First-Generation College Students of Color's Success at a Predominately White Institution: Exploring the Influence of Student Engagement in a High-Impact Program

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First-Generation College Students of Color’s Success at a Predominately White Institution: Exploring the Influence of Student Engagement in a High-Impact Program

by

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A Dissertation submitted to the Department of Leadership, School Counseling & Sport Management in partial fulfillment of the requirements for the degree of Doctor of Education

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DEDICATION

This dissertation is dedicated to first-generation college students of color, especially my sister, Amanda D. Mason. Your intellect, academic successes, frustrations, and challenges lead me to the search for qualities and characteristics that contribute to keep talents like yours in college and bound to graduation, seeking knowledge beyond good grades and student behaviors contributing to success. May you continue to be resilient.
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Abstract

The increase of first-generation college students of color (FGCSOC) in the United States who attend predominately White institutions (PWI) warrants explorations of how to effectively serve this demographic. Support programs, like Trio, have been implemented to positively engage students at critical stages of their college experiences. Are such programs contributing to the intended academic success of these students? Rooted in Kuh’s and Kahu’s conceptual frameworks of student engagement that address student behavior, institutional support, and student’s lived experiences, this study’s author investigated the relationship between student engagement and high-impact practices (HIPs) at a postsecondary institution. A non-experimental, cross-sectional quantitative design for this study was used to explore the association between high-impact practices and student grade point average (GPA), as well as examine the relationship between high-impact practices, GPA, and student background characteristics of Trio program participants. Analysis of the responses indicated a statistically significant negative correlation between GPA and the increase of academic support program attendance as well as students who worked with other Trio students outside of the program to prepare assignments. Among the 22 HIPs that were examined, five practices emerged as the most significant to positive student engagement in college. Based on this study findings, insight is offered about ways to enhance FGCSOC’s healthy self-esteem and well-being at PWIs thereby positively impacting their overall academic success in college.
Chapter 1: Introduction

Enrollment at public postsecondary institutions in the United States has increased steadily since 1970 with a recent estimate of 12.7 million students pursuing higher education full-time (Aud, Hussar, Johnson, Kena, Roth, Manning, Wang, & Zhang, 2012; Kena, Musu-Gillette, Robinson, Wang, Rathbun, Zhang, Wilkinson-Flicker, Barmer, & Velez, 2015). Greater diversity has been seen among students from various racial backgrounds, gender identities, ages, socioeconomic levels, family structures, and non-traditional statuses (Carneval & Strohl, 2013; Engle & Tinto, 2008). In contrast to increased diversity on college campuses, historical patterns of success and degree attainment persist across racial categories. White student degree attainment went from 25 to 39%, Black 12 to 20% and Hispanic/Latino from 8 to 13% for 25 to 29-year-olds between 1980 and 2011 (Aud, et al., 2012). Although students overall have increased access to institutions of higher education, underrepresented students continue to struggle to attain a postsecondary degree, particularly at predominately White institutions (PWI). Among college students, 15% of first-generation college students (FGCS) completed college within six years, compared to 39% of non-FGCS (National Center for Educational Statistics [NCES], 2016). The disparities between who accesses colleges and the successful completion of college warrants a need to understand the issues related to FGCS. First-generation college students of color are estimated to comprise approximately 46% of college students; however, this population may not have adequate support to complete college as successfully as non-FGCS students. The need to understand the consequences of such disparities is warranted for first-generation college students of color, which can be understood to be a student that neither parent has more than a secondary education in the U.S. and identifies as Asian, Black or Hispanic.
Recognizing the disparity with minority students’ graduation rates, especially FGCS of color, institutions have implemented programs on postsecondary campuses to support the college transition needs of such students. Academic transition programs include support programs such as tutoring and academic enrichment opportunities. First-year experience programs and courses assist students in building knowledge, some of which can come in the form of unwritten expectations of the college environment. Co-curricular tools like time management, study skills, and institutional environment awareness also help students to navigate the collegiate milieu. Examples of college transition support include institutional orientation programs over several days before the launch of a student’s initial entry into college, where students and families may complete course registration and connect with other students, campus faculty and staff. Week of Welcome events are common practice as students can begin to create connections to campus life and the academic, social, and environmental culture of the institution. During such orientation programs, clubs and organizations often showcase opportunities for engaging in the campus environment, allowing students to find their unique niche with others. Students can also connect to minority affiliated groups like InterFaith, lesbian, gay, bisexual, and transgender centers, and Multicultural Student Centers at PWIs. Such programs and services connect students to peers who are trained and acculturated to the process of relating to FGCS in order to create more welcoming campus climates.

Institutions of higher education continue to invest in strategies that help to increase the retention, persistence, and academic success of marginalized student populations. One approach focuses on student engagement in both curricular and co-curricular activities. For the purposes of this study, student engagement is conceptualized as the degree of participation in institutional
experiences that allow students to thrive. Student engagement is quantifiably defined as “the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to motivate students to participate in these activities” (Kuh, 2009, p. 683).

Ideally, positive student engagement, where students are immersed holistically in the campus environments, will lead to timely graduation and overall successful college experience. Programs designed to support first-generation students of color to matriculate into their selected PWI four-year institution smoothly are viewed as a key factor to assist students to adapt to the learning and institutional environment. Providing supporting evidence of such programs’ outcomes can enhance students’ college experiences and inform institutions seeking strategic approaches to impact student attrition across various backgrounds, especially for students who are more vulnerable to drop or fail out of college.

Despite the progress of college attainment for all students across demographic boundaries, fewer minority students persist at PWIs compared to their counterpart. Although, resources are often in place to encourage students to participate in the college experience, the question remains if such initiatives related to student engagement and high-impact educational practices have an effect on specific at-risk students, like first-generation college students of color. Is there evidence that programs and events designed to positively influence student engagement during their first year at an institution lead to student success? A goal of this study is to explore to what degree does the engagement in high-impact practices in support programs dedicated to underrepresented first-year students contribute to the GPAs of participating students of color. High-impact practices often require significant time and effort, facilitation of learning
beyond the classroom, encourages collaboration with others, allows students and faculty to work together, and frequent performance feedback of student progress (Kuh, 2008). We can build upon what is working through awareness, knowledge, and specific strategies to integrate student engagement mindset into program offerings to marginalized students at PWIs.

**Barriers for First-Generation College Students of Color**

A first-generation college student (FGCS) is a student where neither parent has more than a high school education in the United States for this study (Chen, 2005; Horn & Nuñez, 2000; Ishitani, 2006; Redford, Hoyer, & Ralph, 2017; Ward, Siegel, & Davenport, 2012). Factors associated with being the first person in one’s immediate family to earn a college degree may impact the college experiences and student outcomes of FGCS. First-generation college students are less likely to complete postsecondary degrees, are older, female, are disproportionately African American/Black and Latino/Hispanic, married, attend college part-time, participate in two-year institutions, and tend to come from low-income backgrounds compared to their traditional college counterparts (Engle & Tinto, 2008).

The pre-college experiences of FGCS may be distinct from their peers whose parents have the benefit of prior knowledge about academic expectations and preparatory processes for succeeding in college. First-generation college students are more likely than their peers to have pre-college experiences that can adversely impact how they progress through school. Such students may enter college with lower mean high school GPAs and aptitude test scores, therefore requiring remedial courses at higher rates than their traditional peers (Davis, 2010; Nuñez & Cuccaso-Alamin, 1998; Spiegler & Bednarek, 2013). First-generation college students of color may believe they are not prepared for the academic rigor in college (Davis, 2010). Adding
remedial courses to the student’s program of study further delays their time in completing college. As a result, the likelihood of attending, four-year, selective postsecondary institutions are minimal.

Once in college, first-generation college students of color may lag behind their non-FGCS peers in making critical college decisions at various necessary benchmarks. For example, fewer FGCS selected a major upon entering college: only 13% compared to 33% of peers who had parents with a higher education degree (Chen, 2005). The gap of earned credit hours began in the first year and progressed as students continued in college. First-generation college students earned fewer credit hours their first year of college than their peers (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996; Trevin & DeFreitas, 2014). Often, first-generation college students of color work full-time, live off campus, and have family obligations, which contribute to earning fewer college credits per term. Delays in attaining a degree result in not obtaining enough credits per term and deciding upon a major. Consequently, delaying graduation requires more financial resources for tuition, fees, and student living expenses culminating in more debt for the college student.

Campus climate is also a concern for first-generation college students of color. Students of color, more often than their counterparts, self-report hostile and racist environments that may result in a sense that campuses are not an accepting space for minorities (Rankin & Reason, 2005). Being one of the few or the only one from one’s cultural group on campus communities can lead to students feeling isolated and alone (Green & Glasson, 2009). These factors, combined with issues unique to be a student of color, may lead to lower college graduation rates for first-generation college students of color when compared to their peers.
Conceptual Framework

The conceptual framework used for this study is adapted from Kuh’s (2009) conceptualizations of high-impact educational practices and Kahu’s (2013) understanding of student engagement with particular emphasis on sociocultural influences on participation in college. Student engagement and high-impact practices were selected to focus on the level of the student’s effort and time spent on a task (Astin, 1984; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). A primary tenet of Kuh’s student engagement framework argues that time on task and the quality of effort devoted to the collegiate experience are vital components of student engagement (Kuh, 2009). Kuh offers several principles of engagement that have behavioral, emotional, and cognitive implications for higher education (Fredricks, Blumenfeld, & Paris, 2004; Lester, 2013). Behavioral engagement relates to the student’s involvement in academic and social activities. Emotional engagement is the student’s institutional values, attitudes, and interests. Finally, cognitive engagement is a function of psychological motivation and self-regulated learning. Kuh (2009) argues that positive engagement effects are similar for all student demographics regardless of race, generational status, and educational preparation although the type of activity may benefit some groups more than others.

Kahu (2013) expands upon Kuh’s theory of student engagement in higher education. Kahu argues that student engagement in higher education should be framed not only from student behavior and institutional practices but should be more holistic. The framework incorporates student engagement concepts of affect, cognition, and behavior. The influences of student engagement include socio-cultural, structural, and psychosocial factors. The Kahu
framework encourages interventions that are specific for unique student populations, placing students’ lived reality at the center of the model.

**Figure 1.** Conceptual framework of student-centered engagement with influences and consequences (Kahu, 2013).

High-impact activities are attributed to increases in student grades and retention due to the likelihood of student engagement in these activities. The ten educational practices defined as high-impact are

- first-year seminars and experiences that brings small student groups together with faculty or staff on a regular basis,
- common intellectual experiences are programs that combine curricular and co-curricular student courses,
- learning communities that integrate learning across two or more linked courses and work closely with faculty that explore common readings or topics,
• writing-intensive courses including senior year projects that work toward writing effectiveness in repeated practice,
• collaborative assignments and projects that help students work together and learning from the backgrounds and experiences of others,
• undergraduate research experiences for students across any discipline,
• diversity/global learning that explore cultures and different world views than their own,
• service learning and community-based learning provide experiential, direct learning opportunities for students,
• internships provide students who direct experience in a work environment, and
• capstone courses and projects or senior year projects that provide a cumulative experience that integrates the student learning (Kuh, 2008).

These high-impact activities demand students devote significant time and effort, actively interact with faculty and peers, while increasing the likelihood that the student will interact with diverse people, receive frequent feedback, interact with learning in different settings, and participate in life-changing experiences (Kuh, 2008). Increased engagement with these activities contributes to more time and effort on educational tasks and, hopefully leads to higher GPAs and increased student success.

In this study, and in alignment with the conceptual framework, student GPA and student engagement behaviors were believed to improve among students who participate in high-impact support programs that were designed for first-generation students. Student engagement indicators and GPA at the end of students’ first year were considered for this study.
**Statement of the Problem**

Although summer bridge and first-year experience programs are intended to improve the experiences of underrepresented students, there is little research indicating the impact of such programs on academic indicators such as grade point average (GPA) and student engagement (Cabrera, Miner, & Milen, 2013; Strayhorn, 2011). Consequently, there exists a need to examine the impact of student engagement and specialized programming on the indicators of the success of first-generation college students of color (FGCSOC) as they matriculate, especially at predominately White institutions (PWI).

**Significance of the Research**

Programs such as Summer Bridge and Trio prepare incoming students with the academic skills needed for college, providing post-secondary services to students who are from disadvantaged backgrounds (College Parent Central, 2018; U.S. Department of Education, 2018). These programs help to ease incoming students’ transition to college so that they are better academically and socially prepared for the college experience. The study findings may enhance the way in which programs support FGCSOC and how such students engage with the institution. This study may provide insight to program developers who want to increase the success of first-generation college students of color. This research could add an understanding of how programs that focus on underrepresented populations contribute to the success of such students through the use of high-impact practices.

As a result of this study, institutions may better recognize deficiencies in programs that impact FGCSOC retention and academic success in college. Postsecondary educators could develop preventive and proactive program approaches to intentionally enhance their services to
meet the unique needs of FGCSOC before an academic or social concern arises. Anticipating and serving the needs of these students may enable educators to provide students a clear path toward engagement success at a PWI. Discovering how high-impact educational programs (HIPs) contribute to the success of FGCSOC may help to further develop campus cultures that support students as they overcome invisible yet contributing stumbling blocks to their academic progress. Postsecondary educators and administrators providing HIPs and validation for the unique, diverse needs of the student experience is a significant component to keep first-generation students of color engaged and successful in college.

**Purpose of the Study**

The purpose of this study was to examine student engagement in a support program and the relationship of such engagement to the academic outcomes of GPA at the end of the first year of college. Using Kahu’s student engagement framework and Kuh’s high-impact educational practices, the study investigated the ways students engage in a support program and their academic outcome, GPA, related to the program. The results of this study may have implications for postsecondary professionals’ practice, procedures, and institutional policies working with first-generation college students of color towards graduation.

**Rationale for the Methodology**

Using a nonexperimental quantitative design, regression analysis was used to explore the relationships among factors of academic indicators for students participating in a first-generation college student support program at a predominately White institution. The study involved the participation of students in the support program between 2012 and 2018. The researcher investigated what, if any, was the impact of the program on students’ GPA and first year success,
particularly for first-generation students of color. A survey tool, Survey of Program Participants Experiences (SPPE), was used to collect data about student engagement in high-impact practices and first year grades while involved in the program.

The maximum number of eligible student participants for this study was n=160. The SPPE was adapted from four previously developed survey tools to measure student engagement (Bonet & Walters, 2016; Cabrera, Miner, & Milem, 2013; Pike, Kuh, & McCormick, 2011; Rocconi, 2011). Data collected from the SPPE was analyzed using a hierarchical regression model.

**Research Question**

The primary question addressed in this study was what impact student engagement in high-impact practices (HIPs) had on student grades among first generation college students of color who attend predominantly White institutions. Values were calculated for the degree at which students engaged in HIPs for their experiences while participating in a Trio program (a federally funded support program for first generation college students) between 2012 and 2018. The HIPs values yielded were utilized in the examination of the following research questions (RQ):

**RQ1:** What is the association between high-impact practices and student grade point averages at the end of the first year of participation in a college support program?

**RQ2:** What is the relationship among high-impact practices, grade point averages, and background characteristics of the student at the end of the first year of participation in a college support program?

**Definition of Terms**
The following were terms and constructs used in this study.

*First-generation college student* (FGCS) is defined as a student for whom neither parent has more than a high school education in the United States (Chen, 2005; Horn & Nuñez, 2000; Ishitani, 2006; Ward, Siegel, & Davenport, 2012).

*First-generation college student of color* (FGCSOC) refers to a student for whom neither parent has more than a high school education in the United States and identifies racially as other than White. (Chen, 2005; Horn & Nuñez, 2000; Ishitani, 2006; Ward, Siegel, & Davenport, 2012).

*High-impact educational practices* (HIPs) describes activities suggested to increase student retention and engagement in college that are beneficial for college students from various backgrounds (Kuh, 2008). HIPs include the following time and effort intensive educational activities: first-year seminars and experiences, common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, service learning, community based-learning, internships, and capstone courses and projects.

*Higher Education, or Postsecondary,* represents any schooling beyond secondary (high school) level education leading toward a formal degree or credentials.

*Postsecondary Educator,* also known as *Postsecondary Administrator, Student Affairs Professional, Academic Affairs Professional,* or *Instructor,* is a full-time employee at a postsecondary institution serving college students in a co-curricular and support capacity, generally beyond the formal classroom setting (U.S. Department of Labor, 2017).
*Predominately White Institution* (PWI) describes institutions of higher education where Whites represent at least 50% of the student enrollment (Brown II & Dancy II, 2010).

*Retention* occurs when a student enrolls each academic semester to the second year of college or graduation.

*Student engagement* is quantifiably defined as effort and time college students commit to institutional activities (Kuh, 2009) and includes the influences on students’ academic and social sense of belonging, cognition, and behavioral outcomes (Kahu, 2013).

*Students of color* identify racially as other than White.

*Student success* is defined as achieving satisfactory academic progress toward college completion (Cuseo, 2007).

*Summer Bridge programs* are designed to support the transition to college, usually for college students enrolling for the first time. These programs often provide new students critical support for developing academic skills and social resources (U.S. Department of Education, 2016).

*Trio programs* are federally funded programs designed to identify and provide services to individuals from disadvantaged backgrounds. The targeted institution focuses on first-generation college students and low-income college students (U.S. Department of Education, 2018).

An *Underrepresented student* is defined as a college student who does not represent at least 50% of the student population at an institution.

**Summary**

Chapter 1 summarized the factors associated with student engagement and a program related to the academic success of first-generation college students of color at college. The
Chapter provided an introduction, purpose statement, significance of the study, methodology overview, research questions, and the definition of terms for the proposed study. Research explored participant student engagement in a program that uses high-impact practices to contribute to FGCSOC academic success at an institution.

**Overview of the Remainder of the Study**

The remaining four chapters of this dissertation includes a detailed review of the literature, the study methodology, the review of the study’s results, and the discussion of the investigation’s findings. Chapter two provides a literature overview of the body of research related to first-generation college students of color, Kuh’s and Kahu’s conceptual framework of student engagement, and high-impact educational practices at postsecondary institutions. Chapter 3 discusses the research methodology that was used to explore the research questions, including a discussion of the rationale for selecting the methodology. Moreover, chapter 3 contains the description, sample, data collecting information, and hypothesis testing. Chapter 4 delineates the study findings. Finally, chapter 5 provides a summary and analysis of the study findings, limitations, conclusions, and implications for practice and future research.
Chapter 2: Review of Related Literature

This study explored student engagement in a support program that serves first-generation college students of color (FGCSOC). The purpose of this study was to examine student engagement in support programs, particularly the relationship between the degree of student engagement and the academic outcomes of GPA for FGCSOC. Thus, the literature review examines factors related to first-generation college students of color, student engagement conceptual framework, and student support programs that focus on the academic and social engagement of underrepresented students, specifically at predominately White campuses.

Impact of Being the First and A Student of Color

First-generation college students represent about 30% of students enrolled in college (NCES, 2016; Strayhorn, 2006). In general, first-generation college students tend to be older, female, have an ethnic minority status or immigrant background, are employed, have family responsibilities, live off-campus, have a disability, are financially independent of their parents, and are non-native English speakers (Choy, 2001; Engle & Tinto, 2008; Spiegler & Bednarek, 2013; Stebleton, Soria, Huesm, & Torres, 2014). First-generation college students tend to be from racial and ethnic minority backgrounds as well as from low-income neighborhoods (Coffman, 2011; Engle & Tinto, 2008; Redford, Hoyer, & Ralph, 2017; Spiegler & Bednarek, 2013). More often than their counterparts, FGCS tend to be less prepared academically for college (Engle & Tinto, 2008). Many first-generation college students of color delay enrolling in college after high school (Engle & Tinto, 2008; Redford et al., 2017). Commitments to support the family and the need to acquire a well-paying job as top priorities are factors that contribute to the rationale of a student deciding to delay college attendance.
Given the factors and consequences related to being a FGCS, many FGCS are thought to be at a disadvantage for attrition in college if left without effective supports (Ishitani, 2016). Among FGCS in 2012, about 51% are minority status (other than White) and 77% reported their financial household income of less than $50,000 compared to their continuing-college peers (Redford, Hoyer, & Ralph, 2017). According to one study, of the fall 2005 first-year students, 86.8% of first-generation college students also identified as a student of color, primarily Hispanic/Latino and African-American/Black (Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007). Fall 2005 first-generation students who were likely to be Hispanic was 38.2%, African American (non-Hispanic) was 22.6% compared to 13.2% of their White (non-Hispanic) peers. Of first-generation college students who began college in 2003-2004, 33% left college and did not return and 48% persisted compared to students whose parents earned a bachelor’s degree, where 14% left without return and 67% persisted (Cataldi, Bennett, Chen, & Simone, 2018). Of postsecondary students who attained a degree or were still enrolled six years after entering college, 56% were first-generation college students versus 74% whose parents earned a bachelor’s degree (Cataldi, Bennett, Chen, & Simone, 2018).

Students whose parents did not go to college were more likely to be 24 years or older and have commitments beyond college in comparison to non-first-generation college students (Choy, 2001; Engle & Tinto, 2008; Redford et al., 2017). Among SAT or AP test takers 2008-2012, 86.3% for first-generation students needed to apply for financial aid compared to 70.9% for nontraditional students (Balemian & Feng, 2013). Of first-generation students, 75.3% were considering a part-time job while in college compared to 56.4% of traditional college students. There were 73.4% of FGCS planning to live at home as compared to 53.9% of traditional college
students (Balemian & Feng, 2013). A disproportionate number of first-generation college students come from lower socioeconomic households, resulting in the need for FGCS to attain financial aid and consider other means to alleviate financial constraints (Engle & Tinto, 2008; Saenz et al., 2007; Warburton, Burgarin, Nunez, & Carroll, 2001).

The above-mentioned factors are significant because first-generation college students, as a result of personal obligations, are not as likely to connect with other students and campus resources as their peers due to lack of time and opportunity. First-generation college students are also more likely to drop out of college during their second year in college (Ishitani, 2016). Keeping a student engaged at an institution increases their likelihood of degree completion (Ishitani, 2003; Ishitani, 2016). Continuing the efforts toward graduation can be an even harder task if working alone without community and peer support. Social integration efforts, especially during an FGC student’s second year of college and into their third year, may influence the retention of this population.

There are many postsecondary institutional choices for first-generation students in the United States. Cho, Hudley, Lee, Barry, and Kelly (2008) found that the ethnic makeup of a school and parental input about the campus and community were important factors in selecting a college for African American and Latino first-generation college students. Among SAT/ACT test-takers in 2011, 10.2% of first-generation college students planned to attend 2-year community or junior college compared to 4.9% of non-first-generation students (Balemian & Feng, 2013). First-generation college students often select institutions that are medium sized, coeducational, and closer to home near their postsecondary placement (Balemian & Feng, 2013). More first-generation college students are likely to live within 50 miles of their home institution
with the proximity being close to home as an important reason for selecting a campus (Saenz et al., 2007). Also, first-generation college students of color are less likely to attend four-year institutions, opting for less selective colleges (Carnevale & Strohl, 2013). Less prestigious colleges could mean fewer networks and contacts in the workforce. Such impacts may negatively impact career trajectory and income status outcome.

Additionally, first-generation college students are also often employed while enrolled in classes (Chen, 2005; Engle & Tinto, 2008; Redford et al., 2017). Typically, these students work a greater number of hours than their traditional counterparts (Saenz et al., 2007; Spiegler & Bednarek, 2013). About 40% of full-time and 73% of part-time students were employed (Aud et al., 2012). First-generation college students were likely to have dependents and serve as single parents (Engle & Tinto, 2008). First-generation college students are more likely to live off campus, work part-time or more hours, spend more time with families and continue to provide home assistance, take fewer credit hours per term, and attend fewer extra-curricular events (Spiegler & Bednarek, 2013).

Many first-generation college students drop out of college before attaining a degree. One study focused on 2002 high school sophomores who enrolled in college but did not obtain a degree by 2012 (Redford, Hoyer, & Ralph, 2017). FGCS who do not complete a degree stated they could not afford college (54%), experienced a change in family status (42%), or had demands at home that conflicted with college (31%). The difficult factors surrounding a student’s motivation to complete college impact the likelihood of a student continuing in their higher education pursuits.
Students of color, more than White students, self-report different campus climates such as racist, hostile, high levels of discrimination, disrespectful environments and a sense that campuses can be less accepting of minority groups (McCoy, 2014; Quaye, Griffin, & Museus, 2015; Rankin & Reason, 2005). Students of color at predominately White institutions are often the only in their classroom experiences (Quaye, Griffin, & Museus, 2015; Rankin & Reason, 2005). There is also a lack of African American students in scientific fields (Green & Glasson, 2009). As a result, African American students may feel alone and isolated from others in the field or from other students who look like themselves at the institution. Some students of color develop coping strategies to succeed academically as they encounter racism on campus (Sinanan, 2016). Often, these students of color believe that their actions and comments represent not only their individual opinion, but also that of their identified race or culture. Such pressure can be overwhelming for young adults who are learning about themselves every day.

First-generation students of color can believe that they are not prepared for such demanding academic surroundings with pressures to prove their academic abilities (Davis, 2010; Quaye, Griffin, & Museus, 2015). Predominately White institutions can better support their students of color by welcoming and mentoring these students into the new learning environment (Green & Glasson, 2009). African American students, a subset of students of color, is one example. Recognizing African American students as individuals rather than a group identity perception as inferior is one strategy to eliminate what students perceive as stereotypes or a hidden curriculum within science majors like physics (Green & Glasson, 2009). For example, in class discussions professors expect or ask the few students of color in the room to speak on behalf of their racial or ethnicity group.
Connecting students of color to peers who share their racial and/or ethnic background, cultural status and their first-generation status may increase the chances of a student persisting at an institution. Points of contact such as multicultural affairs offices, affinity groups, and faculty and staff of color and first-generation status could help students to connect and relate to others who have similar journeys and are examples of success (McCoy, 2014; Ward et al., 2012). Having a friend or mentor who processes experiences and feelings, who encourages, advocates, and provides advice to a student who may feel marginalized and alone could reinforce the normalcy of their experience and provide strategies to overcome concerns. Broad institutional strategies can include a combination of social and academic support needed for FGCSOC to overcome the tendency to give up and leave an institution. Such intentional plans include mentor programs, developmental education programs for writing, math, and test-taking skills, as well as special services for tutoring, study skills and peer counseling (Ward et al., 2012). Ward, Siegel, and Davenport (2012) also recommend institutions emphasize connections of academic achievements within out-of-class experiences, including leadership development, self-discovery, faculty-student interaction, social integration, and social responsibility like skills, networking, and cultural awareness.

Faculty and staff members need to acknowledge and recognize that students of color experience college differently than their White peers. Educating faculty and staff members about ways to support first-generation college students of color may result in procedures or program objectives. Evidential strategies of ways educators effectively help FGCSOC are through symbolic, fiscal, and administrative actions (Rankin & Reason, 2005; Ward et al., 2012). Incorporation of culturally diverse perspectives conveys the message that underserved group
histories and traditions are just as important and valued as dominant group members. Departments can share insights with institutional partners about the tendencies and practices of high-risk populations. Communication with campus departments about at-risk students and needs during critical periods in the semester can aid to overcome at-risk challenges. Ishitani (2003) recommends initiating interventions to minimize first-generation college student departures from an institution. One example is to provide an academic support map with plans and services and to develop a plan of action for a student to get help if a student is considering departure.

Mapping academic support needs could highlight risk factors to connect first-generation college students to their academic advisors sooner and more frequently to address academic concerns before they become a problem. Institutions can design programs to target at-risk students during critical periods to redirect as possible and to ensure first-generation college students of color are aware of campus resources like multicultural centers to help them cope in college (McCoy, 2014).

**Campus Climates and Cultural Capital**

Until predominately White institutions (PWIs) address historical and systemic issues related to racial and cultural barriers, problems such as equitable access to higher education, micro and macro-aggressions will continue to present challenges for marginalized groups at these institutions. Microaggression is an unconscious comment or action that “expresses a prejudiced attitude toward a member of a marginalized group” (Merriam-Webster’s dictionary, 2018, para. 1). Macroaggression, therefore, is an intentional comment or action that expresses a prejudice against a marginalized group like a racial minority. Institutions that provide opportunities can ultimately be supportive environments for these students who often represent
non-traditional perspectives of students. Racially motivated incidents and related concerns that students of color experience must be heard, validated, and directly addressed as incidents present themselves on PWI campuses.

The campus community can be perceived as an unwelcoming environment by marginalized student groups at PWIs. Microaggressions experienced in the campus community from other students, staff, and faculty can contribute to such student’s lack of belonging, discouraging them to be engaged in their college activities. Terenzini, Springer, Yaeger, Pascarella, and Nora (1996) found that first-generation college students were less likely to perceive that faculty members were concerned about student development and teaching. Such students can feel like imposters because they do not have the insider cultural knowledge. Group affiliation can inform students of academic expectations to navigate getting questions answered about course material and institutional bureaucracy. For example, understanding the use of faculty office hours is a new phenomenon for most students although a common practice at higher education institutions. Appropriately challenging a faculty member in a class or the culture of what is permissible behavior in a classroom are unusual practices for first-generation college students if they come from large, public high schools. In many large, public schools, permission was obtained to go to the bathroom, to talk with the instructor, and engage in conversation in the classroom. Learning about unwritten institutional expectations of student engagement inside and outside the classroom can help students to become more engaged on campus. These are concepts that many White, traditional students take for granted that must be learned by FGCSOC.
The sense of belonging implicates how support programs engage first-generation college students with enhanced activities, policies, and practices to improve student experiences. The goal is for institutions of higher education to become centers of inclusion and awareness. Sense of belonging is not just a state of being, rather an ongoing, interactional process (Samura, 2016). Armed with the knowledge of what belonging looks like, where it occurs, and how it happens, educators can facilitate campus environments of belonging and success which contribute to student engagement with their institution and peers, as well as faculty and staff.

The campus environment can also contribute to a student’s belief that they do not belong. Institutional factors may contribute to first-generation college students not graduating from college. The student’s perception of a campus climate can support a student’s sense of feeling at home and that they matter in the academic setting. Some of these attitudes are psychologically and socially driven due to a person’s background and forces of support available or provided to the student. Lacking the cultural and social capital necessary to transition smoothly and persist in the selected campus environment may cause first-generation students to feel like imposters at their home institution. As a result, first-generation college students often do not engage with others and struggle to navigate the institutional culture, believe the institutional environment is an unwelcoming environment, and have a sense that programs and resources are not for them.

Solórzano, Ceja, Yosso (2000) recommend four characteristics believed to nurture a positive campus climate:

1. the inclusion of students, faculty, and administrators of color;
2. a curriculum that reflects the historical and contemporary experiences of people of color;
3. programs to support the recruitment, retention, and graduation of students of color; and
4. a college/university mission that reinforces the institution’s commitment to pluralism.

(Solórzano et al., 2000, p. 62)

Engle (2007) recommends several pre-college preparations for first-generation students.
Once accepted into college, the recommendations are to ease the transition by providing the student considerable support, validation and participation in programs unique to their needs, offer opportunities for exposure and engagement, and eliminate barriers to engage in the campus environment. Practices to ease the transition to college include living on campus, getting involved with curricular and co-curricular activities, and providing work-study opportunities.

Many strategies are recommended by researchers that may help students better develop cultural knowledge. Participation in living-learning programs, mandatory transfer student orientations, and encouraging academic peer interactions are a few of the recommendations to aid students to narrow the cultural gap (Mehta, Newbold, & O’Rourke, 2011). First-generation college students are also recommended to increase involvement with study groups, peer tutoring, and utilization of study locations to engage with other students (Stebleton & Soria, 2012). Employment on campus may also assist first-generation college students to get the work they need while exposing them to a higher degree of the campus cultural capital. The more a student engages in campus activities, the more likely they are to believe the campus is a welcoming environment. Pike and Kuh (2005) recommend to institutions that are serious about improving their first-generation college student success rate to require students to live on campus, where they are likely to engage with campus life, thereby increasing cultural capital.
Departments can share insights with institutional partners about the tendencies and practices of at-risk populations. Communication to campus departments about at-risk students and needs during critical periods in the semester can help mitigate these challenges. Ishitani (2003) recommends initiating interventions to minimize first-generation college student departures from an institution. One example is to provide an academic support map with plans and services and to develop a plan of action for a student to get help if a student is considering departure.

A student taking fewer credit hours also means more time away from the campus to gain cultural capital. Without the knowledge to navigate the campus climate, students may struggle and go undetected. Undetected struggles lead to poor management of the stress related to academic progress. Interactions with academic advisors may help to overcome this obstacle. Academic advisors not only can maneuver the institutional hurdles but many also possess backgrounds in college student development or counseling to recognize the patterns of behaviors and physical signs of struggling students and to ask difficult questions about coping in college (Stebleton & Soria, 2012).

Instructional strategies can help further students’ development of cultural competence; and subsequently cultural competence includes: normalizing multicultural students' presence in social spaces, validating their experiences, and reflecting on our cultural backgrounds and histories (Kardong-Edgren, 2007; Morton-Miller, 2013; Pyne & Means, 2013). Educators can integrate cultural content into presentations and programs they teach (Kardong-Edgren, 2007). Use of pictures and quotes from people of varying backgrounds into artwork across the university and in visual aid presentations can also serve to normalize the multicultural presence
at the institution. Counter-stories to the traditional norm can provide a more critical point of view (Pyne & Means, 2013). Stories told, quotes, and pictures can provide a message of multicultural awareness and acceptance. One example can be an inclusion of stories and experiences from a Native or African American perspective into course curriculum.

Conceptual Framework: Student Engagement and High-Impact Educational Practices

Found to contribute to college student success, Kuh (2009) defined student engagement as “the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities” (p. 683). Time on task and the quality of effort devoted to the collegiate experience are key components of student engagement. Student engagement is not only the responsibility of the student but is also the responsibility of the institution the student attends (Quaye & Harper, 2015). Student engagement concepts have evolved to not only acknowledge the student’s behavior, but also the student’s background and positionality, and the institution’s role in creating a nuanced intervention approach. The current student engagement framework incorporates psycho-social, socio-cultural, and socio-ecological influences into student engagement. Each of these frameworks are analyzed below.

Engagement, from a psycho-social perspective, focuses not only on the teaching and support of the student, but also on elements that are within the control of the student to improve. Common concepts of engagement involve three psychological perspectives: behavioral, emotional and cognitive engagement (Fredricks, Blumenfeld, & Paris, 2004; Kahu, 2013; Lee, 2014; Lester, 2013). Behavioral engagement involves positive conduct and active participation in curricular or co-curricular activities. These actions include time spent on studying, asking and
receiving assistance from professors, and involvement with a learning community. Emotional engagement regards the emotional reaction, or attitude, a student has towards the institution or instructor, which include interest, boredom or anxiety. Specifically, the “student’s affective reactions in the classroom” (Fredricks et al., 2004, p. 63). Emotional engagement can build sentimental ties to an institution. Cognitive engagement relates to the student’s investment in learning, their motivation and self-regulation for the work’s challenge, or the value the student has for learning (Fredricks et al., 2004). An example is the student’s engagement in terms of being strategic or self-regulating. The psychological investment in learning relates to the learning and motivation constructs. Psycho-social engagement framework places the onus of engagement on the student. However, there are other factors that may impact a student’s drive to engage.

The socio-cultural perspective incorporates influence of the social experience on the student (Kahu, 2013). These concepts focus on why a student may be committed to or isolated from an institution. Some institutional cultures possess cultural biases that promote dominant social groups. Structural influences are those within the university that include the curriculum, culture and appropriations to learning, as well as the student’s background, support, family, and life pressures (such as financial needs, dependents, etc.). Psychosocial influences include the instructors and staff of the institution and the relationship the student has with these sources that trigger motivations, identity, and self-efficacy. The consequences are academic and social. Proximal consequences impact the learning achievement of the student and the social satisfaction and well-being of the student, similar to Tinto’s (1975) academic and social integration. The distal consequences reflect the academic retention and success of the student and the social long-term impact to citizenship and personal growth of the individual. Sociocultural influences
overlay each of the former mentioned influences and consequences. The political and social environment related to culture, power, and economics are sociocultural influences that impact student engagement outcomes. For marginalized students, engaging in social environments that do not look, act or have backgrounds similar to their experiences may lead to disconnection and alienation of students.

Three indicators of social-cultural engagement are cultural congruence, cultural relevance, and cultural correspondence (Lawson & Lawson, 2013). Cultural congruence refers to the support a student has for their culture and personal identities. The emotional importance an activity has on a person refers to cultural relevance. Cultural correspondence refers to how an activity relates to a student’s prior knowledge or experiences.

The social-ecological framework addresses the social environment and the interactions between academic and community environments that may influence a student’s engagement in other areas like the institution. This framework encourages a nuanced intervention approach to engagement (Lawson & Lawson, 2013). Lawson and Lawson (2013) called this process “dynamic, social and synergistic” representing the interactions and transactions of people and their social habitat (p. 441). This process that brings in a student’s prior attachment has three transactional processes of engagement: attentional acts, positional acts, and agentic acts. Attentional acts align students to activities and social environments ingrained with tools and skills like technology, people, places, activities, and tasks. A student’s positionality relates to student’s identities and what engaging activities they do in relation to a social context over time. When developing activities, the educator considers where the student is in their developmental and social process and incorporates that knowledge into the activity. Agentic acts of engagement
represent how a student expresses their thoughts, interests, and opinions during any given activity. Marginalized groups in particular can relate their social engagement to the activity or how the student chooses to participate.

**Student Engagement Strategies**

Student engagement has become a primary focus of higher education institutions over the past two decades (Lester, 2013). Engagement practices are strategies to assist student development and engage with learning. Educators recognize that the higher the degree of student integration into the institution, the greater the student’s commitment will be to the institution and likelihood of college completion (Tinto, 1975). The lower a student’s integration to the university, the more likely they are to drop out. Students who are uninvolved or disengaged from campus life and activities often lack a sense of belonging at their institution. Subsequently, poor sense of belonging may lead to students’ developing negative perceptions about their college and experiences, increasing the likelihood of further symptoms that result in dropping out. Dissatisfaction with the academic climate can lead to depression and withdrawal from the institution.

A recent understanding about student engagement relates to a multifaceted strategy to enhance and deepen student’s learning success while attending an institution (Kahu, 2013; Lawson & Lawson, 2013; Quaye & Harper, 2015). Increased student engagement could have a significant impact on student learning and college outcomes (Kuh, Kinzie, Schuh, & Whitt, 2005). Kuh (2009) argued that the positive engagement effects are similar for all student demographics regardless of race, generational status, and educational preparation although the type of activity may benefit some groups more than others. The involvement in educationally
meaningful activities assists to level the playing field of traditionally disadvantaged students. Student engagement strategies integrate the student and institution’s time and effort. The engaged student could be a critical component of why, regardless of background and intelligence, students ultimately graduate from college.

First-generation students entering higher education experience obstacles to their success related to their non-traditional background. Developing social networks can be limiting when a student is on campus for a finite period of time beyond class attendance. Crafting friendships takes time and effort. First-generation students who attend college close to home may already have preexisting social networks. However, students who are not close to home, often engage in social events that may require additional financial resources. Going out to dinner or the movies can quickly become expensive social expectations. Social opportunities may conflict with work and family commitments as well. Finding friendships of people who may experience similar backgrounds and obstacles can prove difficult when you believe yourself to be the ‘only one’. One study found that most African American and Latino first-generation students claimed that the campus and community ethnic make-up was an important factor in their institution selection (Cho et al., 2008). Building a friendship support network has proven to be imperative for a student’s academic adjustment (Irlbeck, Adams, Akers, Burris, & Jones, 2014).

Researchers recommend postsecondary institutions strategically use high-impact educational practices to channel students’ time and energy to raise students’ learning levels and foster students’ academic and social integration (Kuh, 2008; Moon, Sullivan, Hershey, Walker, Bosangue, Filowitz, Fernandez, Unnikrishnan, & Delgado, 2013; Quaye & Harper, 2015). Activities considered to be high-impact are meaningful, effective, and deepen student
engagement with learning (Moon et al., 2013). High-impact educational practices allow for faculty/staff and peer student feedback, leading to opportunities for more interaction and timely feedback, as well as involvement, academic and social integration. Strategies associated with high-impact practices (HIPs) are first-year seminars and experiences, common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, service learning, community based-learning, internships, and capstone courses and projects. These practices are engagement focused interventions that synergize curricular and co-curricular student worlds. They encourage partnerships, a multipronged, strategic approach to engage and recommend at least two methods in conjunction may be necessary to engage students of color in a predominately White campus (Quaye & Harper, 2015). High-impact practices not only allow students to engage more with the institution and deepen learning, but also strengthen opportunities for social integration to the campus. Specific connections between HIPs and intended learning outcomes must be established to raise the level of learning and engagement. These forms of interactions contribute to an increase in engagement that could lead to positive student learning outcomes that are active, consistent, and lead to persistence toward graduation.

Underrepresented students historically benefitted more than traditional college students by participating in high-impact educational practices (Kuh, 2008). Programs like Summer Bridge enable students to connect with campus resources and develop a peer network prior to the start of the academic year (Quaye & Harper, 2015). Summer Bridge programs link an intentional curriculum with a community and social theme for underrepresented student populations. A peer
group of students working through the transition to college together with similar backgrounds helps to build confidence.

**Student Affairs Educator’s Role in Cultivating Student Engagement**

Student affairs educators play a critical role in designing and delivering support programs for first-generation college students of color at PWIs. A core tenet for student affairs educators is “encouraging an understanding and respect for diversity, a belief in the worth of individuals, and supporting our students in their needs” (NASPA, 2016, para. 2). Student affairs educators often work to provide co-curricular services to college students. Such services include housing, admissions, academic advising, tutoring, health and wellness, counseling, campus life, orientation, student support services, and offices, like the Dean of Students, that provide services, resources, and advocates for the needs and interests of students, to name a few. Student affairs educators often possess masters and doctoral degrees in disciplines such as college student development, counseling, higher education administration, educational leadership, and philosophy. Armed with the knowledge of curricular and experiential opportunities and working with college student populations, these educators are familiar with student patterns and trends that may assist or impede a student’s academic progress at an institution of higher learning.

An institution’s cultural climate influences the services and interactions with students these staff members provide. Student affairs educators are receptive and attentive to student needs once the student arrives on campus, in the classroom, and in the campus social environment. Acknowledging and assessing the institution’s student demographics can provide staff members with insight into the multiple layers of identities, diverse backgrounds, and student experiences. Educators and administrators can plot high-risk periods, identify students
who are likely to struggle, and develop strategies to address student needs proactively (Ishitani, 2003). Academic, social, and environmental support plans can be implemented to address attrition risks before an actual deficit or problem occurs. These strategies could increase retention and provide services students need through difficult college adjustment times.

The role of student affairs educators includes advising, counseling, management, or administrative functions beyond the classroom setting (ACPA, 2018). One opportunity beyond the classroom that can be impacted by student affairs educators is that of the initial college campus orientation for the student and family members. First-generation college students have many family-centered responsibilities. Integrating family members into campus orientation provides family members an understanding of the time commitment and academic rigor of college. A family member’s appreciation of the in-class and out-of-class commitment for success may reduce family and academic conflict students tend to encounter (Ume-Nwagbo, 2012).

Knowing the student demographic profile of age, race, ethnicity, gender, sexual orientation, and other identities can assist staff to be culturally conscious and encourage cultural competence of colleagues and other students to better serve the breadth of diverse students on campus (McGlynn, 2011). Transparency in acknowledging and managing student needs provides customized resources to students who need aid the most. Programs and services, such as learning communities and personal adjustment services, can be tailored to serve the unique cultural needs of first-generation college students of color and their families. Therefore, staff members could be conscious of students’ sense of frustration and concerns related to fit at their home institution. Additional tutoring, along with peer and group support opportunities could assist in overcoming the psychological impact of the student’s situation.
Student affairs educators must be culturally competent when working with first-generation college students of color. College student demographics projections across the nation indicate a continued increase of diverse students (Association of American Colleges & Universities, 2015). The increased student diversity implies more non-traditional students, first-generation, and students of color at PWIs will also increase. Methods used to aid traditional students in the past may not be as useful for the evolving student demographic institutions now face. Integrated learning environments that foster diverse student interactions and cross-cultural student engagement is a better strategy to enhance learning for the range of students we serve (Wilson, Sanner, & McAllister, 2010).

**Implications for Educational Leadership**

Higher educational leaders strive to meet institutional missions to increase student graduation rates and must be able to develop initiatives that demonstrate positive impact on student graduation rates. Support programs that serve underrepresented students are well positioned to help achieve institutional goals to increase overall graduation rates. This is especially critical as institutions experience increasing enrollment of FGCS, as well as student populations who represent the intersectionality of FGCS and racially diverse backgrounds. Programs that address such intersectionalities among students may help to foster the development of students and their overall rate of completion at PWIs.

Support programs provide co-curricular services and experiences which contribute to the academic mission of higher education institutions and ultimately the retention and success of college students. Providing intentionally crafted programs featuring high-impact educational practices promote the academic and social engagement of all students. Such intentionally
designed programs may impact a student’s sense of being valued and mattering on a college campus, giving way to positive student outcomes, especially if focused on marginalized student populations. The goal often associated with college service programs is to create spaces of retreat, welcome, and sense of safety for students. These offices and centers are places where students can be their genuine selves, increasing the odds of success and support amongst students.

Education leaders within the context of postsecondary institutions are positioned to support and influence programs that focus on high impact practices and effective student engagement. Programs like the one investigated in this study are created with academic and social engagement of the college student in mind. Evidence-based programming demonstrate positive student outcomes, especially for FGCSOC at predominately White institutions.

**Summary**

The reviewed literature examined the intersection of FGCS of color’s engagement and high-impact educational practices. Findings from the review suggests that students of color, particularly, Black and Latina/o FGCS who attend predominately White institutions, tend to report college experiences that are unique from their White peers. These experiences can impact student success and persistence in college. Postsecondary educators and personnel play a critical role that can positively affect first-generation college students of color engagement at an institution. Awareness and adaption of policies and practices that account for the unique experiences of FGCS of color may result in more students remaining and graduating from their institution. A high-impact program that serves first-generation college students of color was
sampled for this research study in order to examine the impact of student engagement on academic success indicators, specifically GPA at the end of the first year of college.
Chapter 3: Methodology

The primary question addressed in the study was what impact, if any, does student engagement in high-impact practices have on students’ grades and first-year retention among first-generation students of color (FGCSOC) who participated in a support program while they attended a predominantly White institution. The following research questions were used to explore the primary questions:

- What is the association between high-impact practices and student grade point averages at the end of the first year of participation in a college support program?
- What is the relationship among high-impact practices, grade point averages, and background characteristics of the student at the end of the first year of participation in a college support program?

This chapter provides a discussion of the research design, including the delineation of study participants, consent process, data collection procedures, ethical considerations, research validity, and the description of data analysis techniques. The first complete academic year GPA were collected for this study.

Research Design

A non-experimental quantitative design (Johnson & Christensen, 2012; Laerd, 2012) was selected to investigate the engagement of first-generation college students of color during their first year in a support program situated at a predominantly White institution. The correlational study was a search for the prediction and strength of a link between variables of engagement, not a conclusion about the cause of the relationship.
A non-experimental quantitative design (Johnson & Christensen, 2012; Laerd, 2012) was deemed appropriate given that the researcher could not manipulate the student’s engagement with the program. Students self-selected to participate in the support program who met the minimal program criteria. The students also reported their level of engagement in the high-impact educational (HIP) program that may have impacted their GPA at their institution. Finally, the program developed participation requirements and expectations for students. Therefore, the researcher had an existing group of individuals at the center of the study, which led to a cross-sectional design.

There are three features associated with cross-sectional designs. One component is a specific ‘point in time’ snapshot of the outcome. Data occurred at one point in time to analyze the relationship between variables. The second feature was the reliance on existing differences rather than a treatment intervention. The existing differences in this study were that students determined their level of engagement with the program’s curriculum. Finally, all participants of the program between a specific period were invited to participate in the study. A survey tool, "Survey of Program Participant Experiences" (SPPE), was utilized to gather data. This design focused on drawing inferences from existing differences in the participant’s engagement as a member of the program. Thus, a cross-sectional design was appropriate to measure differences between individuals involved in the program.

The weaknesses associated with the non-experimental, cross-sectional design centered around uncontrollable extraneous variables (USC Libraries, 2018). One example involved the demographic status of the student: whether the student was local to the institutional area. A student’s status as an out of state or international applicant may impact their success in college.
The fact that a student also had to learn and adapt to the culture of the institution and community as a new resident in the area may have attributed to whether or not a student was academically successful. As a result, the study’s questionnaire asked for the residential status of the students involved. Finally, the study was not able to control for individual student characteristics such as student resilience and additional support systems, such as family and peers. The study identified the participants before college qualifications such as high school GPA and ACT scores for their academic risk factors. The study sought student information about their time spent participating in and their commitment to the program.

**Site Selection and Access**

The predominately White institution (PWI) targeted for this study is situated in the southeastern United States region and was classified by the Carnegie Foundation as community engaged and identified as a residential campus (NERCHE, 2017). The Trio program of focus is housed at a public, four-year, land-grant, and research institution. Degree majors focus on agricultural, natural resources, engineering, mathematics, and natural and physical sciences. The main campus enrolled 21,883 students in fall 2017, 83.7% of which were undergraduate students (Institutional Research & Effectiveness, 2017). This institution requires first-year students to live on campus. In 2017, women made up 49% of the student population. Twenty-five percent of the student population identified as racial minorities, which qualified the university as a PWI.

The Trio program at the selected institution focused on first-generation, low-income students. The program offered services that included tutoring, cultural enhancement, direct correspondence with financial aid counselors, counseling, and study skills (J. Capella, 2017).
The program existed within the Division of Student Affairs, as a part of the Department of Student Support Services.

One hundred and sixty first-generation college students participated in the program between 2012 and 2017 (J. Capella, 2017). There were up to 60 new participants each year. To participate in the Trio program, a student must have completed a Trio application, be a first-generation student (whose parents have not completed a bachelor’s degree), qualified as poverty status by the U.S. Census Bureau (e.g., a family of four making $37,650 or less), and have an established low college GPA, low American College Test (ACT) score, or is a non-traditional student (Trio, 2016; U.S. Department of Education, 2018). Although the program did not specifically target racial or ethnic groups, the majority of the students identified as students of color. The demographics of the program participants are 65% minorities with 41% Black and 17% Hispanic (Trio, 2016). Publicly available data is displayed below.

<table>
<thead>
<tr>
<th>Enrollment Demographics (Fall 2017)</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University</strong></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21,883</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>83.7%</td>
</tr>
<tr>
<td>Women</td>
<td>49%</td>
</tr>
<tr>
<td>Students of Color</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Support Program</strong></td>
<td></td>
</tr>
<tr>
<td>FGC Student Participation 2012-2017</td>
<td>160</td>
</tr>
<tr>
<td>FGCS of Color</td>
<td>65%</td>
</tr>
</tbody>
</table>
The program maintained current and historical data of program participants that included names and email addresses. The program director provided written consent to access programmatic and student data. Current and former program students were invited by email to participate in the study, with permission from the university’s Institutional Review Board (IRB) and program director. Students and alumni who agreed to participate in the study were sent the formal participant invitation, the informed consent document, and the Qualtrics link. This method minimized bias sampling and allowed participants to opt out of the study.

**Participants**

Program participants elected to participate in the target program, Trio. Invited study participants were active in the support program between the academic years of 2012 to spring 2018. The participants per year were as follows:

- Since 2013 – 1
- Since 2014 – 6
- Since 2015 – 9
- Since 2016 - 14
- Since 2017 - 28

Eligible participants were at least 18 years of age. The sample was stratified to include only first-generation college students of color. Program students who did not identify as a student of color by this study’s definition were removed before the analysis, which equaled 9.6% of respondents.

Criteria for participation in the program included students whose parents had not received a bachelor’s degree, were identified as low-income status, low starting GPA, low ACT score, non-traditional student, etc. There are a few exceptions to the program’s eligibility rules that
allowed flexibility to select appropriate candidates. One example is candidates with a low ACT score. An ACT score of 22 or lower is a general student qualifier. These students were likely to struggle with the academic rigor at the institution therefore additional support and guidance may be warranted. However, if a student achieved higher than a 22 and identified as a minority status in an underrepresented field such as engineering, they could have also been accepted into the Trio program. Another example is a student who is older than 22 and had not been in college for several years were also considered for acceptance into the program under the “non-traditional” category.

**Operational Definition of Variables**

This section includes descriptions of how relevant variables were measured for the study.

*Grade Point Average (GPA)* was self-reported by participants on the Survey of Program Participants Experiences (SPPE) on a 0.00-4.00 scale according to university standards for the end of their year with Trio.

*High-impact educational practices* (HIPs) were self-reported by participants on the Survey of Program Participants Experiences (SPPE). Specifically, participants indicated the activities they were engaged in while in the Trio program. HIPs included learning programs or communities, first-year seminars, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, service learning or community-based learning, internships, and/or capstone courses/projects. The participant checked all that they were engaged in at any point during their first year as a Trio participant.

*Student engagement* was self-reported by participants on the Survey of Program Participants Experiences (SPPE). Student engagement was measured by a student’s participation
in activities such as study groups, tutoring sessions, and meeting with faculty/staff as a part of the Trio program on a Likert scale of 1 indicating never to 5 for participated in every class or session.

*Student of color* (SOC) is any non-White racial/ethnic group (Chen, 2005; Horn & Nuñez, 2000; Ishitani, 2016; Ward, Siegel, & Davenport, 2012). The SOC status of participants was measured by asking the participant how they self-identify their race primarily as Asian, Black/African descent, Hispanic/Latino(a), White/Caucasian or Other and asked to specify. 1=Asian, 2=Black/African descent, 3=Hispanic/Latino(a), 4=White/Caucasian, and 5=Other. The student selected all categories they identified.

**Instrumentation**

A survey tool, "Survey of Program Participant Experiences" (SPPE), was developed to examine the engagement level of students involved in the support program. The SPPE was developed from a review of relevant literature and adapted from existing surveys. The SPPE prompted participants to self-report their level of commitment. The anticipated reasonable response rate with the support of the program director was 90%. Students spent multiple years in the Trio program that encouraged them to participate in the research as they have built a rapport with the program, the program staff members and one another. To overcome bias, the participants were invited to share their experiences with the researcher who was not affiliated with the program. The actual response rate was 83 respondents or 80.5% of the program participants.

The SPPE was adapted from four previously published surveys: Student Engagement Survey, OIRPS data related to first-year GPA and retention, questions from the NSSE survey of
The College Student Report, and questions from the CSEQ survey (Bonet & Walters, 2016; Cabrera, Miner & Milem, 2013; Pike, Kuh & McCormick, 2011; Roccini, 2011). For this study, components used for this instrument were a) the preexisting survey portions of Bonet and Walters (2016) student engagement survey, Cabrera, Miner and Milem’s (2013) OIRPS data and longitudinal survey, Pike, Kuh and McCormick (2011) NSSE survey instrument, as well as Roccini (2011) from the CSEQ survey; and b) the student’s self-reported GPAs at the end of their first year. The survey included three engagement categories for examination—student behaviors, institutional support, and sociocultural influences. Student behaviors focused on time and effort a student put into their involvement and the quality of that effort. A question within this section was “How often did you perform the following behaviors during your time in the program?” Institutional conditions centered on how the institution uses their resources to support students. A question under this category was “How often do you believe the institution supported your interaction to spending significant amounts of time studying and on academic work?” Finally, sociocultural influences target a student’s social self-concept and college experiences. A sample of the questions in this category inquired about the student’s social self-confidence. The adapted survey instrument was entered into the Qualtrics online software program for electronic dissemination to study participants. In the analysis only student engagement was the focus.

Data related to student engagement in high-impact practices was collected using an adapted survey instrument (Cabrera, Miner & Milem, 2013) that measures the engagement of the participants in their first-year college experiences. Cabrera, Miner, and Milem (2013) developed the instrument to examine the impact of first-year student engagement on persistence and performance during participation in a summer support program. The original survey authors used
two sources for their instrument: their institutional research planning (OIRPS) and a longitudinal survey they created. The author-created longitudinal survey measures student demographic characteristics; college goals, aspirations, and anticipated involvement; diversity composition of precollege and college environments; cognitive and social self-assessments; and collegiate involvement and perceptions of the campus climate. Five slightly modified questions were used from this survey. Specifically, “During your time in the Trio program, how often have you…1) studied in groups outside of class; 2) attended tutoring sessions to receive help on a specific course; 3) attended academic support programs; 4) had informal conversations with faculty and/or staff members; and 5) met with faculty and/or staff during office hours.” Permission to use this instrument was approved by the authors (Cabrera, Miner & Milem, 2013).

*The College Student Report*, adapted from the NSSE survey, focused on six student engagement measures (Pike, Kuh & McCormick, 2011). This instrument incorporated four of the six measures – academic effort, diversity experience, active and collaborative learning, and supportive campus environment. There were eight questions in the survey related to active and collaborative learning. Specifically, “During your time in the Trio program, how often have you…1) asked questions in a Trio related event or contributed to discussions; 2) made a class presentation for Trio students; 3) worked with other Trio students on projects; 4) worked with Trio students outside the program to prepare assignments; 5) tutored or taught other Trio students; 6) worked with other Trio students on projects during class; 7) participated in a community-based project (e.g., service learning) as a part of the Trio program; and 8) discussed ideas from your readings or classes with others outside of the Trio session (students, family
members, co-workers, etc.).” Permission to use this instrument was approved by the authors (Pike, Kuh & McCormick, 2011). Validation of the instrument was needed to support this study.

Roccini (2011) survey was crafted from the College Student Experiences Questionnaire (CSEQ) based on Pace’s model of student development. Three categories are associated with this model – a) the college experience of the student while in college; b) students’ ability to make sense of these experiences was impacted by the campus environment and the quality of the effort by the student; and c) the growth and development of students come from their effort and the college environment. The quality of effort included interactions with faculty members, interactions with other students, and effort of coursework. The perception of the student’s environment focused on academic and social settings to impact the student’s self-reported general education gains. There were five questions in the survey related to quality of effort. Specifically, “During your time in the Trio program, I 1) became acquainted with student(s) whose interests were different from mine; 2) became acquainted with student(s) whose family backgrounds (economic, social) was different than mine; 3) became acquainted with student(s) whose race or ethnic background was different from mine; 4) had series discussions with student(s) whose philosophy of life or personal values were very different than yours; and 5) had serious discussions with student(s) whose race or ethnic background was different from mine.” Permission to use this instrument was approved by the author (Roccini, 2011).

Lastly, Bonet and Walters (2016) investigated student engagement at a community college measured by grades and course completion. This survey tool, the Student Engagement Survey, used student engagement regarding faculty to student engagement, engagement with peers, and intellectual engagement. Only peer engagement was used from this survey tool about
student behaviors. A sample of this question was “How often you choose to work with a
classmate on an assignment”. The focus was on the time and effort students invest in their
studies with peers. There were four questions in the survey related to engagement with peers.
Specifically, “During your time in the Trio program, how often did you/r…1) the instructor
required you to participate in group or teamwork projects during class; 2) choose to work with a
classmate on an assignment; 3) get together with classmates outside of class to study or work on
class assignments; and 4) share your viewpoints in class discussions.” Permission to use this
instrument was approved by the authors (Bonet & Walters, 2016).

The complete survey tool can be found in Appendix C. Validity and reliability was
analyzed with the newly crafted survey tool during data analysis.

Data Sources

Both self-reported and program archival student data were used to examine the
relationships among variables. Although data was collected from two sources (student and
program director), the primary research questions that were addressed relates specifically to the
student outcomes of engagement, grades, and retention at the end of the first year of college.

The data source for this study was results from surveys adapted from the research team
(Bonet & Walters, 2016; Cabrera, Miner & Milem, 2013; Pike, Kuh & McCormick, 2011;
Roccini, 2011). The adapted survey instrument was used to collect data about student
engagement experiences with high-impact practices in support programs.

Data Collection Procedures

Data collection was conducted July to November 2018 by a questionnaire disseminated to
program participants. A self-report questionnaire to participants was used to capture the
engagement experiences of the student in the program and their GPA at the end of their first-year in the Trio program.

Participants were invited to join the study by email, using a private, anonymized link through Qualtrics. The Qualtrics format allowed students to review and complete their survey on a computer or mobile device quickly and efficiently. Students with visual disabilities were able to modify for a visual aid as needed. Participants were also able to begin and pause completion of the survey allowing them to return and complete minutes or days later.

The SPPE survey data was collected through Qualtrics using the two-step "Anonymize Response" and stored electronically. IP addresses were not recorded during the data collection phase allowing participants to remain anonymous although students could submit their names to be included in the incentive drawing. Monitoring participants for any adverse effects was not necessary as there were minimal risks associated with this study. There were no unanticipated problems involving risks or breach in data security reported.

Minimal risks existed that could be associated with participating in this study. Sensitive information could have been revealed with an accidental confidentiality breach. Participants' names and other identifying information was not used to minimize the risk of identification. Names submitted based on the incentive was removed and stored separately from the data analyzed. Data was stored under password protection under an approved server, which was highly secure. Participants anticipated no risks of harm higher than what was experienced on a daily basis as routine performances were carried out.

The program director allowed the researcher to work directly with the program coordinator to identify specific strategies to entice participants. Participants were given up to five
weeks to complete the survey. Email messages, targeted group meetings, and an incentive were identified. An email invitation was sent to the participant pool along with another incentive invitation for students who completed the survey. Two emails per week as motivation reminders were developed and sent to the group until the completion deadline. The researcher was invited to speak and permitted to allow students to complete the survey at the bi-weekly meeting with the Trio coach group. Coaches are an upper-division group of sophomores and older who were selected by the Trio program to provide peer mentorship and leadership to primarily the first-year group of Trio members. A social media push utilizing the Trio program’s sites and networking campaign with students who had completed the survey was also initiated. A financial incentive of $5 gift cards towards leading shopping avenues in the town and online were implemented.

Upon receiving a sufficient number of complete student surveys, identifying information about participants were removed, anonymized, and stored in a password-protected storage drive. Participants were given e-card rewards. Trio program coaches were paid for their service and the coach with the most surveys submitted was rewarded.

Research Validity

Validity, accuracy of measurement or to draw meaningful and useful inferences from the study’s results, will also be tested (Creswell, 2014; Johnson & Christensen, 2012). Internal validity of the study is essential to align the findings to accurately reflect the research being conducted (Laerd, 2012). Three methods to support validity were content validity, construct validity, and criterion-related evident (Johnson & Christensen, 2012). Using multiple survey tools, an analysis was run to be sure the relationship among variables measure different
components of a board construct of engagement. The hypothesis was that there was a significant relationship between student engagement in high-impact practices, and the student retention rate and GPA at the end of the first year’s participation in a college support program. A factor analysis was prepared using SPSS software program. The results of the factor analysis informed us of how many test items were present.

Many main effects to internal validity were represented: history effects, maturation, testing effects, instrumentation, statistical regression, selection bias, experimental mortality, causal time order, diffusion of treatments, compensatory rivalry, demoralization, compensation, experimental effects, and subject effects (Laerd, 2012). History effects were minimal as the study focuses on a snapshot in time although participants can complete or revise their responses for up to a month. Internal threats to participants control focused on just the first year of the student experience although seeking data from participants of 2012-2018, which controlled history and maturation validity. All participants of the program were invited to participate in the study, which minimized the selection and mortality threats to internal validity.

There are four main threats and external threats that reduce the ability to generalize the conclusion found in this study. Threats to external validity are: selection bias; constructs, methods and confounding; the “real world” compared to the “experimental world”; and maturation or history effects (Dinsmore, 2014; Laerd, 2012). The target group, participants of a specific program centered on FGCS, was chosen intentionally for this quasi-experimental research design; therefore, random selection is not possible. To minimize the selection bias threat, all participants of the target program were invited to participate in the study. A single measure for the engagement construct was used. Not all variations of engagement or the level of
that engagement were used in this study. Regarding the “real world” versus the “experimental world”, the survey was disseminated once that will not influence the behavior of the participant in a pre-posttest situation, that eliminated the practice or experimental fatigue.

Experimental effects were minimized with the anonymous response survey tool. Maturation effects may be a threat to external validity in relation to time and the effect. Some participants may have recently actively participated in the program or only involved for a year while other participants may have been involved for up to six years in the program. General compensation of participants who partook in the study increased the respondent rate and can threaten the external validity of the study. Programs and leadership focus prevented generalizations beyond this experiment group to threaten the external validity of this study. As a result, inferences made about the findings of this study can only apply to the program participants during the 2012-2018 period.

**Research Reliability**

Reliability is the consistency of tests scores (Johnson & Christensen, 2012). Internal consistency is the method that will be used to test for correlation coefficient. A strong positive reliability coefficient is sought close to +1.00. To establish internal consistency reliability, the Cronbach’s alpha method was employed. Cronbach’s alpha, measuring the mean correlation across all variables, was used to determine the internal consistency of multiple variables (Johnson & Christensen, 2012; Laerd, 2013). With a population size of 160, there should be a sample size of 113 to test for a 95% confidence level (Johnson & Christensen, 2012). Mostly used in survey tools using Likert scales, Cronbach’s alpha measures each item or question within a measurement tool (Laerd, 2012, 2013). Multiple continuous variables were present in this
study, which meets Cronbach’s alpha requirements. The engagement components of student behavior, institutional support, and sociocultural truly measure engagement and the strength of the relationship between these components. Cronbach’s alpha was tested using SPSS software program. Indicators with factor loadings recommend 0.7-factor loadings. Items measuring less than 0.4 were removed. A reliability analysis was then run to determine a stable Cronbach alpha value.

Cronbach’s alpha was run for student engagement in SPSS. Student engagement found a .880 reliability for the 22 items indicating a high level of internal consistency for this scale. The average value was 61.53.

**Treatment/Cleaning and Sorting of Data**

The support program focuses on student academic success. Thus, the institution’s GPA and years of Trio involvement were collected for this study. The data was downloaded into SPSS to analyze statistically. Surveys that contained missing or incomplete data were removed from the analysis. Of the 89 total respondents, 2 were removed for incomplete information. 4 were removed who race identified as White/Caucasian. Gender was labeled as 0 and 1 for male and female respectively. Variables that are continuous are GPA and level of engagement within the program components of HIPs.

**Data Analysis**

The primary research question addressed in this study is what impact, if any, student engagement in high-impact practices has on student grades, among first-generation students of color (FGCSOC) who attend this predominantly White institution. In other words, can the observed effects of student engagement on GPAs accounted for other than chance? In order to
make inferences about such relationships, a regression analysis was deemed an appropriate method for this study. Four aspects of data analysis that was discussed in this section: the statistical model, analysis procedures, critical assumptions, and justification of the model.

Hierarchical multiple regression (HMR) demonstrates if variables of interest predict a statistical significance on the dependent variable after accounting for two or more other variables (Laerd statistics, 2013; University of Virginia Library, 2016). Regression determines the relationship between dependent and independent variables for a population, allowing the researcher to explain changes in the value of the dependent variable when there are changes in the independent variable (Dinsmore, 2014). Hierarchical multiple regression illustrates the variation in the dependent variable with the addition of one or more independent variables and the overall fit of the model to predict the outcome with the addition of each variable of interest (Laerd, 2013). Hierarchy indicates a ranking of one over the other. The prediction was that the more a first-generation college student of color was engaged with a program focused on their engagement academically, the higher GPA the student maintained while making academic progress at the institution. Using this design allowed the researcher to examine and explain the impact of each independent variable on each of the dependent variables and the order of the value.

Several assumptions were met to utilize hierarchical multiple regression (Laerd, 2013). In the hierarchical multiple regression design, the independent and dependent variables must be continuous variable(s). In this study, student engagement of HIP behaviors, the independent variables, were continuous variables. The dependent variable, GPA, was also a continuous variable in this study. A linear relationship was required between the variables. The errors must
be independent. The Durbin-Watson static was used to verify and test for a particular type of
independence was correlated. Significant data outliers did not exist. The data must share
homoscedasticity indicating that variance is constant across the independent variables. A check
of the scatter plot was conducted to check for unstandardized or standardized residual values
against the predicted values. Finally, an inspection of the errors of the regression line was
normally distributed. A review of a normal probability plot was used to confirm this assumption.
The test for p-value, or the risk the researcher would have a type I error that was under a 0.05
(Dinsmore, 2014). The effect size, how much student engagement explains GPA, should indicate
an effect between the variables.

An advantage of using a hierarchical multiple regression design was that it allowed the
researcher to observe whether the variables of interest explained a statistical difference in the
dependent variables and the size of the effect after accounting for other variables to forecast the
investigation (Laerd, 2013; University of Virginia Library, 2016). In this case, observing whether
the level of student engagement in a high-impact program predicts higher GPA at the institution
for FGCSOC in a student success program is the central focus. Another advantage of this design
was to identify anomalies in the data. Therefore, this design explained the relationship between
variables and predicted the outcomes. The researcher was able to see whether added variables
had a statistically significant impact on the effect size and the level of the effect. However, a
weakness associated with the hierarchical multiple regression design is that no causal
relationships can be implied. The cause of student engagement was not determined. As a result,
hierarchical multiple regression analysis was the best research design to use to predict the student
outcomes investigated.
SPSS software was used to analyze the data to examine regression. The independent or predictor variables were HIPs, sex, and race. The dependent variable, the end of the first-year cumulative GPA at the institution, was used to predict the student outcome. A factor analysis was needed to use a data reduction technique (Laerd, 2013). Four central assumptions of this test emerged. One assumption was that multiple and continuous variables were present. The variables in this study were levels of student engagement in student behavior, HIP involvement, and GPA. Each variable was a continuous variable. Assumption two states that there should be a linear relationship amongst all variables. No outliers for assumption three existed. All participants were from the same institution and participated in the same program meeting the program’s criteria for acceptance of first-generation college student and low-income within the last five years. The final assumption was that the sample sizes needed to be large. The population for this study was 160 with a sample size of 113 participants. All assumptions are met for this study. Finally, interpreting the findings was the final step. Using the tables provide from the SPSS test, the effect, the statistical significance, and how useful the predictors were significant were deciphered.

**Ethical Considerations**

Ethical concerns to be addressed in the sound development of this study using human subjects were found. The highest protections related to soliciting participation in the research and participant data were protected. The program participants were sought by email and in person to participate in the study. Involvement consent was obtained. Participants were informed that participation in this study was voluntary and that they may withdraw at any time from the process. Direct identifiers of study participants were removed as soon as possible. No personal
identifying information was used to compose data reports. Data was kept in secure, password protected, private locations. No foreseeable risks associated with this study surfaced.

The researcher worked at the institution in this research. Although an affiliate of the primary institution of study, the researcher had no personal affiliations with the specific program identified. Financial incentives for participants of this study were utilized if participants chose to submit their name. The researcher did not receive financial restitution for this study.

One ethical issue to consider was who provided data about the program participants. Appropriate Institutional Review Board approvals were acquired. As the institution of study participants were not the researcher’s home institution permission was also obtained from host institution with the support of the program director serving as the sponsor. The sponsor then disseminated the survey tool to program participants rather than the researcher directly.

Summary

The purpose of this study explored the relationship between high-impact programs and GPA of first-generation college students of color in this particular Trio program. This study focused on one high-impact program at a predominately White institution. Participant access and data procedures were discussed. Data was gathered using an adapted survey instrument and data provided by program participants. Ethical considerations were considered related to minimizing risks and protecting participant data. Cautions were taken to keep data linked to participants confidential. In the cleaning process, incomplete surveys and data were removed from the analysis.
Chapter 4: Results

The purpose of this study was to investigate the association among student engagement in high-impact practices while participating in a college support program designed for first-generation college primarily students of color who attend a predominately White institution. This chapter includes the presentation of the findings. In this study, high-impact practices were measured by student engagement behaviors reported by Trio program participants. Background characteristics were the student’s reported gender and race identifiers. Student participants self-reported the outcome data of GPA. The research questions are:

1. What is the association between high-impact practices and student grade point averages at the end of the first year of participation in a college support program?
2. What is the relationship among high-impact practices, grade point averages, and background characteristics of the student at the end of the first year of participation in a college support program?

Upon Institutional Review Board approval, data was collected and analyzed using SPSS software. The Survey of Program Participant Experiences (SPPE) was used to gather data from Trio program participants.

Data Preparation

The researcher worked with the student support services department at the sampled institution to connect with Trio program participants. With the support of the Trio program staff, the survey tool was disseminated to current and past Trio participants of 2012-2018. The invitation was sent in person at a group meeting, common student gathering spaces at the University, and/or electronically from the program staff to potential study participants (Appendix
B). The consent form was provided prior to the participant’s dissemination of the survey tool. Once the student read the consent form, they were provided the survey electronically or by paper to complete (Appendix C).

Data was cleaned prior to entering into SPSS for analysis. Surveys with missing data were removed from consideration, which brought the original 89 respondents to 53. Students who identified as White/Caucasian, a total of six, were removed from analysis bringing the total data set to 47. The student engagement categories were converted from nominal to scale measures. The manual conversion was made because the measure was on a continuous scale of 1 to 5:

1 indicated the student never performed the behaviors during their time in the Trio program
2 indicated performed the behavior once a month
3 indicated twice a month
4 indicated once a week, and
5 indicated that the behavior was performed every class/session.

Presentation of the Results

The problem is not knowing the impact of student engagement, if any, on GPA of a particular student support program at a land-grant, research one institution in the southeast. The purpose of this study is to learn about the relationship that high-impact practices have on the student first-year GPAs of first-generation college students who participate in the Trio program at this institution. The research questions assisted to understand this impact were: 1. What is the relationship between high-impact practices and GPA at the end of the first academic year of
students participating in Trio? 2. What is the relationship among HIPs, and GPA when controlling for background characteristics? The research questions are quantitatively designed, each with a different method of analysis.

Twenty-two student engagement items were identified to understand this phenomenon. The respondents who completed the student engagement portion of the survey tool were used to analyze this question with a population of 53 individuals. Seventy-four percent of the analyzed respondents were women. There were 85% of the respondents identified as Black or African American. The mean GPA for the group was 2.89 at the end of the first year of college in the program.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Demographic Characteristics of the Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
<td>Frequency</td>
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<tr>
<td>Ethnicity</td>
<td></td>
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<tr>
<td>Black/African-American</td>
<td>40</td>
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<tr>
<td>Hispanic/Latino(a)</td>
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</tr>
<tr>
<td>Asian</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Gender</td>
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</tr>
<tr>
<td>Female</td>
<td>35</td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
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</tr>
</tbody>
</table>

*Note. Total number analyzed was 47.*
Table 2

*Descriptive Statistics*

<table>
<thead>
<tr>
<th>HIPs</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Engagement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group study</td>
<td>3.09</td>
<td>1.176</td>
</tr>
<tr>
<td>Participated in tutor sessions</td>
<td>3.02</td>
<td>1.207</td>
</tr>
<tr>
<td>Attended academic support programs**</td>
<td>2.77</td>
<td>1.255</td>
</tr>
<tr>
<td>Informal conversations with f/s</td>
<td>3.28</td>
<td>1.117</td>
</tr>
<tr>
<td>Met with f/s</td>
<td>3.23</td>
<td>1.088</td>
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<tr>
<td><strong>Active &amp; Collaborative Learning</strong></td>
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<td></td>
</tr>
<tr>
<td>Asked questions</td>
<td>2.87</td>
<td>1.393</td>
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<tr>
<td>Made class presentation</td>
<td>1.77</td>
<td>1.255</td>
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<tr>
<td>Worked with Trio students</td>
<td>1.91</td>
<td>1.332</td>
</tr>
<tr>
<td>Worked with Trio students outside</td>
<td>1.83</td>
<td>1.185</td>
</tr>
<tr>
<td>Tutored Trio students</td>
<td>1.49</td>
<td>.856</td>
</tr>
<tr>
<td>Worked with Trio students</td>
<td>1.66</td>
<td>1.089</td>
</tr>
<tr>
<td>Community-based service participation</td>
<td>1.81</td>
<td>1.296</td>
</tr>
<tr>
<td>Discussed ideas from readings or classes</td>
<td>2.60</td>
<td>1.313</td>
</tr>
<tr>
<td><strong>Engagement with Peers</strong></td>
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<tr>
<td>Participate in group</td>
<td>3.28</td>
<td>1.280</td>
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<tr>
<td>Chose to work</td>
<td>3.30</td>
<td>1.284</td>
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<tr>
<td>Activity</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>Got with classmates outside</td>
<td>3.23</td>
<td>1.220</td>
</tr>
<tr>
<td>Shared viewpoints</td>
<td>3.45</td>
<td>1.380</td>
</tr>
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</table>

**Quality of Effort**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquainted of different interests</td>
<td>3.57</td>
<td>1.211</td>
</tr>
<tr>
<td>Acquainted of different family bg</td>
<td>3.66</td>
<td>1.290</td>
</tr>
<tr>
<td>Acquainted of different race/ethnicity</td>
<td>3.70</td>
<td>1.284</td>
</tr>
<tr>
<td>Serious discussions from values</td>
<td>3.19</td>
<td>1.313</td>
</tr>
<tr>
<td>Serious discussions of different race/ethnicity</td>
<td>3.30</td>
<td>1.250</td>
</tr>
</tbody>
</table>

*Note. N=47. Mean GPA was 2.8819 with a .75797 SD. Bg means background. f/s means faculty/staff.*

**Research Question One.** Pearson’s correlation was performed to examine the relationship between HIPs and GPA. Most of the twenty-two items considered were determined to have no statistical significance on the relationship between HIPs and GPA. However, two of the twenty-two engagement items demonstrated practical significance: a.) attended academic support programs and b.) worked with Trio students outside the program to prepare assignments. The findings indicate that an increase in the activities of attending academic support programs and working with Trio students outside of the program to prepare assignments were moderately correlated with a decrease in student GPA at the end of the first-year of college. Other student engagement characteristics of this study did not indicate a statistical significance.

There were five assumptions to be tested in the appropriate use of Pearson’s correlation for a value result. Two continuous variables and were found paired, the HIPs and GPA. A linear relationship exists between HIP and GPA. No significant outliers were present, and the bivariate
normality assumption was satisfied. The variables were not normally distributed, as assessed by Shapiro-Wilk’s test (p < .05). Regardless, a Pearson’s correlation was run as the test was robust enough to withstand deviations from normality. A monotonic relationship was found.

Table 3

<table>
<thead>
<tr>
<th>Engagement Characteristic</th>
<th>Pearson’s Correlation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Engagement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group study</td>
<td>-.097</td>
<td>.516</td>
</tr>
<tr>
<td>Participated in tutor sessions</td>
<td>-.287</td>
<td>.050</td>
</tr>
<tr>
<td>Attended academic support programs**</td>
<td>-.299</td>
<td>.041</td>
</tr>
<tr>
<td>Informal conversations with f/s+</td>
<td>.082</td>
<td>.584</td>
</tr>
<tr>
<td>Met with f/s</td>
<td>-.148</td>
<td>.319</td>
</tr>
<tr>
<td><strong>Active &amp; Collaborative Learning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked questions+</td>
<td>.011</td>
<td>.943</td>
</tr>
<tr>
<td>Made class presentation</td>
<td>-.015</td>
<td>.921</td>
</tr>
<tr>
<td>Worked with Trio students</td>
<td>-.152</td>
<td>.307</td>
</tr>
<tr>
<td>Worked with Trio students outside**</td>
<td>-.353</td>
<td>.015</td>
</tr>
<tr>
<td>Trio peer tutoring+</td>
<td>.069</td>
<td>.644</td>
</tr>
<tr>
<td>Worked with Trio students</td>
<td>-.149</td>
<td>.318</td>
</tr>
<tr>
<td>Community-based service participation</td>
<td>-.041</td>
<td>.783</td>
</tr>
<tr>
<td>Discussed ideas from readings or classes</td>
<td>.145</td>
<td>.330</td>
</tr>
<tr>
<td><strong>Engagement with Peers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participate in group</td>
<td>-.244</td>
<td>.098</td>
</tr>
</tbody>
</table>
|                      | Corr | P  
|----------------------|------|-----
| Chose to work        | -.134| .368|
| Got with classmates outside | -.034| .819|
| Shared viewpoints+    | .016 | .914|
| **Quality of Effort** |      |     |
| Acquainted of different interests | -.132| .377|
| Acquainted of different family bg | -.103| .492|
| Acquainted of different race/ethnicity+ | .051 | .732|
| Serious discussions from values | -.157| .292|
| Serious discussions of different race/ethnicity | -.079| .596|

*Note. Sample was of 47 Trio students who identified as a race other than White/Caucasian. Correlation is significant at the 0.05 level (2-tailed). **Indicates statistical significance. +Indicates practical significance. f/s means faculty and staff members. Bg means background.

**Research Question Two.** The second research question used hierarchical multiple regression to analyze the data. The primary goal to use hierarchical multiple regression was to determine the proportion of the variation in the student’s GPA was explained by the addition of gender, and then race to the model. A hierarchical multiple regression analysis was performed to determine if the addition of gender and then race improved the prediction of GPA beyond HIPs alone. Each variable was evaluated on whether the variables of gender and race were statistically significant to predict GPA beyond the high-impact engagement and analyzed by reviewing three models, the comparison of multiple regression models. The hierarchical multiple regression models were then compared. Model 1 indicated that each of the twenty-two student engagement characteristics was analyzed for the GPA outcome of the student. Model 2 added gender to the analysis of student engagement and GPA. Finally, Model 3 compared the student engagement factors, gender, and race into the analysis, with the dependent variable of the student’s GPA at
end of the first academic year in the program. The model summary included the $R^2$ measure to interpret the hierarchical multiple regression, the variation in the GPA explained by the HIPs, gender and race variables to determine the statistical significance.

First, Model 1 analyzed HIPs to predict GPA. The $R^2$, the variation in GPA that was explained by the high-impact practices, was .598 with a p-value of .125, which was not statistically significant. Then, Model 2 analyzed HIPs and gender to predict GPA. Specifically, when gender was added with the HIPs, did the addition of this variable explain the difference in the student’s GPA? The results indicated that the addition of gender in the analysis, from .598 to .043, an increase of about 4%, was due to the inclusion of the gender variable to the HIPs analysis. However, the statistical significance was not significant at .110. The addition of gender to the prediction of GPA did not lead to a statistically significant increase, but an increase in $R^2$ of .043, $F(1, 23) = .043, p < .110$.

Finally, Model 3 determined if the addition of the student’s background characteristics of gender and then race improved the prediction of the student’s GPA beyond student engagement characteristics alone. The results indicate that the use of HIPs, gender, and race to predict GPA was not statistically significant. The change in $R^2$ is no more than the difference of the addition of gender (.043) and race (.021) of .259. In other words, with HIPs and gender, the addition of race to the prediction of GPA led to no statistically significant increase in $R^2$ of .662, $F(1, 22) = 1.345, p = .259$. However, as variables were added (i.e., $R^2 = .598$, .641, and .662 respectively) the better the prediction of the student’s GPA.

A hierarchical multiple regression was run to determine if the addition of the student’s background characteristics of gender and then race improved the prediction of GPA beyond HIPs
alone. The full model of HIPs, gender, and race to predict GPA was not statistically significant, but an increase of \( R^2 \) of .662, \( F(1, 22) = 1.345, p = .259 \); adjusted \( R^2 = .293 \). The addition of gender to the GPA lead to a no statistical significant increase, but some increase in \( R^2 \) of .043, \( F(1,22) = .043, p = .110 \).

The eight assumptions of a hierarchical multiple regression (HMR) have been met in order to use this test. Regarding the study design, the variables must meet the HMR standards. The dependent variable, GPA, was a continuous variable. Multiple continuous independent variables, HIPs, were present as well as categorical independent variables, gender and race. The data fits the regression model are the remaining six assumptions. The Durbin-Watson tests that the errors were not independent. The range is a 0 to 4, seeking a value close to 2. It was accepted that the errors are independent as tested by a Durbin-Watson statistic of 2.053. The partial regression plots showed a linear relationship between GPA and each independent variable of HIPs, race and gender. Homoscedasticity was established by visual review of a standardized residuals versus unstandardized predicted values. Checking for multicollinearity, none of the independent variables established correlations that were greater than 0.7. Also, the tolerance value is not less than 0.1. Finally, no outliers were present as the standardized deleted residual values were ±3 or below -3 standard deviations. A number of leverage values greater than the “safe” 0.2 were found. Basically, all but six data points were beyond the “safe” value.

**Summary**

Chapter four provided descriptive, correlational, and linear regression analysis. This quantitative study used Pearson’s Correlation to analyze the association of student engagement and the GPA of students after their first academic year with the program at the southeast
institution. The second research question used hierarchical multiple regression to analyze the relationship of student engagement, GPA and the background characteristics of the student, specifically gender and race. The study used data from a survey tool completed by 2012-2018 participants of this specific program. For research question one, Pearson’s correlational analysis indicated three of the twenty-two student engagement characteristics demonstrated a negative impact of the use of study groups, tutoring sessions, and working with others in the program on a project. In research question two, the hierarchical multiple regression analysis indicated no statistical significance with the addition of gender and race to predicting a student’s GPA.
Chapter 5: Discussion

Chapter 5 summarizes the major research findings of this study. Included in this chapter were the overview of the study, limitations, implications of the study for similar student support services, conclusions, final thoughts and reflections from the field, and the recommendations for future research.

Summary of Major Research Findings

The purpose of this study was to investigate the relationship between student engagement and grade point average of students who were involved with a support program at the end of their first academic year of college. A qualitative, non-experimental, cross-sectional design was used to examine the connection of GPAs at the end of their first year of college with high-impact practices in the Trio program. The study included information about time students spent engaging in different activities as a part of the Trio program. Self-reported data from students involved with the program from 2012 to 2018 were used to understand the experiences of first-generation students of color who attend PWIs. The two research questions that guided this study related to the association between HIPs (high-impact practices) and student GPA, and the relationship between HIPs, GPA, as well as student background characteristics.

Research question one explored the association between high-impact practices and student grade averages at the end of the first year of participation in a college support program. This question was investigated using Pearson’s correlation. Two HIPs were found to have a significant, yet negative impact on the student’s grade point average. One finding was that the more a student increased their attendance in academic support programs, the worst their GPA
became. The other finding suggested that as a student worked with other Trio students outside of the program to prepare assignments, the more their GPA decreased.

Research question two, using hierarchical multiple regression, examined the relationship between high-impact practices, grade point averages, and background characteristics of the student at the end of the first year of participation in a college support program, the proportion of the student’s GPA variation was explained by HIPs, gender, or race. The analyses indicated that there was not a statistical significance in predicting a student’s GPA related to high-impact practices (HIPs), gender and HIPs, nor the combination of HIPs with gender and race additions to the analysis.

**Discussion of the Findings**

Research question one analyzed the correlation of twenty-two high-impact practices with student GPA after the first academic year at a southeastern US, research one institution. Among the twenty-two HIPs, two had a moderate correlation with student GPA: attendance in academic support programs (-.299) and as the students worked with other Trio students to prepare assignments (-.353). A few possible explanations could be found regarding the negative correlation results.

Contrary to what was found in the literature review, when students in this study attended academic support programs, this correlated negatively to lower GPA. A possible explanation of this finding could be that the academic rigors of an institution can be difficult, particularly for first-generation college students of color, as they navigate college on their own even while taking classes. For this particular study, the findings may reflect that a review about the quality or design elements of this student support program may be warranted. It is well
accepted that students benefit from support programs when they are designed and implemented intentionally. Perhaps this support program may not reflect the lived experiences of FGCSOC. Kahu’s (2013) conceptual framework of engagement acknowledges that student engagement and enthusiasm for learning are influenced by multiple factors that can eventually affect learning, cognition, and behavior: political and social contexts (sociocultural), the structural and psychosocial influences of the university, the student and the relationships within campus, as well as the proximal and distal consequences of the academic and social life of a student. Given that Kuh’s framework of student engagement was not solely about student behavior, but also the institutional strategies to provide support, the current study’s analysis and findings were limited in the ability to capture the entirety of Kuh’s conceptualization within the context of the sampled program. A broader review of the support program may capture best practice information that may yield different results.

Another explanation of the first finding was that data was not retrieved about the specific time spent on tasks. Kuh (2009) defined student engagement as “the time and effort students devote to activities that [was] empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities” (p. 683). Qualitative knowledge about the time a student spends involved in a specific activity and how that time was spent may clarify how the time on a task contributes to a positive engagement outcome.

For example, a student who wanted to get into the medical profession was required to take courses like biology and chemistry. Many students, though highly intelligent, needed the help of a third party, like an academic support program, to assist them in interpreting course content. Academic support programs promote student learning by providing critical scholastic
support to students such as tutoring sessions, summer learning experiences, and supplemental courses. These services were generally provided without additional out of pocket expenses to the student. However, these services tend to only be available during traditional business hours, Monday through Friday, 8:00 a.m. to 5:00 p.m. For first-generation college students of color who were likely to have jobs to help support loved ones, finding time to seek academic help through support services posed a significant challenge.

FGCSOCs may encounter obstacles that limit their ability to take full advantage of academic support programs related to finding other students and staff who relate to their perspective and be a familiar face to connect with on campus. The staff members at predominately White institutions are generally White men who may not be able to connect interpersonally with FGCSOC. Students may not use academic support services regularly, thereby forfeiting the full benefits of academic support programs. Exploring more holistic and relevant program designs as well as the time and effort students spend on engagement activities are opportunities for future study possibilities.

For the second finding, several factors may explain why working with other Trio students outside of the program tended to negatively impact the student’s grades. One explanation was that the students may have used the time to socialize rather than focus on the assigned task. Often, first-generation college students of color who came from low-income backgrounds must work in order to make financial ends meet while also enrolled as full-time students (Choy, 2001; Nunez & Cuccaro-Alamin, 1998). Students who work reduces the time such students engage in college-related activities (Pratt, Harwood, Cavazos, & Ditzfeld, 2017). Working could eventually hinder the student’s feelings of connection with their peers and impede their social integration on
campus. With additional academic and social pressures, when such FGCSOC come together, their convening creates opportunities to share experiences and gain support from one another rather than focus on class assignments. The time together may be used primarily to support one another in non-academic ways. A focus may have shifted from the academic task at hand to life of a college student and the rigorous demands of the academic course work transition.

Another possible explanation is that students, who possess a limited understanding of the course material, may provide incorrect information to one another. This is not intentional as students often study together, but may spread content misinformation, nonetheless.

Among the twenty-two high-impact practices, those that correlated most positively with student GPAs were: students who had informal conversations with faculty/staff (p-value of .082); students who asked questions in class (.011); students who participated in peer tutoring (.069); students who had a sense of shared viewpoints (.016); and students who were acquainted with those of different race/ethnicity (.051). Although these items were not statistically significant, based on the literature, these particular HIPs hold practical significance to the academic experiences of FGCSOC who are more academically engaged on the college campus.

The main ingredients of a student’s healthy self-esteem and well-being included are belongingness, competence, and security (Hart 2014; Pratt, Harwood, Cavazos, & Ditzfeld, 2017). These five items support what constituted a sense of belonging for FGCSOC who matriculated through college. Students tend to feel comfortable enough to ask questions, confident enough to help their peers, willingness to share their viewpoints with others or course readings, and also had space where they were acquainted with those who have different origins of race and ethnicity other than themselves. Programs like Trio help students promote their
mental well-being by helping them feel cared for, cultivating a sense of belonging, preventing and remediating distress, and helping the student to become resilient (Becker, Shelbe, Romano, & Spinelli, 2017).

Research question two utilized hierarchical multiple regression to explore any relationships among student GPA based on HIPs, gender, and race. These factors, HIPs with the addition of gender and race, were not found to be statistically significant to predict the FGCSOC’s GPA $R^2$ of .662, $F(1, 22) = 1.345, p = .259$. Eighty-five percent of the participants in this study identified as African-American or Black, and females accounted for over seventy-four percent, creating a very homogeneous group racially and in terms of gender. Given the homogeneity of the group, this may help to explain why no statistical significance was found while examining the second research question. However, as the student gender and race were added to their high-impact practices for the statistical model, student GPA did not have a statistical impact. Also, there may be elements and factors that were beyond the scope of this study, that if included, may detect differences or yield significant statistical findings.

**Limitations of the Study**

The use of an electronic survey posed a methodological limitation to the study. Web-based surveys with low response rates was a common concern with participants often citing problems with spam mail, technological problems, and security concerns (Creswell, 2012). After several weeks of electronic survey solicitation and reminders, the results yielded very few respondents, $n = 12$. Two strategies were then implemented to help overcome the limitations of survey use in the study: visiting weekly program meetings and events, and tabling at a common
student gathering place on campus, where paper surveys were distributed. The additional strategies yielded higher response rates with \( n = 77 \) respondents.

The region in which this research was conducted experiences a concentration of poverty, reportedly having the highest poverty rates and mostly rural communities in the United States (Nave, 2017). Furthermore, the sampled institution does not require students to have a computer. The lack of such resources and computer mandate for students further limited participant access to complete the electronic survey. For first-generation college students of color who may lack financial resources, investing in an expensive though useful product such as a computer or tablet in light of the expenses of tuition, rent, and basic moving expenses, may make the purchase of a computer lower on the priority list. Therefore, access to computers at home or internet service may have contributed to the minimal amount of electronic survey response rates. The tabling events took place in high traffic areas for students at this institution, allowing participants to engage directly with peers and the survey without delay.

The population used for this study was homogeneous in several ways. A single program at an institution in the southeastern United States was used as the target population. The institution is a predominately White, research one, large, public, higher education institution. The population also captured significant traditionally marginalized members. The population was 85% African-American/Black and over 74% identified as female. Disentangling the intersection of the multiple intersecting identities to isolate the impact of the first-generation college student of color status could not be done. Data was captured at one period of time. Perceptions could change with individuals involved with the study over time. The full range of perspectives among
first-generation college students of color was beyond the scope of this study, thereby limiting generalizability of the findings.

The data analysis was only performed on the responses from the student engagement portion of the study. The Survey of Program Participant Experiences had components of student engagement, but also institutional support and sociocultural characteristics. Most of the sample population did not thoroughly complete the survey causing the researcher to remove these portions from the analysis. Analyzing complete student data provided from the survey may provide further understanding of the student experiences related to student engagement.

**Implications of the Study**

The findings of this study have implications to better understanding the academic and student support needs of first-generation college students of color (FGCSOC) who attend PWI and engage in support programs at such institutions. Professionals who develop programs to serve first-generation college students of color could use this knowledge to intentionally craft support programs that are more effective in serving FGCSOCs. Rather than creating program requirements, we hope will keep a student engaged, we have evidence-based data to further fine-tune services that are provided to this unique student demographic.

The conceptual framework for this study stemmed from the work on student engagement by George Kuh and Ella Kahu. Kuh’s student engagement concepts centered on time and effort of student’s behaviors toward activities and how the institution encouraged students to participate in purposeful activities (Kuh, 2009). This concept of student engagement makes logical sense about the more time spent on any activity and the quality of the effort can improve a student’s academic outcome like grades. Kuh’s definition of engagement also included how the
institution allocates their resources and curriculum to encourage student participation in activities that support persistence toward graduation. Kuh noted that students of color reported expending more time and energy on tasks but reported fewer academic benefits of those efforts. These activities, known as high-impact practices, demonstrated positive academic progress for the majority of students at predominately White and minority-serving institutions; however, did not concentrate their findings on underrepresented student populations at such institutions. Kuh’s theory has a positive link to student academic outcomes but does not encapsulate the complete story of the student experience. Specifically, race and first-generation characteristics were not included in Kuh’s theory and warranted further exploration into the role a student’s sociocultural identity may contribute to the motivation a student has to engage in the learning environment. Kahu’s concepts focused on not only a student’s behavior related to student engagement and the institutional supports related to engagement, but also on how the student’s lived experiences impact their academic and social outcomes (Kahu, 2013). The positive correlations for practice related to the relationship connections of the student (e.g., shared viewpoints, peer tutoring of other program students, asking questions in an active and collaborative learning environment), which connects to Kahu’s framework of student engagement. Kahu builds on Kuh’s work involving student engagement behaviors and the institution’s high-impact activities, like learning communities and summer intensive programs, in addressing issues more focused on psychological, socio-cultural and behavioral factors. This study sought to integrate student engagement as a multi-faceted two-way street with the institution’s influence, the student’s behaviors and involvements, and the unique life experiences of the student as a first-generation college student of color.
A survey tool that incorporated student engagement, institutional support and the sociocultural nature of the student was not found. Therefore, this research resulted in the development of an instrument, the Survey of Program Participant Experiences, forged from four different survey tools: the Office of Institutional Research Planning and Support (OIRPS) at the University of Arizona and a longitudinal survey developed by the research team (Cabrera, Miner, & Milem, 2013); the National Survey of Student Engagement (NSSE) (Pike, Kuh & McCormick, 2011); Our Student Engagement Survey (Bonet & Walter, 2016); and the College Student Experiences Questionnaire (Roccini, 2011) to address relevant student engagement framework.

The Survey of Program Participant Experiences tool was adapted to focus on student engagement factors (academic engagement, active & collaborative learning, engagement with peers, and quality of effort), institutional conditions (academic effort and support, student-faculty interaction, diversity experiences, and supportive campus environment), and sociocultural levels of strength (social self-concept, academic self-concept, and interactions with peers across race/ethnicity). All four surveys were used to develop the student engagement section of the Survey of Program Participant Experiences related to the student’s behavior that was analyzed. Use of the NSSE to examine the institutional conditions related to academic effort and support, student-faculty interaction, diversity experiences, and the supportive campus environment could help institutions identify their level of engagement with the institution. Finally, the components of the OIRPS and the New Start Summer Program focused on the indirect impacts of NSSE. Institutions could use engagement knowledge to understand how engagement is constructed, learn how to measure high-impact activities, and create opportunities for every student to have a chance to participate in these purposeful activities regardless of their backgrounds. Creating a
survey tool to include the holistic experiences of underrepresented students in support programs at PWIs would further aid to ensure support programs to provide evidence driven data to support the resources and strategies toward the graduation of FGCSOC.

This study informed how program developers design their support programs for FGCSOC. As higher education educators, we often focus on the behaviors of a student that lead to their academic successes, primarily related to GPA. Yet, we also know that student success is an integration of academic and social components. GPA or standardized test score only captures a segment of a student’s potential and success in college and is not an all-encompassing indicator of student success. As institutions prepare for the increased arrival of first-generation college students of color, a resource like a survey tool that incorporates the full extent of the student experience could help institutions tailor their support efforts for these students, further targeting student engagement endeavors. Being a student affairs educator for over twenty years, this researcher has come to realize that student behavior has a significant role to play toward a student’s academic success, but also that the institutional environment that influences a student’s desire to thrive also played a significant part as well. Multiple strategies must be implemented to adequately engage FGCSOC in PWIs (Davis, 2010; Quaye, Griffin, & Museus, 2015). Crafting environments where students who are marginalized feel welcomed, cared for, and valued are just as important as the content of the coursework. The financial support and reassurance of the institution of external factors educators provide and ensure support especially in lean financial times or as student outcomes are questioned. Protecting first-generation student centers meeting spaces, funding for support activities, mentor support, and investment in peer tutoring initiatives can enhance the student experience at the institution, subsequently impacting student
engagement, motivations, and outcomes. Findings from this research may help decision makers realize the importance of specialized student support programs at predominately White institutions that can improve retention and persistence rates at these institutions.

As a result of this study, five high-impact practices (HIPs) stand out as possible positive correlations of student engagement that warrant further explorations: informal conversations with faculty and staff, peer tutoring of other program students, shared viewpoints, asking questions of one another, and acquainted with those of a different race/ethnicity. The strongest student engagement factor was the quality of effort item on the Survey of Program Participant Experiences. Creating spaces to allow informal student interactions to take place is important for the positive development for FGCSOC. Fostering environments where peers teach and support one another is vital for their engagement and contributes to their overall student success. These environments could be student centers, Unions, office space, or residence halls dedicated to FGCSOC gathering opportunities. These safe and home-like environments provide areas for students to gather, eat and commune together, to connect with people who “get” them, where a minimal explanation of experiences and home life is needed.

The common thread of the five standout HIPs was the connection and collaboration of working with others more like themselves. Working with peers, staff, and faculty who have similar experiences and backgrounds as the FGCSOC establishes opportunities for validation of their viewpoint of the world around them. As FGCSOCs become comfortable with the people around them on campus, they discuss pressing issues and confide in struggles with one another, allowing others to provide support, encouragement, and resources as possible.
Student affairs educators often invest significant time into the first six weeks of the academic year knowing that students tend to make a decision about whether they will continue at an institution within these first critical weeks. Programs designed to build critical peer relationships at the beginning of the year includes activities and extra-curricular events like summer or pre-fall orientation sessions, team building, and experiences targeting the transition to college stage. Educators can concentrate their efforts to prepare sophomore or higher level FGCSOCs to mentor and tutor their first-year peers. Not only serving as academic tutors but also making a personal connection with the student to ensure their basic needs are met (Strayhorn, 2012). These development efforts could help more veteran students to serve as better supports and resources for one another.

For educators who do not have a first-generation college student background, understanding the needs of the FGCSOC population is important in order to serve such students effectively. Providing workshops about the needs of FGCSOC to faculty and staff working with this demographic aid to meet the basic needs of these students. Workshops could include FGCSOC to overcome “imposter phenomenon”, the most common anxieties students face and how to combat the problems, the importance and need for informal public spaces on campus, specialized advising needs, instruction in study skills, learning the differences between rates of dropout, retention and graduation rates, as well as understanding the importance of the university 101 course (Davis, 2010).

In order to reflect the commitment to recruit and retain diverse members, hiring diverse staff members is another approach to augment the cultural competence of student affairs educators, particularly when serving FGCSOC (Morton-Miller, 2013). Students want and need to
see people who look like themselves who can be role models. Visible and diverse staff members project a silent, but notable message they too can make it through college and have a successful career. Seeing evidence in the student’s surroundings of people who look like them and who can provide insight, support, and strategies towards graduation serve as a turning point for students of colors’ retention at a PWI. Setting high expectations and offering a high level of support is critical for the persistence of students of color (Watson, Terrell, Wright, and Associates, 2002).

Educational policymakers who work at public institutions, where the majority of the first-generation college students are likely to enroll, also have a role to play toward setting the stage for FGCSOC success. Policymakers can provide funding to support programs focused on the needs of this group. Retention indicators such as a student’s sense of belonging must be incorporated into student success factors other than GPA (Strayhorn, 2012). Co-curricular or extracurricular student engagement also contribute to student success through the development of student social and cultural capital (Andersen, 2016; Kuh, Kinzie, Schuh, & Whitt, 2010; Stuber, 2011). Programs that demonstrate FGCSOC success should be maintained and supported by institutional leadership, as well as more widely acknowledged for contributing to overall student success. Although modeled from a deficit mindset of student who lack resources or access, programs like Trio contribute to student success beyond GPA indicators. Perhaps centering programs around a common purpose, such as a capstone project that gives back to the community in some way, is a better basis to develop FGCSOC student success initiatives rather than from a remedial or deficit-based perspective.
Conclusions

The purpose of this study was to examine a student support program dedicated to the success of first-generation college student of color and the impact on student GPA. This study also served to explore the predictive nature of the student’s GPA based on high-impact practices, gender, and race at a predominately White institution in the southeastern United States. The scope of the study extended to student outcomes at the end of the first year at a university. Recommendations for practice in higher education are centered on helping students to find others who share in their FGCSOC status and other students who are similar to themselves in order to learn how to work through the challenges of academic rigor. Institutions can provide training and workshops for faculty and staff, especially for those who do not have similar experiences as FGCSOC. Such workshops equip staff and faculty to address and serve FGCSOC students to meet their unique needs. Finally, recommendations for educators who work with this population is to use success indicators related to retention other than GPA to qualify student success.

Initiatives beginning prior to a student’s enrollment in college serve to positively influence FGCSOC to navigate the collegiate system and support their academic endeavors socially and academically (Coffman, 2011).

The analytical scope of the study was limited to student engagement. Focusing on the other holistic nature of the student’s experience and background warrant further exploration with this population in future research studies. Given that this study captured the end of the first-year experience, it is recommended that future studies examine the student experience and outcomes beyond the student’s first year of college. Another recommended follow up to this study is to
track these participants to examine if they graduated or explored another occupational or career options and what supported them to persist.

Summary

Chapter five discussed the major findings in this study and explored the relevance of the results. A summation of the major findings was stated of each research question. First, there were two statistically significant negative correlations found and discussed. Second, no statistically significant prediction was found of a student’s GPA related to HIPs, gender, and race. However, five high-impact practices stood out that warrant further study in how FGCSOC could develop such practices in ways to enhance their academic and social experiences during their college matriculation: students who had informal conversations with faculty/staff, students who asked questions in class, students who participated in peer tutoring, students who had a sense of shared viewpoints, and students who were acquainted with those of different race/ethnicity.
References


https://www.merriam-webster.com/dictionary/microaggression

https://www.fullerton.edu/analyticalstudies/_resources/pdfs/CSRDE2013_hip_moon_et_al.pdf


Strayhorn, T. L. (2012). *College students’ sense of belonging: A key to educational success for*


Appendix A: Completed “Request For Review The Institutional Review Board For The Protection Of Human And Animal Subjects”
MEMORANDUM

DATE:       June 22, 2018

TO:         Ms. Deiderie Allard, M.Ed.

VIA:        Dr. Sophie Maxis
            Leadership, School Counseling & Sports Management

FROM:       Dr. Jennifer Wesely, Chairperson
            On behalf of the UNF Institutional Review Board

RE:         Declaration of Exempt Status for IRB#1230760-2:
            “First-Generation College Students Of Color’s Success at Predominantly
            White Institutions: Exploring the Influence of Student Engagement in a
            High-Impact Program”

Your project, “First-Generation College Students Of Color’s Success at Predominantly White Institutions:
Exploring the Influence of Student Engagement in a High-Impact Program” was reviewed on behalf of the UNF
Institutional Review Board and declared “Exempt” Category 2. Based on the UNF IRB Standard Operating
Procedures regarding exempt projects, the UNF IRB no longer reviews and approves exempt research according
to the 45 CFR 46 regulations. Projects declared exempt review are only reviewed to the extent necessary to
confirm exempt status.

Once data collection under the exempt status begins, the researchers agree to abide by these requirements:

- All investigators and co-investigators, or those who obtain informed consent, collect data, or have access
to identifiable data are trained in the ethical principles and federal, state, and institutional policies
governing human subjects research (please see the FAQs on UNF IRB CTI Training for more
information).

- An informed consent process will be used, when necessary, to ensure that participants voluntarily
consent to participate in the research and are provided with pertinent information such as identification
of the activity as research; a description of the procedures, right to withdraw at any time, risks, and
benefits; and contact information for the PI and IRB chair.

- Human subjects will be selected equitably so that the risks and benefits of research are justly distributed.

- The IRB will be informed as soon as practicable but no later than 3 business days from receipt of any
complaints from participants regarding risks and benefits of the research.

- The IRB will be informed as soon as practicable but no later than 3 business days from receipt of the
complaint of any information and unexpected or adverse events that would increase the risk to the
participants and cause the level of review to change. Please use the Event Report Form to submit
information about such events.
- The confidentiality and privacy of the participants and the research data will be maintained appropriately.

While the exempt status is effective for the life of the study, if it is modified, all substantive changes must be submitted to the IRB for prospective review. In some circumstances, changes to the protocol may disqualify the project from exempt status. Revisions in procedures or documents that would change the review level from exempt to expedited or full board review include, but are not limited to, the following:

- New knowledge that increases the risk level;
- Use of methods that do not meet the exempt criteria;
- Surveying or interview children or participating in the activities being observed;
- Change in the way identifiers are recorded so that participants can be identified;
- Addition of an instrument, survey questions, or other change in instrumentation that could pose more than minimal risk;
- Addition of prisoners as research participants;
- Addition of other vulnerable populations;
- Under certain circumstances, addition of a funding source

To submit an amendment, please complete an Amendment Request Document and submit it along with any updated documents affected by the changes via a new package in IRBNet. If investigators are unsure whether an amendment needs to be submitted or if they have questions about the amendment review process, they should contact the IRB staff for clarification.

**Your study was declared exempt effective 06/22/2018** Please submit an Exempt Status Report by 06/22/2021 if this project is still active at the end of three years. However, if the project is complete and you would like to close the project, please submit a Closing Report Form. This will remove the project from the group of projects subject to an audit. An investigator must close a project when the research no longer meets the definition of human subject research (e.g., data collection is complete and data are de-identified so the researcher does not have the ability to match data to participants) or data collection and analysis are complete. If the IRB has not received correspondence at the three-year anniversary, you will be reminded to submit an Exempt Status Report. If no Exempt Status Report is received from the Principal Investigator within 90 days of the status report due date listed above, then the IRB will close the research file. The closing report or exempt status report will need to be submitted as a new package in IRBNet.

**CITI Training for this Project:**

<table>
<thead>
<tr>
<th>Name</th>
<th>CITI Expiration Date</th>
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<tbody>
<tr>
<td>Ms. Allard</td>
<td>12/05/2018</td>
</tr>
<tr>
<td>Dr. Maxis</td>
<td>04/22/2022</td>
</tr>
</tbody>
</table>

All principal investigators, co-investigators, those who obtain informed consent, collect data, or have access to identifiable data must be CITI certified in the protection of human subjects. As you may know, CITI Course Completion Reports are valid for 3 years. The CITI training for renewal will become available 90 days before your CITI training expires. Please renew your CITI training when necessary and ensure that all key personnel maintain current CITI training. Individuals can access CITI by following this link: http://www.citiprogram.org/. Should you have questions regarding your project or any other IRB issues, please contact the Research Integrity Unit of the Office of Research and Sponsored Programs by emailing IRB@unf.edu or calling (904) 620-2455.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within UNF's records. All records shall be accessible for inspection and copying by authorized representatives of the department or agency at reasonable times and in a reasonable manner. A copy of this memo may also be sent to the dean and/or chair of your department.
MEMORANDUM

DATE: November 9, 2018

TO: Ms. Deiderie Allard, M.Ed.

VIA: Dr. Sophie Maxis
      Leadership, School Counseling & Sports Management

FROM: Dr. Jennifer Wesely, Chairperson
      On behalf of the UNF Institutional Review Board

RE: Declaration of Exempt Status for IRB#1230760-3:
    “First-Generation College Students of Color’s Success at Predominantly White
    Institutions: Exploring the Influence of Student Engagement in a High-Impact Program”

The Amendment Request submitted for your above-referenced study has been reviewed on behalf of the
UNF Institutional Review Board and has been approved. This amendment does not impact the original
classification of this study as “exempt, category 2.”

Approved modifications include the following:

- Addition of a financial incentive for survey participants
- Revised participant invitation
- Revised informed consent form
- Revised survey tool
- Removal of pilot study from the protocol

Please be advised that any subject complaints, unanticipated problems, or adverse events that occur are
to be reported to the IRB as soon as practicable, but no later than 3 business days following the
occurrence. Please use the Event Report Form to submit information about such events.

While the exempt status is effective for the life of the study, any substantive changes must be submitted
to the IRB for prospective review, including personnel changes. In some circumstances, changes to the
protocol may result in alteration of the IRB review classification.

Should you have questions regarding your study or any other IRB issues, please contact the Research
Integrity Unit of the Office of Research and Sponsored Programs by emailing IRB@unf.edu or calling
(904) 620-2455.
Appendix B: Invitation to Participants

Principal Investigator: Deiderie (Dei) Allard, M. Ed.
Dissertation Chair: Dr. Sophie Filibert

Greetings, thank you for taking the time to respond to this survey. My name is Dei Allard and I am a doctoral candidate at the University of North Florida in the College of Education and Human Services. Under the direction of Dr. Sophie Filibert, I am currently embarking on research for my dissertation. I invite you to participate in a study entitled “Participant Experience Survey”. Your participation is completely voluntary; you may withdraw at any time during the process. There are no foreseeable risks, direct benefits, or compensation for participating in this study. I will treat responses as anonymous and will not disclose your name as a participant. The survey contains approximately 45 questions and should take less than 30 minutes to complete. I intend to share my findings in my dissertation publication.

Purpose of the Research
The purpose of this study is to examine the impact of a program dedicated to the success of underrepresented, first-generation, and first-time, first-year students. The study of a program dedicated to underrepresented student success can affect the services and resources provided, and ultimately influence the level of engagement in first-generation college students of color at predominately White institutions.

You must be 18 years of age or older to take part in this research study. If you agree to take part in this study, you will participate to complete an online survey tool, which should take about 30 minutes. You will be asked to select your response on the choices given.

Benefits of the Study
There is not a direct benefit from participating in this study. The results from this study may benefit the field of higher education leaders and educators use the insight gained from the study to enhance the services that are provided to students. This knowledge may influence increased student access to services and development opportunities for you and your employees.

Risk of the Study
There are no foreseeable risks for taking part in this study. Your name and other identifying information will not be used nor revealed in any publication resulting from the study. Responses will be kept anonymous. Risks of harm is no greater than what is experienced on a daily basis as routine performances are carried out.

Alternative Treatments
There are no procedures or treatments associated with this study.

Confidentiality of Records
All information will be kept confidential. Any data in electronic form will be securely stored under password protection. Information gathered during this study will remain on a secure
server. Upon the completion of a study, UNF’s policy requires data be maintained for a period of three years at which time, they may be destroyed. Risk of compromising privacy, confidentiality, and/or anonymity will be maintained to the degree of the technology used.

Withdrawal
Your participation is completely voluntary; you may refuse to participate or quit at any time during the study without prejudice or penalty.

Costs and Compensation
There are no costs associated with participating in this study. You will also not be compensated for participating in this study.

Questions
If you have any questions or concerns about this study, you may contact Dei Allard at Redacted or Dr. Sophie Filibert at 904-620-1112, so.filibert@unf.edu. You may also contact The University of North Florida Institutional Review Board at 904-620-2498, irb@unf.edu with any concerns you may have concerning your rights as a participant.

Consent to Participate
This agreement states that you have read and understand the above information and been provided with a copy of this informed consent. Completing the survey indicates that you agree to participate in this study with the understanding that you may choose to stop participating at any time without prejudice or penalty.
Appendix C: Copy of Questionnaire

Survey of Program Participant Experiences

This 3-part instrument measures areas related to participant experiences in Trio programs which serve first-generation, low-income college students at predominantly White institutions: Student Engagement, Institutional Support, and Sociocultural Perceptions.

Please respond to each item with responses that most accurately represent your experiences during your participation in the program. Remember, this is not a test and there are no right or wrong answers.

STUDENT ENGAGEMENT

This part of the survey is designed to help us gain a better understanding of the kind of behaviors that relate to student engagement while participating in Trio programs.

Below is a list of behaviors that relate to student engagement in Trio Programs.

On a scale from 1 to 5, with 1 being “never” and 5 being “every class/session”, please indicate how often you performed the following behaviors during your time in the Trio program.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once a month</th>
<th>Twice a month</th>
<th>Once a week</th>
<th>Every class/session</th>
</tr>
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<td>1.</td>
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<td>9.</td>
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</tbody>
</table>

1. studied in groups outside of class
2. attended tutoring sessions to receive help on a specific course
3. attended academic support programs
4. had informal conversations with faculty and/or staff members
5. met with faculty and/or staff during office hours
6. asked questions in a [Trio] related event or contributed to discussions
7. made a class presentation for [Trio] students
8. worked with other [Trio] students on projects
9. worked with [Trio] students outside the program to
| STATUS | PREPARED A QUESTIONnaire for Tutors | APPLIED FOR OTHER [Trio] STUDENTS | WORKED with OTHER [Trio] STUDENTS ON PROJECTS during Class | PARTICIPATED in a community-based Project (e.g., Service LEARNING) as a part of the Trio Program | DISCUSSED ideas from your Readings or classes with others outside of the [Trio] session (students, family members, co-workers, etc.) | THE INSTRUCTOR required you to ParticIpate in Group or TEAMWORK Projects during Class? | CHOOSE to WORK with a CLASSMATE on an assignment? | GET TOGETHER with CLASSMATES outside of Class to study or work on class assignments | SHARED your viewpoints in class discussions? | BECAME acquainted with student whose interests were DIFFERENT from yours | BECAME acquainted with students whose family backgrounds (economic, social) was different than yours | BECAME acquainted with students whose race or ethnic background was different from your | HAD serious discussions with students whose philosophy of life or personal values were very different from you | HAD serious discussions with students whose race or ethnic background was different from yours |
|--------|-----------------------------------|---------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------|
|        |                                   |                                 |                                                          |                                                                                                |                                                                                                |                                                                                 |                                             |                                                                                 |                                                               |                                                              |                                                                      |                                                                      |                                                                                 |                                                                      |                                                                                 |
|        |                                   |                                 |                                                          |                                                                                                |                                                                                                |                                                                                 |                                             |                                                                                 |                                                               |                                                              |                                                                      |                                                                      |                                                                                 |                                                                      |                                                                                 |
|        |                                   |                                 |                                                          |                                                                                                |                                                                                                |                                                                                 |                                             |                                                                                 |                                                               |                                                              |                                                                      |                                                                      |                                                                                 |                                                                      |                                                                                 |
Below is a list of interactions related to attendance at your institution.

**On a scale from 1 to 5, with 1 being “never” and 5 being “every class/session”, please indicate how often you believe the institution supported the following interactions during your time in the Trio program.**

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Never</th>
<th>Once a month</th>
<th>Twice a month</th>
<th>Once a week</th>
<th>Every class/session</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. spending significant amounts of time studying and on academic work</td>
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<td>24. helping you cope with your nonacademic responsibilities (work, family, etc.)</td>
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<td>25. providing the support you need to thrive socially</td>
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<td>26. using email to communicate with an instructor or Trio staff member</td>
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<tr>
<td>27. talking about career plans with a faculty or staff member</td>
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<tr>
<td>28. discussing ideas from Trio with faculty or staff outside of program sessions</td>
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<td>29. receiving prompt feedback from faculty or staff on your performance (written or oral)</td>
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<tr>
<td>30. working with faculty or staff members on activities other than coursework (committees, orientation, student life activities, etc.)</td>
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<td>31. including diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments</td>
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<tr>
<td>32. having serious conversations with students of a different race or ethnicity than you</td>
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<tr>
<td>33. having serious conversations with students who are very different from you in terms of their religious believes, political opinions, or personal values</td>
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<tr>
<td>34. having contact among students from different economic, social and racial or ethnic backgrounds</td>
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<tr>
<td>35. I engaged in quality relationships with other students</td>
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<tr>
<td>36. I engaged with quality relationships with faculty or staff</td>
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</tr>
<tr>
<td>37. I engaged in quality relationships with administrative personnel and offices</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38. I believe there is a lot of racial tension on campus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39. I was guarded, cautious interactions with people from a different race/ethnicity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40. I felt insulted or threatened based upon my race or ethnicity</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>41. I heard faculty express stereotypes about racial/ethnic groups in class, meetings or workshops</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**SOCIOCULTURAL**

This part of the survey is designed to help us to better understand your perceptions of sociocultural factors during your time in the Trio program.

Below are items related to sociocultural factors during your time in the Trio program.

On a scale from 1 to 5, with 1 being “major weakness” and 5 being “major strength”, please indicate to what degree was your ability with the following skills during your time in the Trio program.

<table>
<thead>
<tr>
<th></th>
<th>Major weakness</th>
<th>Neither weak or strong</th>
<th>Major strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>42. Communication skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43. Leadership ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>44. Social self-confidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45. Ability to work cooperatively with diverse peers</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>46. Public speaking ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>47. Ability to discuss and negotiate controversial issues</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>48. Academic ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>49. Intellectual self-confidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>50. Writing ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Demographic Data

1. What was your cumulative GPA at the end of high school (or high school equivalence)? ____________________________

2. Please indicate the highest score earned for any of the standardized test that you took in order to apply for your institution.
   a. θ ACT: ___________

3. What semesters were you enrolled at your institution? ______________ (sliding scale fall 2012-spring 2018)

4. Please indicate the years in which you participated in the Trio program:
   a. θ 2017-2018
   b. θ 2016-2017
   c. θ 2015-2016
   d. θ 2014-2015
   e. θ 2013-2014
   f. θ 2012-2013

5. During the last year in which I was an active participant of the Trio program, my cumulative GPA on a 4.00 scale for the end of that Spring term was:
   a. (slide rating scale) ______________

6. During your time in the Trio program, indicate below where you lived:
   a. θ Campus owned residence
   b. θ Non-campus owned residence
   c. θ Other (please indicate): ____________________________

7. Indicate which of the following student experiences you participated in during your time in the Trio program:
   a. θ Learning programs or communities
      i. θ Living-learning community (specify which program): __________
      ii. θ Other learning program: ____________________________
   b. θ First year seminar
c. Writing-Intensive Courses

d. Collaborative Assignments & Projects

e. Undergraduate Research

f. Diversity/Global Learning

g. Service Learning or Community-Based Learning

h. Internships

i. Capstone Courses/Projects

8. My Gender is

a. Female

b. Male

c. Please indicate:_______________________

9. Based on biological/physical characteristics, I identify my race as:

a. Asian

b. Black/African descent

c. Hispanic/Latino(a)

d. White/Caucasian

e. Please indicate:__________________________
Appendix D: Copy of an Invitation to Participate in a Research Study

Principal Investigator:  Deiderie (Dei) Allard, M. Ed.
Dissertation Chair:        Dr. Sophie Filibert

Dear Prospective Research Participant:

My name is Dei Allard and I am a doctoral candidate at the University of North Florida in the College of Education and Human Services. Under the direction of Dr. Sophie Filibert, I am currently embarking on research for my dissertation. I invite you to participate in a study entitled “Survey of Program Participant Experiences”. The purpose of this study is to examine the impact of a program dedicated to the success of underrepresented and first-generation students. The study of a program dedicated to underrepresented student success can affect the services and resources provided, and ultimately influence the level of engagement in first-generation college students of color at predominately White institutions.

For this study, participants must be a current or former member of the program. You have been identified as a prospective research participant for this study because you meet the aforementioned requirements.

If you choose to participate in this study, your involvement will include taking part in an online questionnaire. The estimated time to complete the survey is 30 minutes. Unless otherwise noted, email correspondence will be used to contact you throughout the duration of the study.

Your participation is completely voluntary; you may withdraw at any time during the process. Please note, no personal identifiable information will be used to formulate or compose any data reports. Responses will be kept anonymous. For data security purposes, any data in electronic form will be securely stored under password protection. Information gathered during this study will remain on a secure server. Upon the completion of a study, UNF’s policy requires data be maintained for a period of three years at which time, they may be destroyed. There are no foreseeable risks, direct benefits, or compensation for participating in this study. By participating in this research study, the results from this study may benefit the field of higher education leaders and educators use the insight gained from the study to enhance the services that are provided to students. This knowledge may influence increased student access to services and development opportunities. If you choose to participate, please know that your time will be greatly appreciated.

Attached you will find the informed consent document. If you are willing to be a part of this study, please go to http://unf.co1.qualtrics.com/jfe/form/SV_difFNWyvkRq1eVL and complete the questionnaire.

The University of North Florida, Institutional Review Board has approved this research study and permission granted from Mississippi State University’s Office of Research Compliance. If
you have any questions regarding your rights as a participant, please contact the University of North Florida’s Institutional Review Board directly at 904-620-2498 or via email at irb@unf.edu. Should you have any questions or would like to participate, upon receipt of this letter, please contact me directly at Redacted or send an email to Redacted. You may also contact my dissertation chair, Dr. Sophie Filibert, at 904-620-1112 or send an email to so.filibert@unf.edu.

Thank you in advance for your interest and consideration.

Sincerely,

Redacted

Dei Allard
Doctoral Candidate
University of North Florida
1 UNF Drive
Jacksonville, FL 32224
E-mail: dallard@saffairs.msstate.edu or d.allard@unf.edu
Appendix E: Copy of Introduction Letter

Hello Trio participant:

Thank you for agreeing to participate in this study.

There are 2 pieces to your participation:

1. The Informed Consent form

2. Complete the Survey - please go to
   http://unf.co1.qualtrics.com/jfe/form/SV_difFNWyvkRq1cVL to access the electronic survey and respond to the questions within. Please complete by August 24 / September 21, 2018

Thank you again. If you have any questions do not hesitate to reach out to me.

Hail State!

Dei

Dei Allard
Doctoral Candidate
Educational Leadership
University of North Florida
dallard@saffairs.msstate.edu

Redacted
Appendix F: Program Director Email Consent

July 9, 2018

I, Julie Capella, will serve as the sponsor to Dei Allard for her research of student engagement within the Trio Program participants at Mississippi State University.

Please let me know if you need anything else to confirm the approval of this project.

Sincerely,

Julie Capella

Director, Student Support Services

Mississippi State University