & Jiao, 2007) involves both quantitative and qualitative data being collected from the MBP’s cohort of 2011. A sequential nested sampling design was chosen as Onwuegbuzie and Johnson (2006) posit that “unless the same individuals or groups are involved in both the qualitative and quantitative components of a study, constructing meta-inferences by pulling together the inferences from the qualitative and quantitative phases can be problematic” (Onwuegbuzie & Johnson, 2006, p. 56).

**Quantitative Sample**

The quantitative sample was a sample of the entire 2011 cohort of the MBP. An IRB application was approved to allow permission to conduct the study. Grade point average and retention data was collected on MBP participants from the program coordinator and that same information was collected on the matched control group from the institution’s registrar’s office.
The researcher requested information on all African American students who were first semester freshmen in Fall 2011 in order to properly select a matched pairs control group. Data requested from both participants and non-participants included: gender, ACT score, major, Fall semester 2011 GPA, current enrollment status, graduation status, and withdrawal date if applicable. Additionally, participants’ e-mail addresses were requested from the MBP coordinator.

Ninety-three students applied for the program but only thirty were selected due to the program’s budgetary constraints. All students who were admitted to the university were eligible to participant in the program, however funding was only available to cover tuition and room and board for 30 students. A selection committee consisting of faculty and staff of the university used a three star rating system to rank applications with a three being highest and a one being the lowest. Since all admitted students are eligible for this program, the committee seeks to select a diverse group of students based on gender, majors, hometowns, extracurricular activities, and letters of recommendation. Each committee member then sends their rankings to the program coordinator and her office compiles a spreadsheet of all scores. From those scores, each applicant’s average is calculated. The students are then ranked highest to lowest. The committee then meets to ensure that a diverse cohort is selected.

Of the 30 participants, 66.7% percent were females (n= 20) which is similar to the proportion of females to males in population of all African American students who enrolled in Fall 2011 (60% female). One participant did not complete the summer term, nor did she re-enroll in the fall semester, therefore her data was excluded from this study. Therefore, the study participants were n=29 of which 19 were female and 10 male. All students identified as African American. A matched pairs group of students who were eligible for but did not participate in the program was used as a control group. The control group was selected based on matched pair
criteria of African American students who began their studies in Fall 2011, but did not participate in the program. The control group was purposefully chosen to be students with similar demographic characteristics (gender, ACT score, major) as the participants. Similar demographic characteristics were chosen to decrease the threat of internal validity by matching the groups as closely as possible (Johnson & Christenson, 2012; Schenker & Rumrill, 2004) on as many characteristics as possible. The dependent variable studied was academic success of the students as demonstrated by their GPA, and the independent variable was participation in the intervention program (MBP).

Table 2 illustrates similar demographic characteristics of both the participants and non-participants.

Table 2. Quantitative Sample Demographic Comparison between MBP Participants and Non Participants in 2011

<table>
<thead>
<tr>
<th>Demographic</th>
<th>MBP Participants</th>
<th>Non Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students, n</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Gender of Students, n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Major College, n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities and Social Science</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Business</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Engineering</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mean GPA (0 - 4.0 scale)</td>
<td>2.80</td>
<td>1.93</td>
</tr>
<tr>
<td>Average ACT Score</td>
<td>24.86</td>
<td>24.21</td>
</tr>
<tr>
<td>ACT Score Range</td>
<td>22-29</td>
<td>22-28</td>
</tr>
</tbody>
</table>

Note. MBP = Summer minority bridge program, GPA = grade point average, ACT = American College Test

Program participants hailed from very diverse backgrounds. Although they were all traditional students, categorized by the fact that they were 17-18 years of age at the time of enrollment, their other demographic characteristics were varied. 73% of the students attended public high schools while 27% of the respondents reported that they attended private high
schools. Most of the students were Louisiana residents, but four students were out of state students. One was from Arkansas, one was from California, and two were from Texas. Sixty-five percent of the students identified their high school as being located in an urban or suburban community, while thirty-five percent attended high school in rural communities.

From a socio-economic standpoint, 55% of the students were from married, two parent households. Twenty percent of the students had divorced parents, and 25% of the students’ parents were never single, never married. Additionally, 24% of the students were first generation college students, while 75% of their parents held at least an associate’s degree. Twenty-five percent of the students’ household family income was under $40,000, while 30% earned over $100,000 which further demonstrates the diversity of the background of the students.

**Qualitative Sample**

Qualitative data to inform this research was obtained through interviews with participants in the 2011 MBP cohort. Interviews were conducted with a nested (Johnson & Christensen, 2012) purposeful sample of 10 program participants from the 2011 cohort. Creswell (2013) posits interviews provide the richest information in phenomenological research. The 10 students were a mix of males and females in proportion to the total number of males and females in the cohort. Six female students and 4 male students were interviewed. According to Creswell (as cited in Collins, Onwuegbuzie & Jiao, 2007, p. 273), a minimum sample size of 10 is recommended for phenomenological research.

The qualitative sampling technique used was maximum variation sampling (Johnson & Christensen, 2012). According to Cohen and Crabtree (2006), this purposeful sampling strategy should be used when the researcher wants to understand how a phenomenon is seen and understood by people of varying perspectives. In maximum variation sampling, Cohen and
Crabtree (2006) recommend that the researcher select a small number of units or cases that maximize the diversity relevant to the research question. In this study, interviews were conducted with both male and female students from various majors with varying ACT scores in order to achieve maximum variation in the sample. The participants were specifically targeted and recruited because of their individual characteristics in order to study the phenomenon from different perspectives.

This study employed a nested sampling design (Collins, Onwuegbuzie, & Jiao, 2007). Therefore the qualitative sample had to be taken from the original sample used for the quantitative phase of the study. Ten participants from the quantitative sample were chosen for the qualitative phase of the study. The researcher chose to employ maximum variation sampling (Johnson & Christensen, 2012) as the qualitative sampling technique. This purposeful sampling strategy was chosen as Cohen and Crabtree (2006) advised that this strategy be used when the researcher wants to understand how a phenomenon is seen and understood by people of varying perspectives (Cohen & Crabtree, 2006). Therefore, the researcher chose to conduct 45-60 minute interviews with both male and female students who chose differing majors with high, medium, and lower levels of ACT scores in order to achieve maximum variation in the sample. The participants were specifically recruited because of their individual characteristics in order to study the phenomenon from different perspectives. Table 3 shows the demographic characteristics of the participants were interviewed for the qualitative phase of the study. As shown in Table 3, each of these students is involved in extracurricular activities, and many of them hold/held leadership positions in those activities. Pseudonyms were used to protect the privacy of participants. Participants were informed that pseudonyms would be used and they were allowed to select their own pseudonym.
<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Major</th>
<th>Extracurricular Involvement</th>
<th>Classification</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brittany</td>
<td>Kinesiology</td>
<td>Black Student Union, MBP Peer Leader</td>
<td>Senior</td>
<td>F</td>
</tr>
<tr>
<td>Donald</td>
<td>Political Science</td>
<td>Fraternity, Black Student Union</td>
<td>Senior</td>
<td>M</td>
</tr>
<tr>
<td>Carsen</td>
<td>Kinesiology</td>
<td>Leadership LSU, Tiger 12, LSU Ambassadors, professional organization</td>
<td>Senior</td>
<td>M</td>
</tr>
<tr>
<td>Victoria</td>
<td>Business Management</td>
<td>Student Activities Board</td>
<td>Graduated Fall 2014</td>
<td>F</td>
</tr>
<tr>
<td>Briana</td>
<td>Education</td>
<td>LSU Ambassadors, Education Professional Organization</td>
<td>Senior</td>
<td>F</td>
</tr>
<tr>
<td>Jasmine</td>
<td>Biology</td>
<td>MBP Peer Leader</td>
<td>Senior</td>
<td>F</td>
</tr>
<tr>
<td>Andrew</td>
<td>Accounting</td>
<td>None</td>
<td>Senior</td>
<td>M</td>
</tr>
<tr>
<td>Morgan</td>
<td>Education</td>
<td>LSU Ambassadors, MBP Peer Leader</td>
<td>Senior</td>
<td>F</td>
</tr>
<tr>
<td>DQ</td>
<td>Kinesiology</td>
<td>Fraternity, Black Student Union, NAACP</td>
<td>Senior</td>
<td>M</td>
</tr>
<tr>
<td>Anna</td>
<td>Engineering</td>
<td>Student Activities Board</td>
<td>Senior</td>
<td>F</td>
</tr>
</tbody>
</table>
Data Analysis

The first research question, “Does participation in a minority bridge program impact the academic success of African Americans attending predominantly White institutions?” was measured quantitatively. Academic success can be measured by many factors. This study utilized the students’ Grade Point Averages (GPA) to measure academic success. This variable was chosen as GPA is the standard used by universities to measure satisfactory/unsatisfactory performance toward a degree. The researcher performed a one-tailed, directional, t-test with a .05 significance level to determine if participating in the MBP resulted in a statistically significant higher GPA than of those who did not participate. The one sample t-statistic assumed that the data followed a normal distribution with no outliers (Hinkle, Wiersma, & Jurs, 2003). A histogram was plotted to check for outliers and normality. Also z-statistics were computed and examined to check for normality.

The second research question, “Does participation in a minority bridge program impact retention of African Americans attending predominantly White institutions?” was also measured quantitatively. Students were labeled “retained” if they, at the point of data collection, were either currently enrolled in classes or had graduated from the institution. They were labeled “not retained” if they left the institution before graduation. As this variable is categorical in nature, a 2 x 2 chi-square test of independence was performed in SPSS at a .05 significance level to determine if participation in the MBP results in a statistically significant likelihood of being retained over non-participants. The assumptions for a 2 x 2 chi-square test of independence are that there are two or more categorical variables (participant versus non-participant and retained versus not retained) and they are measured at a nominal or categorical level (Hinkle, Wiersma, & Jurs, 2003).
Qualitative data was collected for the third research question, “In what ways do students who participated in a minority bridge program believe that program participation affected their academic experience?”, via interviews with former program participants and data obtained from the survey. Approximately 45-60 minute semi-structured interviews were conducted with ten cohort members who were selected through a maximum variation sampling strategy (Johnson & Christensen, 2012). The interview protocol was derived from the review of the literature that explained positive factors for retention of minority students at PWIs. See Appendix B for proposed interview protocol. Those factors were applied to aspects of the program as described on the program’s website and through an interview with the program coordinator. Informed consent was obtained from each participant and each interview was digitally audio-recorded and transcribed verbatim (Creswell, 2013). Qualitative data obtained from the survey instrument was combined with the interview transcripts and analyzed.

According to Maxwell (2013), “listening to interview tapes prior to transcription is as much an opportunity for analysis as is the actual process of transcribing interviews” (p. 105). Therefore all steps, from listening to the recordings, to making notes, and physically transcribing the interviews were integral in analyzing the data. Next, thematic analysis was performed by the researcher reading through the transcripts and then coding the data to aid in organizing the data and facilitate analysis. The identified codes were used to develop themes by relating similar codes (Creswell, 2013). Thematic analysis is described as “a method for identifying, analyzing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 79).

Trustworthiness was established in three categories. For truth value, credibility was ensured by triangulation in that more than one participant was interviewed with rich description. For applicability, this research can be transferable as purposeful sampling will be utilized and,
thick description of the participants’ experiences will be analyzed. Finally, neutrality was shown by connecting the participants’ experiences to literature (Creswell, 2013).

Once the qualitative and quantitative data were analyzed separately, the researcher looked across both categories of findings in context of the theoretical framework, to draw two meta-inferences (Cameron, 2009) to show how the qualitative results explained the quantitative results.

**Limitations**

A limitation of this study is the data were derived from a convenience sample of students who were chosen for the program through an application process at one MBP at a single institution. However, positive results from this program could be used by other programs or even other universities with goals of retention and success of African American students. Another criticism of this study could be the program participants were admitted to the MBP through an application and selection process, hence selection bias could occur. The rebuttal to that argument is that all admitted minority students are eligible for the program, therefore comparisons may be made among both participants and non-participants.

The researcher acknowledges that other factors may influence academic success and retention, therefore extraneous variables could also be a limitation. The control group was matched as closely as possible to control for the extraneous variables of the student’s gender, major college, and ACT score. Other variables that were considered in this study, such as whether or not the students lived on or off campus, the institution’s proximity to the student’s hometown, and the student’s motivation could also affect academic success and retention. Lastly, the researcher is a former MBP participant so bracketing (Moustakas, 1994) was important.
CHAPTER IV: RESULTS

Introduction

The purpose of this study was to examine the effectiveness of minority bridge programs on the academic success and retention of African American college students attending predominantly White institutions. A mixed methods approach (Creswell, and Plano Clark, 2011; Johnson & Christensen, 2012) was utilized to conduct the study. Using a sequential explanatory mixed methods design (Creswell, 2009), quantitative data were collected and analyzed first. After the quantitative data were analyzed, the researcher collected and analyzed qualitative data consisting of interviews with participants and responses from a self-reported survey questionnaire. Subsequently both quantitative and qualitative data were analyzed in tandem. The individual interviews were conducted in an effort to explain the quantitative results.

After both quantitative and qualitative results were analyzed individually, the researcher looked across both the quantitative and qualitative findings, in contexts of the theoretical framework, to draw meta-inferences (Cameron, 2009) to demonstrate how the qualitative results explain the quantitative results. Tinto’s (1975, 1993) Model of Student Departure and Strayhorn’s (2012) Model of College Students’ Sense of Belonging were the theoretical frameworks used to analyze the data. This chapter includes information related to the study setting, demographics of participants, data collection and analysis procedures, and the findings of the study organized by the research questions found in Table 4.

Study Site

The study was conducted at a large, public research university in the southeast region of the United States. The university supports land, sea, and space grant research and had an enrollment of about 30,000 in Fall 2011 which was the first fall semester of enrollment for the
study participants (Institution’s Office of Budget and Planning, 2014). The institution offers bachelors, masters, and doctoral degrees. There were about 5000 new freshmen in the fall semester of 2011.

Table 4. Research Questions and Methods

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1: Does participation in a minority bridge program impact the academic success of African American undergraduates attending predominantly White institutions?</td>
<td>RQ1: Quantitative Methods</td>
</tr>
<tr>
<td>RQ2: Does participation in a minority bridge program impact the retention of African American undergraduates attending predominantly White institutions?</td>
<td>RQ2: Quantitative Methods</td>
</tr>
<tr>
<td>RQ3: In what ways if any, do students who participated in a minority bridge program believe program participation affected their academic experience?</td>
<td>RQ3: Qualitative Methods</td>
</tr>
</tbody>
</table>

Table 5 illustrates that the University is a predominantly white university (PWI) by demonstrating the racial breakdown of the new freshman student population.

Table 5. Enrollment by Racial/Ethnic Category

<table>
<thead>
<tr>
<th>Racial/Ethnic Category</th>
<th>Percentage of New Freshmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American or Black</td>
<td>11.32%</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.02%</td>
</tr>
<tr>
<td>Asian, non-Hispanic</td>
<td>3.15%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5.02%</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>77.01%</td>
</tr>
<tr>
<td>Other or ethnicity unknown</td>
<td>3.47%</td>
</tr>
</tbody>
</table>
Quantitative Data Collection

An IRB application was submitted and approved to allow the researcher permission to conduct the study. Grade point average and retention data were collected on MBP participants from the program coordinator. That same information was collected from the institution’s registrar’s office on all students who enrolled as a first-time freshman in the Fall of 2011 and self-identified as African American. The researcher requested information on all African American students who were first semester freshmen in Fall 2011 in order to properly select a matched pairs control group. Data requested from both participants and non-participants included: gender, ACT score, major, fall semester 2011 GPA, current enrollment status, and graduation and/or withdrawal date if applicable.

The researcher selected the control group based on matched pair criteria of non-participants with identical demographic characteristics which included gender, ACT score, and major as those of the participants. Identical demographic characteristics were chosen to decrease the threat to internal validity by matching the groups as closely as possible (Johnson & Christenson, 2012; Schenker & Rumrill, 2004) on as many characteristics as possible.

Qualitative Data Collection

Forty-five to sixty minute individual interviews were held over a two week period with ten participants from the 2011 cohort. Six female and four male students were selected to reflect the proportion of females to males who were participants of that cohort. Maximum variation sampling was the strategy utilized in this study. The participants were selected based on their gender, ACT score, and major. Six females and four males were selected of differing majors and low, medium, and high ACT scores in order to obtain a varied sample.
Quantitative Data Analysis and Interpretation

The first research question, “Does participation in a minority bridge program impact the academic success of African American undergraduates attending predominantly White institutions?” was measured quantitatively. A one-tailed, directional, t-test with a .05 significance level and 95% confidence interval was performed to determine if participating in the MBP results in a statistically significant higher GPA than the control group of African American students who did not participate in the program. The independent sample t-statistic assumes that the groups are independent (no participants overlap groups); the data follow a normal distribution with no outliers, and homogeneity of variance (Hinkle, 2003). A histogram was plotted to check for outliers and normality and Levene’s Test for Equality of Variance was run to demonstrate homogeneity of variance. There was a significant difference in the GPA for MBP participants ($M=2.80, SD=.88$) and non MBP participants ($M=1.93, SD=1.17$); $t(56) = 3.20, p = 0.002$. These results suggest the MBP has a positive effect on academic success of the participants.

The second research question “Does participation in a minority bridge program impact the retention of African American undergraduates attending predominantly White institutions?” was also measured quantitatively. The Chi square test was chosen for this question as retention status is depicted as categorical data. The researcher coded each student who was currently enrolled or had graduated as retained (signified by the number 1 in SPSS). Any student who was not currently enrolled or had a withdrawal date before the spring semester of 2015 was coded as not retained (signified by the number 2 in SPSS). The assumptions for the Chi square test are that the variables had to be measured at an ordinal or nominal level and the two variables studied had to be categorical, independent groups (Hinkle, 2003). In this study, the two independent
groups were identified as those who had participated in the MBP and those who had not participated in the MBP.

Findings revealed that 22 out of 29 (76%) of MBP participants have either graduated from or are currently enrolled at the institution where they attended the MBP. Conversely, only 14 out of 29 (48%) of the non MBP participants either graduated or are currently enrolled. Results from the chi-square test indicated there was a significant difference in the retention status of MBP participants over non MBP participants, $\chi^2 (1, N=58) = 4.68, p = 0.03$.

As data was collected in the fourth year of study for the students, data on six-year graduation rates was not available. Six-year graduation rates are often used since Congress passed the Student Right to Know Act in 1990 (Glenn, 2010) which required institutions to report the number of students who complete their program within 150% of the normal time to completion. This metric assumes that the normal time to completion is four years. Although it is too soon to report the six-year graduation rate of this group, at the point of data collection, which was not quite four years into their studies, four of the participants had already graduated, and the majority of students anticipated to graduate within one year.

Therefore as data analysis indicates, there is a significant difference between both the academic success and retention of MBP participants and those that did not participate in the program. The need for the researcher to discover how the participants believed the program impacted their academic experience was crucial to the findings in this study. The next section outlines the qualitative data analysis and interpretation.

**Qualitative Data Analysis and Interpretation**

Qualitative data was analyzed for the third research question, “In what ways if any, do students who participated in a minority bridge program believe program participation affected
their academic experience?” Forty-five to sixty minute interviews were conducted with ten MBP participants from the 2011 cohort using a maximum variation sampling strategy (Johnson & Christensen, 2012). See Appendix B for the interview protocol.

In addition, a researcher-prepared questionnaire was administered to the entire 2011 cohort utilizing Qualtrics Survey Software. The purpose of the questionnaire was to glean additional demographic data about the participants. The questionnaire was emailed to each participant who was currently enrolled or had recently graduated from the institution (i.e. those who had valid institutional email addresses). Of the 22 retained or recently graduated participants, 20 completed the survey which is a 91% response rate. Appendix C demonstrates the questionnaire in its entirety.

Both interview transcripts and questionnaire results were analyzed in tandem. As a result, four major themes emerged to describe how the MBP affected the students’ academic success: (1) Belonging; (2) Networking/Social Capital; (3) Family/Othermothering; and (4) Preparedness.

**Theme 1: Belonging**

During the interviews, each of the ten participants either blatantly stated or alluded to the fact that the MBP made them feel as though they “belonged” at the university without the researcher ever having used that term. This directly correlates with Strayhorn’s (2012) Sense of Belonging Theory which posits that students succeed in college when they feel like they belong there. In addition, 100% of questionnaire respondents state that the MBP aided in their social life at the institution. Brittany, who was a senior kinesiology major, pointedly explained:

> I think as a minority or as a Black minority, it’s different from being a regular student because that feeling of belonging at a university can be missing. I really felt like I belonged with the other Summer Scholars.
To Brittany, simply being around other Black students made her feel comfortable and a part of the institution. She also felt a common bond with the other program participants as she added, “we were all very motivated. Kinda like we had all grown from… I say good backgrounds in the sense of caring about our work, caring about school, caring about our grades, wanting to be successful.”

Similarly, Carsen, who was also a senior kinesiology major, appreciated the fact that his peer participants looked like him and had similar goals as well. He added:

Engaging with students who look like me that are goal driven and had the same interests and pushed me. A lot of my success is getting those students to push me like Carsen you’re gonna do great. Having that support throughout college with peers is different than faculty. That’s their job to tell you that. But when a friend who looks like you and wants you to be successful that’s a big thing that pushed me...a circle of people who all wanted each other to do great helped me with my success.

Brittany and Carsen were both in-state residents. Briana, however, mentioned that she was from out of state and was very afraid that she would not “fit in”. However when asked which aspects of the program helped her succeed she stated:

…the main thing is having that group of 30 people who are just as scared as you are, just as nervous as you are, going through what you’re going through and you all figure it all together. None of us know what we were doing or what to expect, but we knew we had each other and that really helped in the end. I’m very, very big on relationships, so that was a big factor. Having those familiar faces on campus and meeting those faculty members and resources that you can access was very helpful.

Donald, a senior political science major, felt a bond born from living in the residence hall with the other students in the group. However, he also appreciated the fact that they were all together working toward the same goals. He said:

It was weird at first living with that many people but you could literally knock on someone’s door and say ‘what you doing’ or ‘have you started on that math homework’. It was that kind of like close knit group of people who are doing the same thing as you.
In a very fitting summary quote for the theme of belonging, DQ, who was heavily involved leadership activities, said:

When you’re a summer scholar you feel like you belong. You don’t have to be nervous because you’re doing everything together. It gives you 30 friends automatically. Here are 30 friends, you will live together 2 months - you will be friends.

As stated previously, Strayhorn’s (2012) Sense of Belonging Theory has roots in Tinto’s (1975, 1993) Model of Student Departure Theory. Similar to the concept of “belonging,” Tinto (1975, 1993) defines the scenarios described in the aforementioned quotations as social integration. Tinto’s findings proposed that a student’s social experiences within the institution explained why some students decide to leave college while others choose to remain. According to Tinto (1993), the three stages of social integration that students encounter are: separation from their past communities, transition from high school to college life, and then full assimilation into their new college community. The quotations above directly relate to Tinto’s (1993) first stage of social integration – separation from their past communities.

However, these students immediately form a new community which blends Tinto’s (1975, 1993) theory with Strayhorn’s (2012) Sense of Belonging Theory. Strayhorn’s (2012) research demonstrates it is not best for students of color to assimilate and totally leave behind their past communities in order to fully integrate into the social and academic life of college. Although these students left their individual past communities, they started their college careers with students with whom they felt like they “belonged”, who looked like them and were doing the exact things they were doing; this helped them form a new community or “family” which is important in the African American culture (Herndon & Hirt, 2004).
Theme 2: Networking/Social Capital

The next theme that evolved was related to networking and social capital. Most participants agreed that the MBP afforded them a level of networking that allowed them to earn social capital at the university. As Harper (2008) indicated, peer mentors may enhance the social capital of participants. In this program, peer mentors, who were former program participants, fulfilled this role. Participants indicated that interaction with older student leaders fostered networking possibilities for them especially as it relates to extra-curricular organizations and leadership roles. For instance DQ stated:

Anything that I have done at LSU has been Summer Scholars affiliated. Somebody from Summer Scholars has been in it or over it. My mentor for summer scholars was the president of the chapter [of his fraternity]. If you look at any black leader on campus, 4/5 were in Summer Scholars.

In addition to peer mentors contributing to the social capital of participants, fellow cohort members also added to the social capital of the participants. When asked how the MBP helped him make a successful transition to college, Andrew, a senior accounting major, said:

It (MBP) really helped prepare me more than other Black students, I think. Also not just the academic route. Many Blacks, it’s kind of…I think if you even if you came from a high school where you knew people who were coming here, it’s not as easy to network out as a Black student. There aren’t many Black socials or events, but I had this network of Black students who were plugged into other areas. It wasn’t just my high school friends. It was just a group of Black students I can deal with.

Jasmine, a graduating biology major, also added:

We all knew each other. My boyfriend was also a summer scholar. I have a lot of connections. It’s like you walk around and are like “oh you’re a summer scholar” and I’m like “oh ok” well hey. I’ll see you later. It’s like a fraternity thing. Automatically it’s like oh a connection. We’re friends now. We say “once a scholar always a scholar.”

In addition to gaining social capital, some participants valued the networking opportunities afforded to them during the Lecture Series. Lecture Series was a series of workshops offered each week designed to acclimate and orient students to the university. They
attended sessions with campus departments such as the Office of Student Aid and Scholarships, the Office of Student Life and Enrollment and representatives from their major colleges. From those interactions, students expressed gaining an invaluable network of individuals who they felt were genuinely interested in seeing them succeed at the institution. When asked about Lecture Series, Morgan, a graduating senior majoring in elementary education stated:

I knew about resources before other people did, and not only did I know about them but I’ve already met the people who are over them, so it’s like I feel I can personally go to them because they met me individually, so they know my name.

The networking aspect of the Lecture Series resonated with many of the participants. DQ’s take away from Lecture Series was:

That was what put me on with a lot of people I know. The higher up people would talk to us and we would talk to them one-on-one after that so that was a great networking opportunity. They really knew us.

Jasmine even explained that she was offered a student worker job by one of the speakers at Lecture Series, which was a great benefit of networking for economic gain. Carsen added that the networking helped him shape his college and even professional careers:

… I’ve been to three different countries, three different continents. I’ve learned Spanish. That was something I did not even think about in high school. I’ve had so many experiences like the Black Male Leadership Initiative, which kinda got tailored in with the program. And you know Dr. [administrator]. I met her in Summer Scholars and she was doing the real talk session so she kept up with us and we ended up doing the Black Male Leadership Initiative. I’ve gone to over 20 conferences in my college career travelling all over the country and worked on executive boards. That all started with Summer Scholars. Like I took etiquette classes and I’ve had to go to so many things with etiquette like last night at the banquet. I learned all that great stuff in summer scholars. I was talking to a woman with me last night and she was like where’d you learn all this and I talked about my etiquette classes from Summer Scholars and how they were so fundamental to like my growth into being a professional.

In addition to the networking aspect of Lecture Series, the fact that the participants formed meaningful relationships with these “higher level administrators” made the participants feel important and that they mattered at the institution. Strayhorn (2012) posits that “sense of
belonging is related to, and seemingly a consequence of, mattering” (p. 21). He adds that “to satisfy the need for belongingness, the person must believe one cares” (Strayhorn, 2012, p. 23). By these administrators, who the students hold in high regard, taking time out of their busy schedules to meet them individually and showing them that they truly care about them, many of the students felt they mattered at the institution. Brittany gave the example of meeting a mentor in her department. She said:

Dr. [professor], who works in Kinesiology… I met her there (in the MBP). She’s very important if that’s your major. It’s a good idea to know her. She talks to the students every year. I’m taking her internship now. That was a hook up from Summer Scholars.

As indicated above, participants valued the one-on-one interactions with faculty and administrators. They appreciated the fact that they met influential people early in their career and as Morgan stated “they knew my name.” These examples also directly relate to Tinto’s (1975) theory as he posits that academic integration is achieved when students engage in the academic facets of college such as formal and informal relationships with faculty and staff.

These quotations support the second and third stages of social integration in Tinto’s (1993) theory – transition from high school to college life and incorporation into the college community. Tinto (1993) suggests that support from institutional programs can aid in the student’s ability to persist. Therefore the MBP provides a platform for that transition that allows for prior MBP participants and established and influential faculty and staff to help students feel acclimated and welcomed at the institution.

Theme 3: Family/Othermothering

The Family/Othermothering theme was quite interesting as every participant also had a recurring theme of the MBP being their family away from home. When speaking about his informal interactions with the MBP participants, DQ stated:
We would have dinner at 5 at The 5 (laughs) because we all had a meal plan, so we chose to pile in cars and go to The 5. Some of us went to church together and ate after church at Chimes or Golden Coral like you did when you were growing up with your family.

For DQ, the program’s benefits surpassed the daily programs, but the camaraderie and fellowship with peers were instrumental to his experience.

Victoria, a business major who graduated in less than four years, reminisced on her first day in the program:

On the first day of Summer Scholars they always say ‘Look around. These people are gonna be your friends by the end of the summer’. First you’re like whatever - this is cliché, cheesy or whatever and literally by the end you’re like crying, sad. You’re happy because you can still spend the rest of college together, but you’ve really got close to these people and you really do form this crazy bond even with people you don’t like. It’s not…you know, there’s nothing that compares to it.

Similar to DQ, Victoria built meaningful relationships throughout her time at MBP. These relationships assisted in her feeling comfortable away from home and provided a source of support with students who are similar to her and going through what she is at the same time. She, along with other participants, described strong, deep, and helpful relationships that will last far beyond their time at MBP. One of the most ideal ways for students to connect with one another was their time in the residence halls. When describing living in the residence hall, Briana said:

It was nice because there was always someone who was up when you were up. There was someone who wanted to go to sleep there was someone who wanted to go to sleep. If you wanted to eat, there was someone who wanted to eat so you never had to be alone unless you wanted to. There were times I just wanted to be in my room because I was going through a bad breakup and they would literally come into my room and make me get up and have fun. And I’m thankful for that because I would have missed out on so many friendships had I just been crying in my room. It’s just nice because it was very open door. Anyone felt comfortable knocking on anyone’s door just to hang out or just to talk. It really helped our relationships. If we would have been living separately we wouldn’t have had as many relationship and connections. It definitely changed things for the better.
DQ agreed and added:

We were like a family. We always kept it real. Like your sister might say, ‘Those shoes don’t match’. Go change them if you want to go somewhere with me. Of course, we were friends, but it was much more. We are a family- bottom line.

Many participants also spoke very highly of their “Family Meetings” that Brittany described: “Every Thursday we had family meetings to talk about plans for the upcoming week, any issues, concerns or time for us all to talk. Scheduled time for us all to be together.” This commentary represented the group’s shared value regarding the fact that they had a family away from home.

Literature (Collins, 2000; Guiffrida, 2005) also states the African American culture values “othermothers” who are described as female role models in the community who serve as a mother away from home (Guiffrida, 2005). In this study, it appears that the peer mentors served the “othermother” role. Andrew described his peer mentors:

The mom role came from our peer leaders. We called one “Mama Chelse” (laughs). She still texts me to ask how I’m doing. And I think, honestly, once Chelsea and Miracle, who were the female counselors, left, Mrs. Yancy (the program advisor) became a motherly figure for us.

DQ agreed and jokingly said, “Peer leaders would give announcements. They would get on people. You haven’t been going to work and you haven’t done this. That really helped me transition from my momma to total freedom.” The MBP program provided the space for students to develop personally while also respecting their need for support. Specifically, within the African American culture, the “other mother” role is extremely important (Collins, 2000), and MBP was able to provide this for student success.

In addition Strayhorn (2012) cites the fact that sociologists argue that people “internalize and project the values of others around them” (p. 21). He further relates this type of value internalization as similar to the cohesion of families and street gangs. Similarly when these
students are in the MBP, they are with the same group of like-minded students twenty-four hours a day, seven days a week. Strayhorn (2012) posits that mattering can act as a motive. As the group works and socializes together, it can increase its sense of mattering at the institution and become more like a family.

**Theme 4: Preparedness**

The final major theme that emerged was that the participants consensus that the program prepared them for success in college. Briana became an orientation leader as a result of her experiences with peer mentors in the program. When reminiscing on the guest speakers from the MBP’s Lecture Series she said:

> I remember them bringing in a lot of people to speak to us specifically—from how to succeed academically and that was super beneficial because we were able to see like how to utilize those resources, see where they were on campus, and just know they were available, that they could help us if we asked for help. I’m pretty sure CAS spoke to us probably a couple of times. I used it a lot my second semester.

She also noted, “I knew where everything was for the most part and I had a support system already there, so I was ready and excited about football season and all the fun stuff for the fall.”

One of the biggest challenges freshmen experience in college is the lack of understanding of the resources provided for their benefit and how to utilize them. Through the MBP program, students are better equipped with the background of what support systems are in place, and even further, they are equipped with the experience to use them. Jasmine added:

> I didn’t feel like I was walking into a new place anymore in the fall. Even when I walked into a new place that summer, I was doing it with 30 people who were doing the exactly the same thing, and I knew I’d walk together with them every step of the way. Not 10,000 people that I might be like, ‘I saw you once but I might never see you again’.

In addition to being prepared from a resource standpoint, these students were also introduced to ways of getting involved at the intuition. As Tinto (1993) explains, student
involvement is critical to student retention and success. As Anna, a senior engineering major, explains:

It [MBP] got me excited about getting involved somehow because I learned there was so much more about LSU than just being a student. There’s so much to find and get involved in on campus. I don’t think that I would have been. I was so comfortable and confident in myself after Summer Scholars so I wanted to get involved. If I would have just come in the Fall I probably would have been overwhelmed or not really ready to be involved in other things. I learned to manage my time that summer so I knew I could be in school, have friends, and see what else LSU had to offer to. It definitely helped a lot.

Anna felt she and other participants had a better understanding of which organizations and activities were available for them after the program. So when the fall semester started, they were excited to join and make a positive impact on their college career, rather than being overwhelmed and intimidated by them. Andrew reiterated:

[MPB] just paved the way for my whole entire college. If I wouldn’t have gone to Summer Scholars I don’t know if I would have done all the things I did because I wouldn’t have been as exposed. It got me out of my shell and made me want to be a leader on campus because I met so many awesome people.

Andrew feels ready not just to be a student on campus, but to be a leader on campus. His confidence has been built to understand the university and how it works. He is ready to make his mark in college, and this program gave him the opportunity to do so.

Another impactful aspect of being in the program was that the students were able to tackle their first semester during the summer, which is traditionally a calmer period on a college campus. Carsen said:

SSP kinda like allowed me to know everything before I even got here. I got to come here that summer with my little bicycle and my map and ride around with no one here so I wouldn’t be embarrassed. So when school started, I knew where everything was. I knew where the financial center was; I knew where the career center was; the bookstore…even though it changed, I knew where that was. So it didn’t feel that big. I felt like I knew about everything and, you know, I wanted to get involved because we heard from different offices, disability services…different deans of the colleges. So we had a…really personal experience getting to know everyone.
Carsen feels prepared and ready for college because he is more comfortable with the campus and its services. He spent the summer getting to know the university so in the fall, he was ready and aware of where to go.

In summarizing those experiences, the participants agreed the MBP prepared them to be successful throughout their college career. In fact, 85% of the respondents reported that they strongly agreed that the MBP prepared them for academic success. However upon interviewing the participants, the consensus was that academic success is often self-defined.

Briana defined academic success in this way:

I think just for me it’s making A’s and B’s in my classes and prioritizing time for school, especially because everything I do is so related to my major. Like freshman and sophomore years, it was like just get a good GPA. Now, like my blocks for student teaching and interning - I’m like this is what I will be doing in my own classroom. It’s not just about making a grade. Yes it’s about making a good GPA, but I do need to learn what I’m doing and get a good grasp on it. So I think for anyone it’s just meeting their own goals academically which can change from person to person.

Similarly, Jasmine’s definition was:

Academic success is being where you want to be whether that means getting a 3.6 to get into medical school or if you just needed a degree. You know…. whatever. It’s really just being where you want to be. That’s success in general. Like my brother is a sociology major but he wants to be a police officer. They don’t really care what your degree is in you just need a degree. To him getting a degree in 2-3 years is success for him. For me I want to go to nursing school, so success to me is, even though I could have gone straight to nursing school, I wanted to get a biology degree then apply to nursing school and get in.

Andrew incorporated networking and extra-curricular activities into his definition of academic success by stating:

…definitely GPA but definitely more. Like being able to incorporate what you’re learning into everyday life and apply what you learning. You may not get the best grades but if you can apply skills in the real world, the experiences matter more than the GPA. I think any employer will say so too. Like conferences and exposure like that. Speaks a lot more volumes that just GPA. GPA is something but not everything. Juggling many things and still have a good GPA is the best way. For example I want to do global health, so I took Spanish and studied abroad and volunteered internationally in the health field.
That’s me putting my coursework to work. Makes it a little more 3D than just having it on paper and learning from a book. I learned that from my mentor who I met in Summer Scholars. It all goes back to Summer Scholars.

Although different, each of their perspectives revolved around setting one’s own goals and being successful according to his or her definition. However, GPA was mentioned in every response. Donald quite simply, but profoundly, summed it up by stating, “Summer Scholars literally gave you the tools to succeed without a doubt.”

In summary, qualitative data was a very rich addition to this study. Being able to hear the students’ voices as related to how impactful the program was on their academic experience and success was invaluable. The four major themes that emerged were: 1) Belonging; (2) Networking/Social Capital; (3) Family/Othermothering; and (4) Preparedness. All of those themes directly correlate to and intertwine with both Tinto’s (1975, 1993) and Strayhorn’s (2012) frameworks.

**Mixed Analysis and Interpretation**

Two meta-inferences (Cameron, 2009), shown in Table 6, emerged from the analysis of both the quantitative and qualitative findings together.

**MBPs Foster a Sense of Belonging for African American Students at PWIs**

Strayhorn (2012) posits that “sense of belonging is a critical aspects in retaining all students and particularly students of color” (p. 9). Strayhorn (2012) also based his theory partially on Tinto’s (1993) work. He agrees that involvement with diverse peers and faculty influences “one’s sense of affiliation, membership, or sense of belonging on campus, which in turn could influence one’s subsequent goals and commitments and thus one’s decision to ‘stay in’ or leave college” (p. 32). However, he argues that Tinto’s (1993) model “had limited applicability to decisions of students of color” (p. 32) as he disagrees that students have to
<table>
<thead>
<tr>
<th>Meta-Inference</th>
<th>Quantitative</th>
<th>Qualitative (Quotes/Themes)</th>
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<tbody>
<tr>
<td>MBPs Foster Sense of Belonging</td>
<td>75.8% of MBP participants were retained at the institution</td>
<td>Belonging: “I think as a minority or as a Black minority, it’s different from being a regular student because that feeling of belonging at a university people can be missing. I really felt like I belonged with the other Summer Scholars” – Brittany</td>
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<td>48.2% of non MBP participants were retained at the institution</td>
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<td>Family: “Some of us went to church together and ate after church...like you did when you were growing up with your family” - DQ</td>
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<tr>
<td>MBPs Prepare Students for Academic Success</td>
<td>GPA M=2.80 on 4.0 scale for MBP participants</td>
<td>Preparedness: “I was so comfortable and confident in myself after Summer Scholars so I wanted to get involved” – Tia</td>
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<td></td>
<td>GPA M= 1.93 on 4.0 scale for Non MBP Participants</td>
<td>Social Capital/Networking: &quot;I actually got a job through interaction with people that spoke at Lecture Series” – Jasmine</td>
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assimilate and leave behind their past communities in order to become fully integrated into the social and academic life of college. Therefore he argues that students should belong and “fit” (p. 33) into their college communities but they do not have to totally assimilate nor integrate.
Because MBP participants are retained at the institution at higher rates than non-participants and the fact that themes of belonging and family emerged from the qualitative data, it appears that MBP participants experience a sense of belonging at their institution that in turn enhances their retention.

**MBPs Prepare African American Students for Academic Success at PWIs**

Significant results were found in participants’ academic success, as evidenced by the grade point averages of MBP participants over non MBP participants. Additionally, the recurrent themes of “preparedness” and “social capital and networking” were evident in the interviews. Both qualitative and quantitative data suggest that the MBP prepared this cohort for success.

Tinto (1975) suggests that student integration must be both academic and social. Academic integration is achieved when students are engaged with the academic facets of college such as formal academic performance and informal relationships with faculty and staff. Social integration happens when students incur formal interactions with peers by participating in informal interactions with peer groups or in social situations beyond their coursework. Interviewees stated that the MBP provided them with both academic and social success strategies that appeared to help them achieve the goal of academic success as evidenced by their significantly higher GPAs.

**Conclusion**

This chapter provided the details related to the findings for each of the three research questions in this study. Significant findings were that MBP participants had significantly higher academic success, as defined by grade point average, than non-participants. MBP participants also were retained at the university at a higher rate than those who did not participate in the
program. In addition, four themes emerged from analysis of the interview transcripts and data obtained from the questionnaire administered to the participants: (1) Belonging; (2) Networking/Social Capital; (3) Family/Othermothering; and (4) Preparedness. After analyzing quantitative and qualitative data together, the researcher formed two meta inferences regarding the data: (1) MBPs Foster Sense of Belonging for African American Students at PWIs and (2) MBPs Prepare African American Students for Success at PWIs.

Therefore if African American students, who historically have a significantly lower graduation rate than White students, are able to obtain a sense of belonging and succeed academically and socially at PWIs, stakeholders with goals of admission and retention of this group should find interest in minority bridge programs’ influence on those students. Chapter 5 outlines further implications for this research and recommendations for further research on this topic.
CHAPTER V: DISCUSSION & CONCLUSIONS

Introduction

Grounded in Tinto’s (1975, 1993) Model of Student Departure and Strayhorn’s (2012) Model of College Students’ Sense of Belonging, this study examined the effectiveness of a minority bridge program on the academic success and retention of African American ungraduated students at predominantly White institutions. This study employed both quantitative and qualitative methods to fully explore the impact of the minority bridge program on the students. This chapter discusses each research finding in context of relevant research. Theoretical and practical implications as well as recommendations for future studies and limitations of the current study are included.

Summary of Findings

After reviewing quantitative and qualitative data, meta-inferences were formed. Significant quantitative findings were that MBP participants had significantly higher academic success, as defined by grade point average, than non-participants. MBP participants were also retained at the university at a higher rate than those who did not participate in the program. In addition, four themes emerged from analysis of the interview transcripts and data obtained from the questionnaire administered to the participants: (1) Belonging; (2) Networking/Social Capital; (3) Family/Othermothering; and (4) Preparedness. After analyzing quantitative and qualitative data together, the researcher formed two meta inferences regarding the data: (1) MBPs Foster Sense of Belonging for African American Students at PWIs and (2) MBPs Prepare African American Students for Success at PWIs.
Theoretical Implications

The findings from this study provide support to strengthen Strayhorn’s (2012) relatively new Sense of Belonging Theory. Findings also provide empirical evidence to add to the body of studies of summer bridge programs. This addition of an empirical study will help to fill the gaps in the literature stated previously in studies by Strayhorn (2011) and Cabrera, Miner, and Milem (2013). By employing a mixed methods approach, the quantitative findings were supported by rich, qualitative data that served to explain why the data showed a significant increase in the academic success of MBP participants over those who did not participate in the program.

Implications for Practice

Results from this study will inform practice by creating a model for using institutional data to assess the effectiveness of minority summer bridge programs at predominantly White institutions. Results will also provide insight to university administrators and other policy makers who have goals related to diversity and retention of African American students regarding what is important to the academic success of that sub population. Additionally, student affairs professionals and others charged with creating programs with goals relating to diversity and policy competency areas and outcomes should also use these and similar findings to intentionally design programs that will provide successful outcomes for African American students at predominately White institutions.

Stakeholders, such as funding decision makers, legislators, and university administrators, should know that although the quantitative data reported in this study regarding academic success and retention speak volumes about the effectiveness of this program, the experiences of the students, obtained from their own words through interview data, is invaluable. They should understand that even though students may earn very good grades, other factors play a role in a
student’s decision about whether or not he or she remains in school or drops out. The sense of belonging that students obtained from this program seemed to be a larger deciding factor in them remaining in school. The family atmosphere and comradery that they obtained during that summer remained with them throughout their college careers even though no formal meetings of the cohort were held after that summer.

One noteworthy takeaway from the findings relates to the importance of othermothering (Collins, 2000; Guiffrida, 2005) in the African American culture as it relates to college students. Guiffrida (2005) described “othermothers” as African American female role models in the community who serve as a mother away from home. The participants in this study appreciated having some room to grow on their own, as well as having an “othermother” who helped play the role of a caretaker as they transitioned to total freedom as a college student. However, one participant reported that a White woman performed the othermother role for him. This alludes to the fact that having any person serve that role for African American students may be more important than it being solely an African American woman. Besides looking at it from a race perspective, practitioners may also begin to look at this role of “othermother” as a less gendered role. African American and other races of men can also take the initiative to serve as supporters of these students.

Recommendations for Further Research

Future researchers should consider attempting to replicate these findings for MBPs with similar characteristics at similar institutions. Replication of these findings will provide transferability and generalizability (Creswell, 2009). Also specific aspects of the program such as Lecture Series, living on campus, small class sizes, and having peer mentors could also be examined individually to help researchers identify which facets of the program are most helpful
in increasing the participants’ academic success. Another interesting avenue to this line of research would require researchers to test for differences in the importance of sense of belonging in different sub populations such as other races, different genders, various socio-economic statuses, students who are from out-of-state, students from rural communities, student-athletes, and possibly even graduate students. This work is important as Strayhorn’s (2012) work is rooted in Maslow’s (1954) work that states that belonging is a basic human necessity so this theory may be applicable to other subpopulations. Researchers may also be interested in looking at comparative studies between African American students at predominantly White institutions and historically Black colleges and universities to determine the similarities and differences in sense of belonging factors between the two classifications of institutions.

Finally, a study of this type could have been strengthened had a survey instrument, using scales related to a priori codes identified in the literature, been administrated to both participants and non-participants in order to look for statistically significant differences between the two groups. By utilizing a quantitative instrument, other, longitudinal-type studies, may be conducted in an attempt to gauge importance of sense of belonging in the student’s academic success throughout his or her college career. Instruments of this type would allow researchers to administer a pre-test before the program and post-tests at various pivotal points such as after the program, end of the first year, end of second year, and at graduation to determine both the immediate and lasting effects, if any, of the MBP on their academic success and sense of belonging.

**Limitations**

A limitation of this study is the data was derived from one MBP cohort at a single institution. However, positive results from this program may be used by other programs or even
other universities. Another criticism of this study could be the participants in the program were selected to participate, hence selection bias could occur. The rebuttal to that argument is that all admitted minority students are eligible for the program, therefore as a matched control group was selected, comparisons may be made among both participants and non-participants. Lastly, the researcher is a former MBP participant so bracketing her experiences as an MBP participant (Creswell, 2013) was important.

**Researcher’s Personal Reflections and Concluding Thoughts**

“You won’t make it at that White school!” That is a quote that I heard time and again when I told people I planned to attend a predominantly White institution. However after researching, I knew that the institution I chose had a good reputation of job placement in my field of study, so I decided to take my chances. At eighteen years old I was not thrilled at the thought of attending summer school two weeks after graduation, but in hindsight that was the best decision I ever made.

I made life-long friends that summer. My roommate that summer became my roommate throughout college and more importantly my best friend. Our advisor served as a mother to me throughout my college years. She counseled me on everything from academics to money to dating. I attribute all of my success in college and beyond to the support I received from that program and the relationships it cultivated.

Statistics show that my story is not the norm. As statistics show, many of my peers who did not participate in the program did not succeed in college. However, I, and most of the members of my summer cohort did. I know this because many of us are still friends and keep in touch. From my group came doctors, lawyers, college professors, engineers, educators and successful business people.
Twenty years later, I conducted this empirical study on a similar group and statistically significant results were found to demonstrate the academic success of this program’s participants over those who didn’t participate. Is that a coincidence? I think not! While interviewing the participants in this study, I saw so many parallels to my own experiences going through the program. From the anxiousness and overwhelmed feelings I had on the first day to the feelings of being a family by the end of the program, the similarity of experiences was astonishing.

I think that every little black and brown child contemplating attending predominantly White institutions should be given the opportunity to experience a group or program like this. University administrators and legislators should realize what a return they will receive on their investment in programs of this nature.

I know there are many other young academically capable African American students who will never consider attending predominantly White institutions because statistics show they will not succeed. Similar to what I was told, there are many potential students whose parents and other advisors will tell them PWIs are not the place for them. University administrators, and society as a whole, cannot afford to ignore all of this untapped potential. By implementing minority bridge programs, or even incorporating some of the aspects of such programs into the orientation curriculum for all minority students, higher education today can be responsible for changing those statistics and potentially causing a paradigm shift in that thought pattern. As the academic success and retention of African Americans at PWI’s increase, potential African American students will realize they can succeed at PWI’s. I did.
REFERENCES


APPENDIX A:   RECRUITMENT EMAIL

Hi [Student’s Name]!

    My name is Brandi Roberts, and I am a graduate student at Louisiana State University. I am conducting a research study on the academic success and retention of African American students at predominantly White universities, such as LSU. My study specifically seeks to learn about your experiences as a participant in the Summer Scholars Program and how the program impacted your academic experience.

    You were selected because Ms. Yancy, your program coordinator, or a fellow Summer Scholar identified you as a potential participant for the study. He/She explained you might be interested and able to participate in the study. Participation includes a 30-45 minute individual interview where I will ask questions about your college experiences. Please know all information shared will remain anonymous and your identifying information will never be shared.

    If you can participate, an email will be sent to your lsu.edu email address containing consent forms, which will indicate your willingness to participate in the study, and a brief informational survey. I will schedule an interview, at your convenience, the following week.

    This research interests me because I was a Summer Scholar in 1993, am a graduate of LSU, and am also currently on staff at LSU. Your description of your experiences as an African American student at LSU and a Summer Scholar may help administrators and higher education researchers better understand how Summer Scholars impacted your academic success.

    If you are interested in participating, please contact me at (225) 931-2769 or via e-mail at brobert1@lsu.edu. Please forward to any other Summer Scholars that may be interested. Thank you for your time and I look forward to meeting you!
APPENDIX B: INTERVIEW PROTOCOL

Knowledge Questions

1. What resources did you become aware of in the MBP?

Experience Questions

2. Describe how you felt the first day you arrived on campus for the program.

3. Tell me how that experience was different from how you felt the last day of the program.

4. How do you feel now?

5. Describe your interaction/relationship with your MBP advisor during the program.
   a. Describe your current relationship with your program advisor, if any.

6. Describe your experiences living in a residence hall with the group.

7. What type of formal activities did the group do together?

8. How did you interact with group members outside of formal activities?

9. Which of your experiences with faculty were most memorable?

10. How did you use your study hall time?

11. Tell me about your participation in extra-curricular activities, if any.
    a. Did the MBP affect your decision to join any activities?

12. Describe your current relationship with peers from your cohort, if any.

13. What experiences have you had, if any, that drew attention to the fact that you are a “Black student” at LSU rather than just a “student” at LSU?

Perceptions/Beliefs Questions

14. What aspects of the program, if any, do you feel helped you make a successful transition to college?

15. How would you define academic success?

16. Describe your group peers.
APPENDIX C: SURVEY

1. Name (Fill in the blank)

2. Desired Pseudonym (Fill in the blank)

3. I felt prepared for college when I graduated from high school. (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

4. I felt prepared for college when I completed the Summer Scholars program. (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

5. The Summer Scholars Program helped me transition to LSU. (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

6. The Summer Scholars Program aided in my academic success at LSU. (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

7. The Summer Scholars Program aided in my social life at LSU. (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

8. I would recommend the Summer Scholars program to other prospective students of color. (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

9. I have been successful at LSU (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

10. The Summer Scholars Program helped me most with ____________. (Fill in the blank)

11. The Summer Scholars Program could have been improved by ____________. (Fill in the blank)

12. How would you describe your overall experiences at LSU (Very Satisfied, Generally Satisfied, Slightly Dissatisfied, Dissatisfied, Very Dissatisfied)

13. When do you expect to graduate? (Semester/Year)
14. Undergraduate Major (Fill in the blank)

15. Gender (Female, Male, or Trans)

16. Age (Fill in the blank)

17. Race/Ethnicity (African American/Black, Asian American/Pacific Islander, Caucasian/White, Latino/Hispanic, or Native American/American Indian)

18. High School (Name, City, State)

19. High School GPA (Fill in the blank)

20. Hometown (City, State)

21. What is your parents/guardians marital status (Married, Divorced, Never Married)?

22. Active Duty or Veteran Status (Yes or No)

23. Do you receive federal or state financial aid? (Yes or No)

24. Do you currently live on campus?

25. How many semesters did you live on campus?

26. Are you currently employed? (Yes or No)

27. If you are employed, do you work on or off campus (On or off)

28. If employed, how many hours a week do you work? (Fill in the blank)

29. Are you currently in any co-curricular activities or student organizations? (Fill in the blank with specific activities or organizations)

30. Parental Education Level. (Some High School, High School Diploma/GED, Some College, Associate’s Degree, Undergraduate Degree, Graduate Degree, Professional Degree)

31. Estimated Household Income (less than $10,000, $10,001-19,999, $20,000-29,999, $30,000-39,999, $40,000-49,000, $50,000-59,999, $60,000-69,999, $70,000-79,999, $80,000-89,999, $90,000-99,999, $100,000 or more)
APPENDIX D: INSTITUTIONAL REVIEW BOARD APPROVAL

ACTION ON EXEMPTION APPROVAL REQUEST

TO: Brandi Roberts
    Education Leadership Research & Counseling
FROM: Dennis Landin
    Chair, Institutional Review Board
DATE: March 30, 2015
RE: IRB# E9264
TITLE: Examining the Effectiveness of a Minority Bridge Program on the Academic Success of African American Students at Predominately White Institutions

Review Date: 3/20/2015
Approved X Disapproved
Approval Date: 3/27/2015 Approval Expiration Date: 3/26/2018
Exemption Category/Paragraph: 2a
Signed Consent Waived?: No
Re-review frequency: (three years unless otherwise stated)
LSU Proposal Number (if applicable): 
Protocol Matches Scope of Work in Grant proposal: (if applicable) 

By: Dennis Landin, Chairman

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –
Continuing approval is CONDITIONAL on:
1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU’s Assurance of Compliance with DHHS regulations for the protection of human subjects*.
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
8. SPECIAL NOTE: *All investigators and support staff have access to copies of the Belmont Report, LSU’s Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at http://www.lsu.edu/irb
VITA

Brandi Bush Roberts, a native of Palmetto, Louisiana, received her bachelor’s degree at Louisiana State University and Agricultural and Mechanical College in 1996. She immediately reenrolled and completed her master’s degree in 1998. After graduation, she worked as a Certified Public Accountant at an international CPA firm for three years. During that time, an opportunity for a professional-in-residence instructor position opened and she began teaching accounting at a regional institution in Louisiana. As her interest in the education industry and academia grew, she decided to take a position in contract management at Louisiana State University. In 2010, she decided to enter graduate school in the College of Human Sciences and Education to pursue a doctorate degree in Higher Education Administration. She expects to receive her doctorate degree in December 2015.