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Effects of a Counseling Program on First-Generation High-School Student Aspirations, Self-Efficacy, Perceived Barriers, Knowledge of the College-Application Process, and Course Selection

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EFFECTS OF A COUNSELING PROGRAM ON FIRST-GENERATION HIGH-SCHOOL STUDENT ASPIRATIONS, SELF-EFFICACY, PERCEIVED BARRIERS, KNOWLEDGE OF THE COLLEGE-APPLICATION PROCESS, AND COURSE SELECTION

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Dissertation Abstract

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The benefits of a college degree are clear. Those with a college education are more likely to participate effectively in the governance of the nation, contribute their time and resources to the community, depend less on government services, and engage in fewer crimes (Institute for Higher Education Policy, 1998). According to the literature, the parents' level of education is a major indicator in determining whether a student completes a 4-year college degree (Perna & Titus, 2005). First-generation students are far less likely to gain admission and complete a degree from a 4-year university, in comparison to non-first-generation students (Tinto, 2006). Despite these findings, research has shown that some interventions can show small, but significant improvements for first-generation students toward gaining admission and successfully earning a bachelor's degree. Further, the literature suggests that the school counselor is in a strategic position to fill this void by offering appropriate support for first-generation students at the school site level (Bemak, 2005).

Therefore, the purpose of this quasi-experimental study was to study the effects of a counseling program on first-generation high-school student's aspirations, self-efficacy, perceived barriers, knowledge of the college application process, and course selection. The treatment included 12 lessons taught over a 4-week period covering important college-related topics, whereas the comparison group followed the traditional high-school curriculum.

A sample of 88 freshmen first-generation students were divided into four sections of a freshmen elective course, and a pretest-posttest research design was used to measure the effects of a high-school counseling program. The questionnaire instrument was administered to collect data from the participants in a two-group study where two classes received the treatment and the other two classes were the comparison group.

The results of the study indicated positive findings for both course selection and career aspirations, although most comparisons showed no differences between groups. The two positive effects do suggest that a dialogue among stakeholders, administration and staff on how to continue focusing on the needs of first-generation students. Their low rates of admission and earning bachelor's degrees suggest a need to expand and develop a more comprehensive counseling program focused on first-generation students, and that school counselors should take a lead role in guiding the development of such a program.

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education. The content and research methodologies presented in this work represent the work of the candidate alone.

Edress Waziri	Date

Dissertation Committee

Robert Burns, Ph.D., Chair	Date
Patricia Busk, Ph.D.	Date
Emma Fuentes, Ph.D.	Date

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CHAPTER I

STATEMENT OF THE PROBLEM

One of the fundamental tenets of any democratic society is the ability to provide free public education. Public education in the United States was established to promote better social conditions and unity, to develop responsible citizens, and to help citizens become economically independent (Center of Education Policy, 1996). According to the U.S. Department of Education (2016), education is the best tool for creating wealth and happiness, for increasing employment rates, for having children who are more likely to attain higher levels of education, and for the ability to lead a more meaningful life.

Since 1945, the federal government has launched numerous programs to promote public education (Jeynes, 2005). Specifically, the Truman Commission made several recommendations on improving college access and equity. The commission set out to allow college to be affordable and available to all regardless of race, creed, gender, or national origin (Hutcheson, 2007). Truman (1945) emphasized the fact that the role of education is pivotal for the progress of any democratic society, insuring an education to all its citizens regardless of gender, socioeconomic status, faith, or ethnicity.

In the 1960s, as all U.S. public schools transitioned into desegregation, there was an obvious financial disparity that still existed. Lyndon Johnson, who had just been elected president, emphasized social reform by focusing on education as the primary factor toward change. As a result, the Elementary and Secondary Education Act (ESEA) of 1965 was enacted. The purpose of ESEA was to serve the needs of poor children, through major funding allocated specifically to schools that created plans toward the improvement of

education. After 2015, the ESEA legislation was reauthorized to continue with its commitment to equal opportunities for all children.

Furthermore, during the 1960s, federal college-preparation programs, Upward Bound, Talent Search, and Student Support Services, were added as part of the 1965 Higher Education Act (Swail & Perna, 2002). These programs, known as TRIO, were geared toward supporting the needs of students who were challenged. In 1998, the Reauthorization of the Higher Education Act initiated Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) with the goal of bridging K–12 education and postsecondary education. Recently, more programs have sprouted, including Head Start, PUENTE, President Clinton's national standards program, affirmative action programs, No Child Left Behind, and various other programs.

Much of the programs' efforts have focused on creating a path to college, attempting to raise students' self-esteem, parental involvement, and community partnerships (Slavin & Madden, 2006). Additionally, many of these initiatives focus on supporting the areas of academic counseling, mentoring, and academic preparation for college. Some include rewards, such as funding incentives and scholarships, and other sources of support once students enter college. They also encourage positive peer and family networks to support families in planning for and gaining admission to 4-year institutions.

Given the government's efforts to provide quality education to all, it has long been known that there were disparities in academic performance between groups of students generally categorized by socioeconomic status (SES), race, ethnicity, and gender. For example, in 1966 the "Coleman Report," ordered by the U.S. Department of Health, Education, and Welfare to evaluate the educational opportunities for children of underserved

populations, found considerable achievement differences among racial groups. Many additional reports, national report cards, and large-scale achievement tests have found similar results to the Coleman Report.

Even with these efforts, the achievement gap discovered by James Coleman continues to persist today, and much effort has been made to have more students attend college (Engle, 2008). Current literature suggests that the greatest influence on whether students attend college or not is their parents' level of education (Perna & Titus, 2005). According to Workman (2015), a student's process of choosing a major or career begins years prior to making the decision. These decisions are influenced and even dictated by family, friends, and the community as opposed to staff and the academic environment.

The combination of first-generation status and social class often influences educational outcomes (Pike & Kuh, 2005). Parental support has been acknowledged as an essential form of social support for the career decision-making of first-generation students (Constantine, Wallace, & Kindaichi, 2005), their interest in mathematics (Lopez, Lent, Brown, & Gore, 1997), and their career interests across Holland themes (Lapan, Hinkelman, Adams, & Turner, 1999). Thus, such associations of first-generation students' parental support represent important sources of their career aspirations.

According to the National Center for Education Statistics (U.S Department of Education, 2016), first-generation students are defined as undergraduates whose parents never enrolled in postsecondary education. Various studies have used the metaphor of "uncertain climber" to explain how first-generation students are in undiscovered territory when entering college. Unlike their counterparts, family, community, and peer support are often nonexistent, leaving first-generation students to discover the college culture through trial and error. "Doubly disadvantaged" is another

term widely used to describe first-generation students because they tend to be from a lower socioeconomic status, and of minority background, thus being doubly disadvantaged (Engle, 2008).

A particularly important challenge that first-generation students face in attaining admission and completing college is the lack of rigor in their course selection in high-school. Horn and Nunez (2000) examined a national sample of high-school graduates and their mathematics course selections. Only 14% of first-generation students took algebra in eighth grade, as opposed to 34% of non-first-generation students who took algebra in eighth grade. Furthermore, it was found that 22% of first-generation students of the sample took advanced mathematics courses, in comparison to 61% of non-first-generation students. This discrepancy is important due to the nature of taking algebra in middle school because it paves a path to completing more advanced mathematics in high-school. Students learn about advanced rigor and are brought into contact with more college-focused peers, which are factors that lead to college success.

A second study found similar results. In analyzing a national high-school sample, Warburton et al. (2001) reported that 40% of first-generation students did not enroll in courses beyond the minimum graduation requirements. Additionally, although only 9% of first-generation students enrolled in a college-preparatory course track, 22% actually completed this track. With such minimal college preparation, it is expected that major difference in college success will exist.

It is evident that the minimal educational expectations of first-generation students can lead many to decide not to pursue postsecondary education, sometimes even before entering high school (Hossler, Schmit, & Vesper, 1999). In order to combat this mindset, institutions have begun to promote a college-going culture in middle school or early high

school. Components of successful college-going programs include academic planning, family involvement, career and college counseling, addressing perceived barriers, and social support (Tierney, Colyar, & Corwin, 2003). Even with some successes, it is clear more research needs to be conducted to assess the perceptions of first-generation students long before they enter college. Specifically, in the research literature described in Chapter Two, five variables that have been mentioned are aspirations, self-efficacy, perceived barriers, knowledge of the college application process and course selection.

Aspiration refers to one's ambition toward a specific goal, and academic self-efficacy refers to the beliefs about one's own capabilities toward academic success (Bandura, 1997). The term "perceived barriers" refers to the students perceived challenges that include perceptions of academic incompetence and not being in tune with the college going culture. Such factors have led many to remain unengaged in the college life (Conley, 2008). Finally, knowledge of the college application process and course selection refer to one's understanding of the intricacies related to applying to college and knowing where to seek support from the appropriate entities in order to be admitted to college and complete a college degree (Conley, 2008).

The research suggests that decisions early on greatly influence college success. Unfortunately, researchers have focused their efforts at the college level, and although helpful, they miss an entire group that either does not make it to college or makes it to a 2-year college only. Tinto (2006), for example, found that 70% of community-college students drop out. With the exception of a few national longitudinal studies and vague descriptions of what school officials should be implementing at the high-school level, little empirical research has been conducted on first-generation students at the high-school level.

Consequently, research is needed on first-generation student's experiences at the high-school level.

Purpose of the Study

The purpose of this study was to examine the effectiveness of a counseling program for ninth-grade first-generation students. In particular, this study addressed the research question of whether a high-school program directed at freshmen first-generation students can impact the five variables research has shown to influence students making decisions about their high-school academic experiences.

During the 4-week intervention, college readiness lessons focusing on contextual skills, awareness, and academic behaviors, as defined by Conley (2012), were implemented. These lessons, three hours per week, provided an opportunity for indepth discussions that were intended to promote greater interest in college-related content, allowing students to aspire to higher academic standards, and to dispel negative perceived barriers. A treatment group was assigned to the counseling program and a comparison group completed the regular curriculum that did not cover college application procedures. Both groups completed a pre-and posttest questionnaire measuring their aspirations, self-efficacy, perceived barriers, knowledge of the college application process, and course selection.

This final variable, student course selections made for 10^{th}-grade year, were examined and compared between the treatment group and comparison group. The assumption was that students in the treatment group might register for more rigorous courses intended to meet matriculation. In contrast, the comparison group, who may not have the level of knowledge required to make these decisions independently, would register for courses that are less rigorous and not aligned with the matriculation requirements.

Educational Significance

This study is important for three reasons. First, if results would indicate that college readiness counseling is effective, then counselors and administration would have a clear direction on how to serve first-generation students. Counselors could identify first-generation students and identify areas of need to better prepare them for college. Such areas of need would include dispelling negative perceived barriers, which are thoughts of academic incompetence, not fitting-in the college culture, or perceiving themselves as the "outsider". Lent et al. (2000), for example, argued that the higher the level of one's self-efficacy when facing perceived barriers, the less influential those barriers will be.

Second, because of the growing inequities in postsecondary-degree attainment, school counselors could be a resource for setting higher aspirations through higher academic expectations, providing college admissions information, and engaging students in thinking about and planning for their future (Farmer-Hinton, 2008). Such counselor support could include activities such as thoroughly reviewing course registration, providing resources for academic support, assistance with the college application process, applying to specific colleges, financial aid, Scholastic Aptitude Test (SAT), American College Testing (ACT) preparation, and exploring college majors and careers.

Third, the results of the study may suggest counselors could provide parent outreach to first-generation student's parents by keeping the parents informed and involved in the decision-making process, in turn, allowing the parents to then act as a reinforcement outside of school. Such information would include monitoring of academic progress, information about college nights, important college application deadlines, how to apply for fee waivers,

and other related tasks. Thus, school counselors working with first-generation student populations may be in a strategic position to implement college-readiness counseling.

Theoretical Framework

Much of the attention of researchers focuses on the lack of achievement at the college level (Tinto, 1993) and the challenges that contribute to the high rates of college attrition. Thus, many of the retention models (Kerby, 2015) focus on freshman college students, ignoring high-school preparation, or if they do identify precollege experiences, it is typically an undifferentiated "precollege" set of variables. Conley (2005, 2008) is one model that does focus on high-school preparation.

Conley (2008) defined college readiness as the level of preparation a student needs to succeed—without remediation—in a college-level course. Additionally, success is defined as the ability to complete a college-level course with a certain level of proficiency where it is possible for the student to progress to the next level. Thus, if students can succeed in entry-level college courses, they are more likely to handle the courses that follow (Conley, 2008).

According to Conley (2008), the success of a college student is built upon a foundation of key cognitive strategies that enable students to learn content from a range of disciplines. College readiness is a multilayered concept comprising numerous variables that include factors both internal and external to the school environment. As shown in Figure 1, his model organizes the areas necessary for college readiness into four concentric levels that include key cognitive strategies, key content, academic strategies, and contextual skills and awareness.

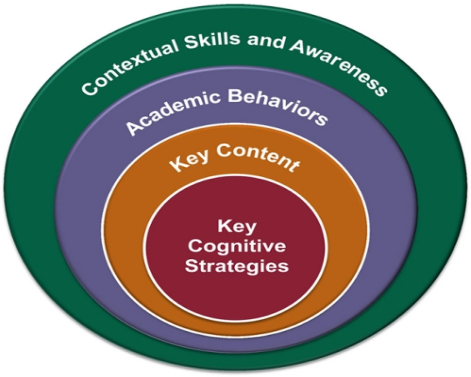

Figure 1. Facets of College Readiness (Conley, 2008)

The first component is key cognitive strategies, the skills necessary to be able to problem solve and critically think about content at a deeper level. This is a skill that develops slowly; it is not going to be taught. The second component is key content, which refers to the level of knowledge gained from taking required college-entrance courses including English, mathematics, social science, world language, arts, and science. The third component is academic behaviors, which refers to the ability to monitor one's self. The ability to practice self-awareness and understand one's limitations and strengths in order to learn academic content is entirely an independent skill from that of the key cognitive strategies. The fourth component is contextual skills, the most recent addition that illustrates the importance of privileged information that is necessary to navigate the college-admissions process. Knowledge about norms, values and conventions of interactions are never taught in school. For first-generation students, the lack of understanding of the college-admissions process typically leads to negative emotions of frustration, humiliation, and isolation and a sense of not belonging. In contrast, non-first-generation students enter college and bypass these challenges receiving the necessary support and guidance.

This study focused on contextual skills and awareness and academic behaviors. Conley (2008) described academic behaviors as characteristics pertaining to self-awareness,

study skills, self-monitoring, and self-control as a series of processes and behaviors required for success. Self-monitoring is referred to as the ability to monitor one's own learning through active monitoring, regulation, and evaluation (Ritchhart, 2002), which entails the tendency to identify and select among and to employ a range of learning strategies and the capability to transfer learning and strategies from familiar settings and situations to new ones (Conley, 2008).

Furthermore, contextual skills and awareness describe what is referred to as the "privileged information" essential to navigate the college-going culture. The absence of the culture causes many students to become alienated and frustrated during their freshman year leading them to believe that they do not belong in the college environment. Furthermore, the understanding of the norms, values, and conventions of interactions in the college context and the necessary coping skills to take on the challenges that face first-generation students during the transition to college is vital to their success (Conley, 2008). He extended this notion by noting that understanding the culture and possessing interpersonal and social skills that enable them to interact with peers and professors are imperative for collaboration and being successful in college.

Another element of contextual skills and awareness is "college knowledge" that includes information required to apply and navigate the avenues of college, which may be both obvious and not so obvious. This type of information includes application requirements, testing, course selection, tuition and financial aid, academic course expectations, and the college culture. Keeping up with timelines, the unique requirements that come with individual schools, exceptions, and financial aid are complicated. The economically well-off or non-first-generation students are typically more in tune with this

privileged information than first-generation students (Conley, 2005; Robbins et al., 2004; Venezia et al., 2004).

These factors take into account the concept that students need to understand the intricacies of college life and the environment and how to navigate the challenges that may be faced and also point to the need for students to face their academic challenges and seek help, to self-assess their understanding of material, and to self-monitor good study habits.

Background and Need

Currently, the Department of Education reports that first-generation students make up 24% or 4.5 million of all students in postsecondary education. For many, the journey ends at the start. Data show that 11% of first-generation students earn bachelors degrees in comparison with 55% of non-first-generation students. First-generation students are more than twice as likely as non-first-generation students to drop out of college by the end of their first year and generally complete a bachelor's degree in 5 years (Choy, 2001; Pascarella et al., 2004). They are four times more likely to leave higher education (Engle, 2008). This limitation is cause for major concern.

Given the importance of the problem, there have been a number of studies on first-generation students and successful transition to college. Specifically, in a major study by the Pell Institute, Engle and Tinto (2008) examined datasets from the U.S. Department of Education's National Center for Education Statistics, which included the National Postsecondary Student Aid Study (NPSAS), the Beginning Postsecondary Students Study (BPS), and the Baccalaureate and Beyond Study (B&B). The study sought to examine the ways in which first-generation students participate in postsecondary education, including persistence, barriers, and degree attainment rates, and compared their participation to non-

first-generation students. In addition, the study offered strategies to improve the rates of degree attainment as well as recommendations for institutions as well as lawmakers toward better serving the needs of first-generation students. Such recommendations included easing the transition during the first year of enrollment, monitoring student progress, providing additional support both socially and academically, increasing student engagement, and creating a culture of success.

In analyzing the data from the National Center for Education Statistics (NCES) from 1992 to 2000, Engle and Tinto (2008) found that 43% of first-generation students who enrolled in postsecondary institutions dropped out without completion (Chen, 2005). In additional, first-generation students faced many challenges in pursuing a college degree (Hsiao, 1992), including the motivation to devote sufficient time to study and achieve academic success. In effect, Hodges-Payne (2006) emphasized the need to thoroughly understand the factors that motivate first-generation students, which is of major significance.

In a similar study by Tinto (2004), a broad survey was conducted about what is known about why students leave college before completing their program of study. Utilizing data from a longitudinal study that stemmed from 1996 to 2001, it was found that 64% of non-first-generation students enter a 4-year institution directly after high school in comparison with 41% of first-generation students. Even more importantly, of those students who entered 4-year universities directly after high school, 56% earned a bachelor's degree, whereas those in the 2-year college route, 26% successfully transferred and earned a bachelor's degree. The researchers provided four explanations: differences in where one starts directly after high school, differences in academic preparation, social and cultural

barriers, and unmet need in financial aid, where first-generation students generally did not have the same financial support as non-first-generation students. It is apparent that there is a major void in the literature on better serving the first-generation students population.

The focus of this study was on first-generation students and how to better serve this population at the high-school-site level by focusing on aspirations, self-efficacy, perceived barriers, knowledge of the college application process, and course selection. Ishitani (2003) demonstrated that college enrollment and retention rates vary significantly depending on parents' educational levels. First-generation students are underprepared to make informed decisions about colleges in order to take full advantage of their educational opportunities (Pascarella, Pierson, Wolniak, & Terenzini, 2004). In contrast, when both parents are college graduates, their children are likely to have higher grade point averages than first-generation students (Pascarella et al., 2004).

Research Questions

This study investigated the following research questions with respect to a four-week counseling program designed to increase ninth-grade, first-generation student awareness of college requirements:

1. What changes occurred in first-generation student aspirations to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
2. What changes occurred in first-generation student self-efficacy to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

3. What changes occurred in first-generation student perceived barriers to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
4. What changes occurred in first-generation student knowledge of the college application process to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
5. What changes occurred in first-generation student course selection to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students? Did future course selections fit the college requirements better for students attending the program than students not already in the counseling program?

Definition of Terms

Achievement Gap: The differences between the test scores of minority students or low-income students, or both and the test scores of their European-Americans and Asian-American peers. (National Education Association, 2017)

College Preparation or Access Programs: An enhanced program that supplements a school's regular activities and are aimed at low-income youth who otherwise might not attend college (Tierney & Hagedorn, 2002).

College Readiness: The level of preparation a student needs to succeed—without remediation—in a college-level course. Additionally, success is defined as the ability to complete a college-level course with a certain level of proficiency where it is possible for the student to progress to the next level. Thus, if students can succeed in entry-level college courses, they are more likely to handle the courses that follow (Conley, 2008).

Cultural Deficit Model: An assumption that the cultural background of the student and poverty are the root causes of underachievement (Nieto, 2000).

First-Generation Students: Undergraduate students whose parents never enrolled in postsecondary education (NCES, 2016).

Knowledge of the College Application Process: How to apply to and pay for college; and the holistic cultural transitions to college (Engle et al., 2006). This includes the complex intricacies of navigating college application websites, financial aid, meeting deadlines for submission, and seeking out appropriate entities for support and additional resources, when needed. In the present study, the counseling program will provide an introduction to the college application process by familiarizing first-generation students to various universities, admissions requirements, tuition, and the admissions' application procedures.

Motivation: The need or desire to achieve particular outcomes, which in this study, pertains to the desire to pursue higher education (Sansone & Harackiewicz, 2000).

Perceived Barriers: Thoughts of academic incompetence, not belonging in higher education, and feeling like an "outsider" leading to the inability to fully engage in the college life (Conley, 2008). Negative perceived barriers are a major force of negative internal beliefs that should be acknowledged by school staff and make every effort possible to bring about positive perceived ideas of first-generation students. In the present study, the counseling program will attempt to dispel some of the negative perceived barriers that first-generation students have expressed that may hinder their aspirations to attend a university.

Self-Efficacy or Aspirations: Although aspirations and self-efficacy are separate constructs, the literature with respect to first-generation students combines the two and uses them interchangeably and is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective, and selection processes. Four sources are influential in achieving high levels of self-efficacy. These include mastery experiences, modeling, social persuasion, and reducing people's stress reactions (Bandura, 1997). For the purposes of this study, self-efficacy and aspirations were measured by analyzing the level of career aspirations students indicated and self-efficacy was measured by the level of capability they felt they had in achieving their academic and career goals.

Socioeconomic Status (SES): the social standing or class of an individual or group. It is often measured as a combination of education, income, and occupation

(American Psychological Association, 2016).

Summary

According to many sources, a parent' level of education can predict whether a student attains a 4-year college degree (Perna & Titus, 2005). Currently, the U.S. Department of Education reports that first-generation students make up 24% of the student population. Further, only 11% of first-generation students earn a bachelor's degree and are more likely to leave higher education (Engle, 2008). Further, school counselors have been noted as holding a position to influence these outcomes.

Therefore, the main objective of this study was to examine the effects of a high-school counseling program uniquely designed to serve the needs of first-generation students, as outlined in the literature. Specifically, this study sought to address first-generation student aspirations, self-efficacy, perceived barriers, knowledge of the college application process, and course selection. In implementing the counseling program, 12 one-hour comprehensive counseling lessons were taught to freshmen students in an introductory elective course and a pretest and posttest questionnaire was utilized to measure the effects of the counseling program. A group of first-generation students in two other classes acted as a comparison group.

First-generation students are a unique population in that they span across ethnicities and socioeconomic status. This study was a departure from the related literature where the majority of students who participated in the counseling program were of European-American descent, because the majority of literature has tended to focus on urban settings. Therefore, this study contributed to the growing literature on first-generation students by focusing on a more unique setting.

CHAPTER II

LITERATURE REVIEW

The purpose of this study was to examine the effectiveness of a counseling program for ninth-grade first-generation high-school students. Furthermore, it is worth noting that minimal empirical research has been done on first-generation students at the high-school level. Most of the current research has been on community colleges with a focus on low-income and minority students. This study is unique in that it was not conducted in a typical urban setting, but rather in middle-to-high income setting with the majority of students being of European-American background.

This chapter has three sections. First-generation students are defined, and a description of their characteristics and government-sponsored programs set in place to support them is provided. Section two discusses the barriers that impede the success of first-generation students are presented. Section three discusses the role of the counselor as being an agent for change at the school level is detailed.

The First-Generation Student

The focus of this section is on the first-generation students. Their characteristics, the transition they experience from high school to college, and government-sponsored programs that are set in place to support them are provided.

Defining the First-generation Student

According to the National Center for Education Statistics (NCES, 2016), first-generation students are defined as undergraduates whose parents never enrolled in post-secondary education. Various studies have referred to first-generation students as the "uncertain climber" as a metaphor explaining how first-generation students are entering

undiscovered territory when applying to college. Unlike their counterparts, family, community, and peer support is minimal, leaving first-generation students to discover the college culture through trial and error.

"Doubly-disadvantaged" is another term widely used to describe first-generation students because they tend to be from a lower socioeconomic status (SES) and minority background, thus referred to as "doubly-disadvantaged" (Engle, 2008). According to American Psychological Association (APA, 2016), SES is defined as the social standing or class of an individual or group. It is often measured as a combination of education, income, and occupation.

Gibbons (2014) offered a more specific definition of first-generation students, as those students whose parents lack postsecondary education or training and often attend college to honor the family or to pursue future financial success (Bui, 2002). The addition of "honor" and "financial success" describe the state of first-generation students as generally lower SES and in a state of struggle to improve their status. According to Engle and Tinto (2008), first-generation students are more likely than their more advantaged peers to be older, be female, have a disability, come from minority backgrounds, have dependent children and be single parents.

For the purposes of this research, first-generation students were defined as high school students whose parents never completed a 4-year college degree. This definition was selected with the intention of being neutral toward race, ethnicity and SES. Furthermore, it also is inclusive of students whose parents did enter college but were unsuccessful.

Characteristics of First-generation Students

Mardsen (2014) examined the research about the transition to college of first-generation students compared with traditional students. An exploration of three types of transitions that students experienced at the start of their college career included emotional, social, and academic. Attrition is more often related to social adjustment rather than not meeting the academic standards of an institution (Mardsen, 2014). Furthermore, the more integrated students are to an institution, the less likely they are to leave. Interactions with community members both inside and out of the classroom lead to greater effort in the classroom by students "Degree and quality of personal interaction with other members of the institution are critical elements in the process of student persistence" (Tinto, 1993, p. 56). Some people can handle the adjustment but "even the most able and socially mature" are overwhelmed and they leave (Tinto, 1993, p. 45). In addition, incongruence was another factor where students viewed themselves as unfitting within the college environment, which also led toward isolation.

In addition, first-generation students often experience higher self-doubt in their abilities to be successful in college, issues with prioritizing tasks, and overall less support and resources to assist them in meeting the requirements of college. First-generation students are generally from lower socioeconomic status and are Hispanic-American or African-American, and often motivation is hindered as a result. Once admitted into college, first-generation students are less academically prepared for college, with lower critical thinking, reading, and mathematics skills and, as a result, take remedial classes (Chen, 2005).

Transition from High-School to College

According to Conley (2008) high school and college are different in many distinct ways that require important attention. From the first day of college, students are expected to play the role of the independent adult. After having mastered the intricacies of precollege education, almost everything the student has learned changes which includes professor expectations, intellectual development, motivation, engagement, and most of all, independence from family, therefore making the transition quiet challenging. Furthermore, college courses are taught differently from high school. Faculty hold expectations that students will display deeper levels of thinking in their work that was never developed or taught in high school. They expect students to make inferences, interpret results, support arguments with evidence, conclusions, offer explanations, conduct research, and think deeply about what they are being taught (Conley, 2010).

Currently, there is no evidence that high schools and colleges work together in a fluent manner in assisting students with the transition (Engle & Tinto, 2008). Although there are certain programs in place at the college level, including orientation days, freshmen transition courses, and remedial courses, there is still a great need to improve the transition process even more so for first-generation students. Based on the internal factors that can hinder first-generation students progress, unlike the external factors mentioned earlier, educators have the potential to affect student, aspirations, self-efficacy, perceived barriers, knowledge of the college-application process, and course selection.

In a study by Stebleton and Soria (2012), the researchers sought to explore barriers to academic success that first-generation students experienced in comparison to non-first-generation students at a research university. The study was conducted using 58,000

participants from six research universities. Campus surveys were administered to undergraduate students during the Spring of 2009.

The findings revealed that differences between the two groups of students were statistically significant on many levels. It was found that first-generation students reported statistically significantly higher levels of job and family responsibilities, weak mathematics and, English skills, inadequate study skills, and depression. One recommendation was for administration, tutors, and other staff members to reach out to these students. Engle and Tinto (2008) suggested that tutoring, mentoring and summer bridge programs be available to students to encourage engagement in the university life.

More recently, D'Amico and Dika (2013) also studied student barriers to success, including the cultural shift into higher education, financial issues, academic factors, and integration into the college environment. Utilizing Tinto's (1993) models of retention, extant data were used to obtain initial enrollment data to study predictors of students' first-year success (i.e., retention and grade point average[GPA]). The data were derived from an institution that served over 1,500 freshman students, where half were made up of first-generation students. The researchers concluded that first-generation students earned significantly lower GPAs than non-first-generation students, which is similar to research already conducted in this area (Riehl, 1994;Warburton et al., 2001). Non-first-generation students enter college with more institutional knowledge and family support, whereas first-generation students may be put into a position to navigate the first year on campus without the benefit of that prior knowledge. This study affirmed the previously established findings that first-generation student status presents a major challenge toward success in college.

Furthermore, it is imperative that administrators reallocate the responsibilities of staff to better address this area of concern.

Pike, Hansen, and Childress (2014) examined the findings of past literature by studying the relationships between persistence and graduation and students' precollege characteristics, high-school experiences, expectations about college, and initial enrollment characteristics. Among the many factors that were measured, a major focus was placed on the fact that parents' education is related to student success. Specifically, being a non-first-generation student has been shown to be related with graduating from college (Ishitani, 2006; Kim & Conrad, 2006). The study utilized an instrument known as the ACT Compass placement exam and survey, school records, and college admissions information. The study found that being a first-generation student and being of minority background was correlated with graduating in 5-6 years, rather than the 4 years typical of non-first-generation students. In addition, the research findings were consistent with past studies where parents' education was significantly related to college completion (Ishitani, 2006). The research results support Tinto's (2008) idea that the experiences of first-generation students are not conducive toward success in college. Therefore, what would be a more plausible route to looking at the problem should include a preventative perspective starting far before entering college. As has been raised in many of the studies pertaining to first-generation students, the need to address the experiences of this population early on and to seek out programs that will address their needs appears to be important to student success. Therefore, the present study provided a counseling program to ninth grades at the beginning of their high school career so that they are provided with information pertinent to their future career and educational goals.

As first-generation students enter college, the disparities become more apparent. first-generation students enroll in remedial courses at alarming rates (Warburton, Bugarin, Nunez, & Carroll, 2001), take on a part-time schedule (Warburton et al., 2001), are less confident about their academic skills (Reid & Moore, 2008), and earn lower grades (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

The internal factors that were presented before included parent communication and involvement, college information, understanding barriers and how to overcome them, building strong academic skills, and setting higher academic and career standards to aspire to and motivation, can be taught to first-generation students, regardless of their community or socioeconomic status (SES). Such support services, resources and knowledge base can be delivered in many ways including one-on-one counseling, lesson plans, and other school-wide activities such as assemblies and parent nights. The present study addressed these recommendations by creating a 12-hour counseling program that included lesson plans, counseling, additional support services, resources and college knowledge.

In a study by Unverferth, Talbert-Johnson, and Bogard (2012), they sought to answer the following questions: Is parents' education a critical predictor of the persistence of first-generation students in pursuing a postsecondary education? What methods can be employed to eliminate or reduce the perceived barriers facing first-generation students in their quest for a postsecondary education?

The study concluded that first-generation students earned significantly lower GPAs than non-first-generation students, which is similar to research already conducted in this area (Riehl, 1994; Warburton et al., 2001). Non-first-generation students enter college with more institutional knowledge and family support, whereas first-generation students may be

put into a position to navigate the first year on campus without the benefit of that prior knowledge. Based on these findings, the researchers inferred that because of the major limitations in their knowledge on college information, first-generation students may not be comfortable and may not understand the enormity that is involved in the college transition process. In addition, the researchers further supported the conclusion that first-generation students do not have the knowledge base or support from their parents or school staff and therefore may lack the necessary skill to process the information. Finally, first-generation students generally receive poor counseling and consequently make poor decisions regarding their educational decisions. This is due, generally, because first-generation students attend high schools with low academic standards, which in turn effects their transition to college success (Inkelas, Daver, & Leonard, 2007).

As a result, the researchers were led to believe there is a disconnect between the desire of first-generation students and their willingness to be proactive about their role in the process. Therefore, these findings also imply that school staff need to ensure that first-generation students are equipped with the necessary information to navigate the perceived barriers that may hinder their college options. The research continues to point to schools to be an agent of change and take on a leadership role to address the issues of first-generation students. In order to address this point, the present study focused on the counselor to take on the responsibility of creating and implementing a program that would focus on addressing the needs of first-generation students.

In another study by Pascarella et al. (2004), the researchers affirmed the lack of research pertaining to first-generation students and, therefore, sought to address three questions, (a) Do precollege characteristics of first-generation students differ from non-first-

generation students, (b) Do first-generation students college experiences differ from those of non first-generation students, (c) What are the educational consequences of any differences on first-year gains in students' reading, mathematics and critical-thinking abilities?

Drawing upon the literature, the model utilized in this study hypothesized six sets of constructs defining a sequence that includes precollege academic preparedness through the end of the first year of college. Such factors have been associated with influencing the college experience. The study was part of a national longitudinal study spanning over a 3-year period starting in 1992. Data were collected from the U.S. Department of Education where 3,840 (31% first-generation students, 69% non-first-generation students) participants' pre-and-post survey responses were analyzed from diverse institutions. The results showed that in comparing first-generation students and non-first-generation students, the largest differences between the groups were based on family income, being Hispanic-American, entering college with lower academic abilities, lower degree aspirations, and less encouragement from family. It was worth noting that first-generation students reported fewer hours per week studying and were much less likely to seek support from instructors and tutors.

Furthermore, Pascarella et al. (2004) referred to first-generation students as "at risk" that uses a deficit model framework. Considering the age of the article, the term "at-risk" was not found in the more current articles, even though the findings and gaps have only widened more so, since 2000. With social justice awareness spreading across U.S. culture, such negative connotations have been reframed for the most part.

As a result of the findings, Pascarella et al. (2004) made the following recommendations that are similar to what has been reflected in the literature on many

occasions. From high school to the college transition in the first year, there are many challenges that need to be addressed and prevention systems need to be put in place. Faculty and staff need to reach out to first-generation students beyond the scope of merely advertising support by differentiating current practices as well as adjusting institutional norms to better benefit first-generation students, which would include collaboration among the institutions to oversee a smooth transition from high school to postsecondary schooling. Furthermore, because first-generation students tend to have other responsibilities such as part-times jobs, institutions could offer more student-work to relieve them of these duties.

This research is vital for school staff as they prepare first-generation students for college. First-generation students face many internal barriers, including self-doubt about their abilities, as they may think they do not belong is the college environment. Support in facing these barriers is imperative to college success. Family and friends of first-generation students generally have no experience of college and may be unsupportive, making guidance from other school staff that much more important. It is clear that the transition from high-school to college needs to be streamlined in order to support first-generation students (Terenzini et al., 1996). Collaboration between school districts, community colleges, and universities are essential.

Practices and Interventions for Low-Income and Minority Students

Federal-aid programs that support precollege and college access for low-income and minority students include those such as Upward Bound and Gear Up. In addition, there are nongovernmental programs such as Advancement via Individual Determination (AVID), as well as state supplement programs such as Helping Outstanding Pupils Educationally (Bergerson, 2009). Tierney and Hagedorn's (2002) defined college preparation or college

access programs as "enhance[d] programs that supplement a school's regular activities and are aimed at low-income youth who otherwise might not attend college" (p. 2). In Perna's (2002) research of 1,100 college outreach programs, she uncovered that at least a third of these institutions of higher education offered programming to increase college access for underrepresented youth.

Given the current state of first-generation students, low-income and minority students, high-school programs such as PUENTE and AVID have been created to combat these challenges. These programs have been around for decades and have shown considerable gains. For example, PUENTE, which was created in 1981 by two San Francisco Bay Area community college instructors to help serve underrepresented groups, is now practiced in California serving over 400,000 high-school and community-college students. PUENTE has been recognized by numerous awards and continues to spread beyond California. Recently, the operation headquarters has relocated to the University of California Office of the President (UCOP) and no longer has an official website; rather each individual school manages their own independent website pertaining to their students. Therefore, specific data are not available on the system-wide effects of the program, instead, there are PowerPoint presentations created by the school coordinators of each school to present data. In examining these presentations, minimal data are found other than a few comparison graphs indicating that PUENTE students are more successful than non-PUENTE students by a large percentage point.

According to the What Works Clearing house (WWC, 2006) Intervention Report, PUENTE's philosophy is based on the idea of college readiness and academic preparedness. The program begins in the ninth grade with a cohort of students in English classes that

develops their growth, and literacy and prepares them for posthigh-school reading and writing. College planning begins at the start of high school and is monitored by a designated staff member known as the PUENTE counselor or coordinator. In addition, students are expected to take on leadership activities gaining the experience to become life-long contributing members of society (Department of Education, 2012). The program continues the tradition into the community-college level through continued academic preparation, career planning and mentoring.

Another program is the AVID program, which stands for Advancement Via Individual Determination. AVID has been around since 1990 and is across the nation. It serves over 700,000 students from underrepresented backgrounds. Its focus is on college and career readiness by teaching behaviors and skills for academic success. The program begins in middle school and is offered as an elective course to students who are B, C and D-level students with aspirations of going to college and are motivated to work hard. Students go through an interview process, and a selection committee makes the final decision (Smith, Elder, & Stevens, 2014).

In addition to PUENTE and AVID, there are numerous other programs that also help students who are not working to their full potential. It is from my professional experience that students who participate in such programs generally have minimal attendance and discipline issues. Parents are involved and supportive of their student's education and career goals.

It is questionable that if programs can hand-select their students through a rigorous selection process, then these practices although noble in appearance, may be quite deceiving. The typical student in one of these programs may be from an underrepresented

background, however, he or she may have all the necessary support from home, school, and motivation to move forward regardless of the programs intended effect. Therefore, although these programs seem to be making groundbreaking strides in education, the student who need the most support and attention are still not involved in this process, including first-generation students. Because these programs do not offer accountability data, there is nothing on which to base their success; therefore, there is no evidence to show that these programs are making any progress.

The Common Core State Standards (CCSS) is another initiative that has recognized the need for a major focus on literacy (Akkus, 2016). CCSS addresses the reality in that schools across cities are not aligned with the same standards of academics. Clear standards have been created that include benchmarks, as well as there are support systems in place that help students progress at the same pace as everyone else across the state, which in turn equates to all holding the same level of rigor and standards. Therefore, when students from different high schools attend a university, they should be competing at the same level. In addition, the CCSS matches up with international standards, so that U.S. students can compete in the global economy (Deal & Peterson, 2016). The CCSS is a viable and well-intended plan; however there are many skeptics that questions how CCSS will effect low-achieving students, considering that the benchmarks will raise the bar. How will these students be supported?

According to de Velazco, Mclaughlin, and Milbrey (2012), in California, generally, at the high-school level, if students are not on track for graduation after 2 years, they are transferred over to continuation schools. No more homework, tests, or long school days. Students typically spend 3 hours in the morning going over assignments in class with a

teacher assisting the student very closely. The students are given hand-held support and receive a high-school diploma. The system appears to be helping students move forward and rescuing them from dropping out. Unfortunately, the majority of students earning continuation-school diplomas barely read or write and they are typically defiant, truant, and have minimal skills to find a job. Thus, continuation schools serve as an outlet for first-generation students who are referred to by the literature as having low aspirations, low self-efficacy and there are better suited for the continuation-school path. The present study attempted to create and implement a counseling program that would also inform students about the negative long-term effects of making choices that were unfavorable to their chances of attending college.

It is obvious that there are interventions in place that attempt to address the needs of all students who may need extra support systems. They are very specific in their selection process with which students qualify for these programs. Students who show potential or are already receiving service elsewhere are more likely to be selected, which at times does not service the population that the program was intended for.

Overall, similarities exist in the mission of college access programs. These high-school programs provide transitional academic, social and emotional support, family involvement initiatives, leadership development, and service-learning opportunities (Oseguera, 2006). At the surface, it may prove that the recommendations by the literature advocating for services for first-generation students as being met at the school level, first-generation students continue to fall behind non-first-generation students. Further, the present study makes an additional attempt to address the needs of first-generation students that are currently being met at the high school-level by offering a 12-hour counseling program.

Barriers to Success

Section two begins with a description about the many barriers that exist for first-generation students affecting rates of admission to universities as well as successfully completing the degree. Then five major variables are introduced including aspiration, self-efficacy, perceived barriers, knowledge of the college application process, and course selection. These variables were the focus of this study.

Defining Barriers To Success

First-generation students face a plethora of barriers that make it challenging to be successful in high school and college. Specifically, first-generation students generally come from minority backgrounds and of lower socioeconomic status. In addition, they are academically less prepared for the rigors of college. First-generation students are in danger of failure, even before they enroll into postsecondary education (Conley, 2008). In this literature review, the barriers were divided into two subcategories, namely internal and external factors.

External Barriers

External barriers that pose a challenge to first-generation students include socioeconomic status, environment, and family. Generally, the environment of first-generation students is made of low-SES, low achieving schools, parents who may not be familiar with the education system or have not been successful in schooling, and the lack of positive role models (Gibbons, 2014). These factors are “external” because they are environmental and outside the control of first-generation students.

Attending a low-achieving school typically means engaging in less rigorous work, negative peer interactions including increased defiance, truancy, violence, and low academic

expectations. Such phenomena are due to the fact that many of these students live in poverty. Poverty is a major factor for school success and is avenue for many missed educational opportunities (Hughes, Stenhjem, & Newkirk, 2007). Typically, poor and minority students are placed in less challenging classes and attend schools with low graduation rates and that provide less academic rigor and quality of instruction (Hughes et al., 2007). The instructional barriers that first-generation students experience early on continue onto college where they encounter a conflict between the college community and the cultures in which they were raised (Hughes et al., 2007).

According to the National Center for Education (2016), seven risk factors contribute to attrition for first-generation students. These risk factors include a delay in attending postsecondary education following high-school, attending part-time, working full-time while enrolled, being financially independent from parents, having dependent children, being a single parent and having a General Education Development (GED). It is obvious that the world of a first-generation student is complicated, challenging and in need of attention by schools. Pascarella et al. (2004) argued that first-generation students are generally at-risk and require the services of schools to support their unique needs. The present study took into account the complexity that is involved in the lives of first-generation students and therefore attempted to offer lessons beyond college knowledge, but motivational and aspirational-based lessons that offered hope and realistic pathways to attending college in the future.

Internal Barriers to Success

The research reviewed on "internal" factors includes aspirations, self-efficacy, perceived barriers, knowledge of the college application process, and course selection.

These factors, albeit influenced by the environment, may be under control to a certain extent by first-generation students and schools. Thus, the focus of this literature review is to present interventions that influence internal factors because students have some sort of control over their attitudes and strengths, whereas with external factors, they cannot control their community, school, and SES.

Aspirations and Self-Efficacy

Although aspirations and self-efficacy are separate constructs, the literature with respect to first-generation students combines the two and uses them interchangeably. Therefore, this literature review will follow the previous literature's direction.

Student aspirations are something that can be taught or redirected by educators. An educator has the power to some degree to either aspire a student or make him or her believe that he or she has no chance in the game. Furthermore, when positively aspired, students can also gain the high levels of academic abilities, leading to a successful posthigh-school education.

Bandura (1997) defined self-efficacy as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective, and selection processes. Four sources are influential in achieving high levels of self-efficacy: mastery experiences, modeling, social persuasion, and reducing peoples stress reactions (Bandura, 1997).

In a study by Laio, Edlin, and Ferdenzi (2014), the researchers sought to examine the relationship of self-regulated learning efficacy and self-efficacy for academic achievement

on predicting persistence in community-college. In order to better understand the effects of persistence, a second goal of the study was to investigate the effects of intrinsic and extrinsic motivation on student persistence. A survey of 310 first-year community college students was collected using a 5-point Likert scale during the Fall, Spring, and Summer semesters of 2008. Modified scales from Zimmerman, Bandura, and Martinez-Ponz (1992) were utilized to measure self-efficacy for self-regulated learning. In addition, a Likert scale was utilized to measure intrinsic and extrinsic motivation where persistence and reenrollment were designated as dependent variables.

It was found that 8% of the variance of persistence was due to both self-efficacy and extrinsic motivation, whereas intrinsic motivation had no effect, leading researchers to affirm prior studies that also supported the idea that extrinsic motivation did play a major role on potentially pursuing a college degree. What was found was that students do exercise self-regulated learning to improve socioeconomic status and not for the sole purpose of learning. The study pointed out that with guidance and increased focus on motivation, and college awareness, students do find more purpose to succeed and make decisions to help themselves.

In another study by Prospero, Russell, and Vohra-Gupta (2012), a comparison of motivation was studied between first-generation students and non-first-generation students. Three hundred and fifteen high-school and college students completed an academic motivation survey. The researchers measured three forms of motivation including intrinsic, extrinsic and amotivation. Three questions were addressed. First, is age related to motivation? Second, is motivation related to Grade Point Average (GPA)? Third, does

motivation of first-generation students differ between high-school and community-college students, also Hispanics and Non-Hispanic students?

The study explored local community-college program that focused on bridging college and high school surveyed 63 first-generation high-school students. Two hundred and fifty-two first-generation community-college students were surveyed who were recruited by an undergraduate psychology class and were awarded extra credit for completing the survey.

The findings revealed a negative and close to zero correlations between age and extrinsic and intrinsic motivation ($r = -.15$, $r = -.11$, respectively). Younger or high-school students showed higher levels of motivation. To address the second research question, findings suggested that all three types of motivation statistically significantly contributed to academic performance for both first-generation students and non-first-generation students. Extrinsic motivation correlated with a lower GPA, which suggests that first-generation students may not perform as well when there are external rewards or punishment avoidance situations. The third research question suggested that high-school students have higher levels of intrinsic motivation in comparison with college students. The data also found that Hispanic first-generation students had higher levels of intrinsic motivation in comparison with non-Hispanic first-generation students.

This study raised ideas that may help researchers better understand the role of motivation, especially in the Hispanic community. Thus, community plays a major role in influencing college success. The study also illustrates the importance of internal factors and how easily they can be influenced in such a short period of time both positively with intervention and negatively with the absence of them, which supports the argument that schools need to do more outreach beginning with the families, and then to the community.

Creating such partnerships will allow all stakeholders to take part and send the same message to the student. In an attempt to connect first-generation students to staff, the present study attempted to build stronger relationships between the student and the counselor as a resource at school to rely on for college information and advocacy.

Bryan et al. (2012) examined data from the Educational Longitudinal Study of 2002 (Ingels, Pratt, Rogers, Siegel, & Stutts, 2004) to investigate the effects of students' contact with school counselors for college information. More specifically, they wanted to examine whether students' contact with school counselors for college information served as a source of social capital for first-generation students in regard to the college admissions process. The size sample comprised of 4,835 high-school seniors. The results found that over 14.5% of the students reported no contact with the school counselor for college information, 44.9% reported that they had contact with the school counselor for college information by the 10th grade, and 40.6% after the 10th grade. In addition, 22.8% did not apply to college, 23.9% applied to one college, and 53.3% applied to two or more colleges. The findings suggested that gender, academic achievement, parental involvement, and school size were relevant predictors of applying to college. Furthermore, student-counselor contact for college information is a significant positive predictor of applying to college, and these effects appear stronger for students before 10^{th} grade as opposed to after 10th grade. Finally, even though SES appears to have had a negative effect on applying to college, the results support research that suggests that school counselors may be a major source of information and motivational support in the college-going process for first-generation students (Cabrera & La Nasa, 2001; Stanton-Salazar, 2001).

The study made several recommendations including the idea that school counselors must take a leadership role in guiding positive parental involvement and community engagement in the college going process and plan ways to encourage the college going culture. Thus, such programs and preparation should start as early as elementary school (Trusty, Mellin, & Herbert, 2008). This study reiterates the argument that schools can and should take on a bigger role of connecting to communities and parents at closer level, by building more positive relationships and a true a partnership.

In a study by Burns (2014), the researcher sought to examine a program designed to explore the educational and occupational aspirations of students participating in Visions for Success (VOS), a program designed by community leaders to support male students in the middle and high-school grades to be successful in schooling and their future careers. In addition, the program's goal was to connect the participants with positive adult role models who were of similar backgrounds as the participants. Data from the 5th year of the program were analyzed with a primary focus on their educational and career aspirations.

A survey was developed that examined their career and educational aspirations as well as ratings of influential factors that included their perceptions of peers, their school, self-perceptions, and academic self-concept. Furthermore, VOS-sponsored events where students were connected with professionals, as well as university environments. Therefore, the survey examined their perceptions of the activities on their academic and career aspirations. The results of this program were presented in a question-answer format where six items were addressed pertaining to VOS and non-VOS students on educational and career aspirations. In comparing the two groups, some differences included the fact that when asked about their future occupations, 43% of VOS students stated professional athlete

as opposed to 17% for non-VOS students. In addition, “professional” occupation and “master’s or doctorate” for education had the highest percentage points among all groups.

With these findings, Burns (2014) concluded that although the availability of information is important toward higher aspirations, it is not enough to bring about relevant change. As a result, Burns (2014) suggested that future studies focus on the effect of role models on student’s thinking and motivation. As a result, the present study implemented this recommendation in the counseling program by focusing on the counselor as a role-model that first-generation students could rely on and look to for information.

The study also revealed the importance that specialized programs can potentially make on the aspirations of student’ who may not have the necessary support systems in their environment. Second, it also is another reminder about the gaps that exist in better serving these students. Therefore, it is imperative that schools take the initiative to truly address them. As such, counselors are placed strategically to address these gaps.

Research shows that parental involvement in school contributes to increased college aspirations and enrollment among students (e.g., Cabrera & La Nasa, 2001; Perna & Titus, 2005; Tierey, 2002). In particular, Stanton-Salazar and Dornbusch (1995) emphasized the role of the school counselor as a vital resource for first-generation students. Further, the present study emphasizes the importance of the role of aspirations in supporting first-generations students.

As first-generation students progress through their schooling, their parents may become increasingly limited in their own capacities to provide appropriate support to their student in the college decision-making process. Appropriate guidance about school programs in conjunction with the school counselor with the college admissions process can

provide the necessary means and social capital that can assist family networks when students' parents have limited resources. Furthermore, in reference to college information, school staff may be the primary source of social capital for first-generation students (Cabrera & La Nasa, 2001; Harris, Duncan, & Boisjoly, 2002).

In a study by Engle, Bermeo, O'Brien, and Pell (2006) on the barriers facing first-generation students, including cultural, academic, financial support, and lack of knowledge about college. Engle also added to the literature by concluding that the combination of all the challenges mentioned in previous articles reduce the chances that first-generation students will decide to go to college at all as well as limit the options of college that first-generation students will consider attending, which can ultimately affect their chances of earning a bachelor's degree. Therefore, the need to address various factors, including barriers and lack of college knowledge are again emphasized.

Currently, much discussion and research centers around the two-track system seen in most high schools: college-preparatory and career or technical education (Rosenstock, 1991). Students with academic deficiencies when entering ninth grade have not had access to rigorous college-preparatory work (Balfanz & Legters, 2004). This multitrack system has existed despite the fact that parents have hoped their children would go to college (Carnevale, Rose, & Cheah, 2011). As Carnevale (2008) stated, "Right now, we have only one education track that works – the college track" (p.18). Deli-Amen and DeLuca (2010) argued the existence of a third group who participated in neither track and lacked focus to their high-school education. Students in this third group did not take advantage of or were not encouraged to register for rigorous academic work for the technical coursework that prepared students to enter the workforce. In some cases, entrance requirements prohibited

students from accessing these types of programs, which then left these students few options if they graduated from high-school.

Perceived Barriers

There is the notion of "perceived barriers" that are thoughts of academic incompetence, not belonging in higher education, or feeling like an "outsider" leading to the inability to fully engage in the college life (Conley, 2008). Negative perceived barriers are a major force of negative internal beliefs that should be acknowledged by school staff and make every effort possible to bring about positive perceived ideas of first-generation students.

In a study by Gibbons (2014), the notion of "contextual influences", as affecting self-efficacy beliefs, put forth by Lent, Brown & Hackett (2000) was examined. Contextual influences refer to perceived supports and barriers that affect self-efficacy beliefs about career and educational opportunities. Perceived barriers can influence career paths, as well as postsecondary options, whereas social supports can help strengthen self-efficacy and deter perceived barriers. Lent et al. (2000) argued that the more positive the perception of a person's ability to face perceived barriers, the less those barriers will be influential, which signifies the importance of addressing perceived barriers by school officials and to dispel the negative barriers they perceive based on false notions.

Two other studies specifically examined perceived barriers and supports among high-school students. McWhirter (1997) examined perceived barriers among Mexican American high-school students ($N = 1,139$). Students were given surveys measuring their beliefs about potential barriers in college and career opportunities. The results indicated the Mexican-Americans expressed family issues, lower intelligence level, and not fitting in as

barriers to success in college. The results support the idea that internal barriers play a major role in the perceptions of all students in the college decision-making process. The present study also emphasizes the erroneous perspectives that as a result hinder the idea of considering college as a viable option.

Flores and O'Brien (2002) also examined perceived barriers in female, Mexican-American high-school seniors ($N = 364$). Specifically, they sought to study the development of nontraditional career beliefs among this population and investigated the effects of parental support. The results indicated that parental support positively affected career aspiration and choice goals. These findings also support the notion that parental support was found to be more influential than barriers. Further, the present study emphasized the need for parents and families to be more involved with schools to ensure that students are receiving the same message at home.

Knowledge of the College Application Process

The combination of low college expectations, minimal academic resources and social support, and parents without college experience result in families allowing their children to choose less challenging high-school graduation courses (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Lloyd, Leicht, & Sullivan, 2008). Due to the fear of failure and social pressures, first-generation students do not realize the importance of a college matriculation with appropriate course choices (Hossler, Schmit, &Vesper, 1999). Reid and Moore (2008) studied first-generation students and found that once students entered college, they later regretted not taking advantage of the opportunities available to them in high school to be better prepared for the demands of college.

In a study by Engle et al. (2006), the study sought to understand from first-generation students which messages and services had the most effect on whether or not they enroll in college. In the state of Texas, where 35% of the population is made up of first-generation students, 135 first-generation students who were alumni from a college preparation program participated in a focus group, where several key factors were addressed including aspirations and motivation to go to college, academic preparation for college; "college knowledge" about how to apply to and pay for college, and the holistic cultural transitions to college. Similar to other researchers, Engle et al. (2006) also concluded that the following factors negatively affected first-generation students: lower levels of academic preparation, lower educational aspirations, less encouragement and support to attend college, particularly from parents, less college knowledge, and less resources to pay for college. Based on the focus groups, it was concluded that three themes needed to be addressed in order for first-generation students to be success in college: raising aspirations, increasing "college knowledge" and increased transition support once entering college. The present study also affirmed the need to address these variables more specifically where the potential for counselors to take on this leadership role would be appropriate.

In another study, Sawyer (2008) studied the effects of taking advanced core courses as early as middle school led to higher ACT scores, thus, enhancing student's chances of acceptance to a university. It is obvious that students and families are in need of proper guidance of the opportunities available to them and also need to be encouraged to participate in them. This study also adds to the growing literature and support for school staff, namely school counselors to take on the initiative to address these areas.

Literature has addressed the challenging transition from high school to college using descriptions such as college choice, college access, and college success. The research represents a wide array of definitions of key concepts, theoretical approaches, and methods (Perna, 2014; Perna and Thomas, 2008). Reports and empirical studies variously take students, demographic groups, programs, schools, states, and policies as their unit of analysis. Because of this inconsistency in approaches by various researchers, the literature on college readiness appears to exist in pockets of mainly independent conversations under a number of descriptions. Although college access has referred to acceptance and enrollment in a university (Perna, 2014), the focus on college preparation, more recently, has evolved into the term of "college readiness".

College readiness is a broad term that refers to the multifaceted set of skills, knowledge, and habits that are required for students to apply to and complete a university degree (Conley, 2012). Conley (2012) described the construct of college readiness as including the academic skills and the practical knowledge to engage in college activities and the aspirations and self-efficacy to attend college.

According to Conley (2012), transitioning into a university as a first-generation student, the need for contextual skills and awareness or "privileged information" is an understanding of the culture, rules, and conventions of interactions that are a part of the university environment (Conley, 2008). The understanding and social skills required that enable first-generation students to interact with peers and professors are imperative for navigation and successful completion of college. Furthermore, it include the need for students to face their academic challenges and seek help, to self-assess their understanding of material, and to self-monitor good study habits.

First-generation students experience major challenges with the transition to college compared to their peers (Pascarella, Pierson, Wolniak, & Terenzini, 2004). The lack of time-management and study skills lead to more difficulty navigating the components of academic as support from family is minimal (Richardson & Skinner, 1992). Such components include selecting a major, meeting, seeking additional support from staff, and planning out course selection.

Furthermore, developing key relationships "with faculty and other university personnel may be especially beneficial for first-generation students as those people can provide the necessary information, perspective, values, and socialization" (Lundberg et al., 2007, p. 59). According to Richardson and Skinner (1992), students who sought support from faculty, peer advising, tutoring, and mentoring was found to be beneficial in maintaining support throughout college. Unfortunately, first-generation students are reluctant to use such support services (Pascarella et al., 2004; Richardson & Skinner, 1992; Terenzini et al., 1996). As a result, such factors lead to higher levels of college attrition.

Recently, college-readiness programs have become a major focus of research, policy, and practice. These programs attempt to reduce social inequality by providing the connections between K to 12 and higher education that are necessary for first-generation students to enter college and complete it. Several researchers have examined the various challenges first-generation students face with respect to universities. Broadly, first-generation students have lower educational aspirations and self-efficacy than non-first-generation students, even though most want to attend college of some type (Riehl, 1994).

The Role of the School Counselor

The school counselor is introduced and described as are the responsibilities associated with the position in this section. The potential of the school counselor taking on a lead role in advocating for first-generation students at the school-site level means that school counselors would need to identify first-generation students, educate staff about the unique situation of first-generation students, and offer specific strategies and procedures to support their needs.

According to American School Counselor Association (ASCA, 2005), school counselors are certified educators with a master's degree in school counseling, making them qualified to address all students' academic, career, and social or emotional needs. School counselors design, implement, evaluate, and enhance a comprehensive school's counseling program focusing on student success. School counselors are employed in K-12 settings, in district-administration positions, and in counselor-education positions. In an advocacy role, school counselors provide leadership and collaborate to promote equity and access to rigorous educational experiences for all students. School counselors support a safe learning environment and work to address the needs of all students through culturally relevant programs that are a part of a comprehensive School Counseling program (Lee, 2001). ASCA (2016) recommended a school counselor-to-student ratio of 1 to 250. Therefore, counselors are in a strategic role within the schools to take on a leadership role and can address the concerns of first-generation students.

High school is the final stepping-stone into the adult arena where students begin to explore their own independence. Students are posed with having to decide who they are, the path to graduation, college, and career. During these very important developmental years,

students form a better evaluation of their personal and academic strengths, skills, and abilities. They must deal with academic pressures as they face high-stakes testing, the challenges of college admissions, the scholarship and financial-aid application process, and entrance into a competitive job market. As they face increased pressures regarding personal and academic challenged, they require guidance in helping them make decisions (ASCA, 2016).

The high-school student-counselor ratios and the inefficient practice of using school counselors' time and services in noncollege counseling-related tasks reduces the amount of time that high-school counselors can spend in college counseling and, consequently, reduces college access for students (McDonough, P., Ventresca, M., & Outcalt, C., 2000). Policy makers and administrators must reduce student-counselor ratios in schools by employing more counselors and by advancing national and state-level agendas and programs to promote college going for all students, especially for those students who historically have had limited access to postsecondary education.

The need for more support and guidance is imperative as first-generation students are not looked at as a population of concern and thus many fall through the cracks. There are no interventions specifically geared toward their needs and, therefore, are continuing to be unsuccessful. Such conclusions make it that much more important for schools to address this issue and give it urgency.

First-generation students need to be monitored and supported on a regular on-going basis. Career, college readiness, academic support, and self-efficacy need to be addressed on a consistent basis until they are prepared with the skills to move on. The argument for advocacy is that there should be school-wide awareness of the challenges first-generation

students face, administration should work with counselors to create and provide support systems in place so that first-generation students are not overlooked. Genuine dialogue should be had between district-level administration on what they are doing to better support first-generation students. Finally, data should be collected annually to monitor the progress of first-generation students.

For example, Bemak and Chung (2005) explored the changing role of the school counselor as being a change agent within the school system for fostering advocacy and equity and for decreasing the achievement gap. Because inequities continue to grow, school counselors are in a strategic role to advocate for students. The present study addressed some of the challenges that come with advocating for change especially when addressing superiors on how their actions may be detrimental to equity and access.

Bemak and Chung (2005) offered three ideas to support counselors in becoming proactive. First, there should be preservice training for counselor education that focuses on social reform, equity, and school reform. Second, the authors argue for inservice training on a regular basis to support counselors on new findings, systemic change, and so on. Third, Bemak and Chung (2005) argued for supervision, where school counselors can look with the district for guidance from an expert whose main purpose is advocacy. The present study offered some important ideas, while it also illustrated the challenges for educations in bring about systemic change in our educational institutions. Namely, school counselors are vital to addressing the needs of first-generation students as they have the resources to do so.

Pham and Keenan (2011) focused on the school counselor's role as a source of social capital for first-generation students and underrepresented students by examining the inequity

of highly qualified first-generation students who were not attending college directly after school, which was due in part to the lack of counselor influence.

The phenomenon of "mismatching" refers to students who are highly qualified but do not attend a 4-year college directly after high school. Further, in Pham and Keenan (2011) study, the term "highly-qualified" students referred to students who earned a minimum GPA of a 3.5, scored proficient on all subjects on state standardized testing, and earned as specific score on the ACT exam.

Utilizing a sample of 1,305 highly qualified first-generation students graduates and matriculation data from the National Student Clearing House (NCHS) and GPA, they found that first-generation students of lower SES, English Learners, and Special Education students were twice as likely to be mismatched. As past research has indicated, students who enter a 2-year college are far less likely than students who enter a 4-year college to earn a bachelor degree (Engle, 2006).

Consequently, it is worth noting that although school counselors play a major role in meeting the needs of first-generation students (Lohfink & Paulsen, 2005), their efforts are assigned to administrative duties such as scheduling and testing, where the responsibilities such as assistance with college applications and financial aid are left to the student to figure out. As a result, it was hypothesized that high-school counselors who focused their efforts on the specific needs of first-generation students were associated with more qualified first-generation students attending 4-year college directly after high school.

Thus, Lohfink and Paulsen (2005), concluded that because of the inequity that exists, partly due to the lack of counselor support, these inequities must be taken very seriously by administrators and school personnel through a more fair allocation of counseling services

based on first-generation students ratios, rather than by general student populations. Because of first-generation student's unique needs, it is imperative that they not be ignored, but rather given equal support.

Gibbons and Woodside (2014) examined the role of family on first-generation students after college completion. Because little research has focused on after college experiences, the study was focused on comparing and contrasting the perspectives of first-generation students with respect to gender. The researchers utilized qualitative findings from two phenomenological studies that they had done previously that examined the work and career experiences of first-generation students (Gibbons, Woodside, Hannon, Sweeney & Davison, 2011; Woodside, Gibbons, Davison, Hannon, & Sweeney, 2012). Utilizing Creswell's (2007) recommendations for conducting a phenomenological study to interview 17 participants (11 women, 6 men), Gibbons et al. (2011) selected three themes they believed would (a) accurately portray first-generation students, (b) add to the existing literature on first-generation students, and (c) offer suggestions to the role of the counselor and other supportive staff (Gibbons, 2014). The study utilized the following interview questions: "Tell me about your career and work experience. How did you get to where you are now?" Interviewers followed up with areas they felt could be explored in more depth.

In reanalyzing the data from the previous studies, qualitative adaption, commonly used in business, was used (Urbick, 2011). Three themes emerged as a result of the interviews. First, the role of the father was examined and found to be influential in creating high expectations of college and career and instilling a well-grounded work ethic. The father was mentioned as a support figure who offered advice, discussed future planning of college and career topics, and tied these ideas to the furthering of their well being, happiness, and

satisfaction. They also mentioned that they all had positive relationships with their fathers. Overall, both genders affirmed that their parents were vastly influential.

A second theme that arose was the fact that although they successfully earned a bachelor's degree and were prideful of the accomplishment, the financial rewards were not what they had expected. A third theme that arose was that females expressed gratitude in the mentoring they received in all facets of the college process, including academic support and financial and career opportunities. Males did not express mentoring as a factor in any form.

As a result of these themes, Gibbons et al. (2011) made some interesting suggestions for counselors to practice. First, discussing values and career goals with respect to their personal interest would potentially be influential in helping first-generation students aspire to attend college and better careers. Second, because the participants were first-generation students, counselors could emphasize the meaning of pride in being a first-generation student and how that could be considered a talking point when working with first-generation students. Finally, because first-generation students mentioned the effectiveness of mentoring on their success, counselors could seek avenues to connect first-generation students to mentors early on, encourage first-generation students to seek mentoring and to be forthcoming about challenges and barriers that may potentially impede their success.

Gibbons et al. (2011) offered some ideas that were practical and encouraging to counselors. Although quantitative data were not part of the methodology, it would be beneficial for future studies to involve quantitative data to support similar findings and add to the existing literature on better supporting first-generation students. Overall, Gibbons et al. (2011) offered informative and concise information relative to the academic counseling profession, which has been supported by the literature, to have counselors take on leadership

role in supporting first-generation students. Therefore, in the present study, a quantitative methodology was utilized in analyzing the data to add to the literature.

In a study by Blackwell and Pinder (2014), the researchers explored how first-generation students and minority students are motivated to overcome their family histories. This unique population was referred to as "barrier breakers" as they were overcoming challenges in order to complete a college education. Drawing on Zeldin and Pajares' (2000) claim that behavior is influenced by both personal and environmental factors, the purpose of the study was to provide insight to both families and education in helping them develop motivational tools to inspire first-generation students to pursue higher education. Using a grounded theory approach, two groups were interviewed. The first group was made up of three first-generation students and the second group was made up of two third-generation students and the research question of the study was: What are the motivational factors of first-generation students who overcame their family histories to pursue higher education when their siblings did not? The study defined motivation using the Sansone and Harackiewicz (2000) definition as the need or desire to achieve particular outcomes, which in this study, pertain to the desire to pursue higher education. Second, Zeldin and Pajares' (2000) definition of self-efficacy was utilized and was referred to as one's level of motivation, affective states, and actions. Finally, reference was made to the role of the parent as a major influence on whether a student aspires to higher education.

In interviews following the hermeneutic method, the data were collected via phone conversations and audio recordings. As a result, three causal conditions were considering motivating factors: (a) an intrinsic desire to learn and interest in academics, (b) when

compared with their siblings, first-generation students were different very early in age, as if it were innate, and (c) the desire for a better life was a major factor.

In contrast, the third-generation students did not have to make the decision to go to college, as it was instilled in them at a very early age and was expected, and there was not much choice. It was noted that the third-generation college students were surrounded by on a daily basis by family, friends, and community members who were educated and influential. Unfortunately, the environment of the first-generation students did not include such positive influences to rely on as a system of support, rather first-generation students are generally lower SES and of minority backgrounds putting them in a obvious major disadvantage. Thus the overall implications of this study support prior research on motivation of first-generation students, where the need for support both at the school level and in the family are considered major factors that are influential in helping first-generation students to aspire to higher education. The researcher pointed out the many obstacles that first-generation students encounter, including poverty, lack of information and attending low-quality schools. What we learned from this research is that parents and school staff can make a difference through support, encouragement, outreach via school events, and direct communication with the parents of first-generation students. Therefore, the present study attempted to place additional emphasis on school staff, specifically the school counselor in a role with the responsibility of encouraging and supporting first-generation students towards higher academic achievement.

In a study by Irlbeck, Adams, Akers, Burris, and Jones (2014), the researchers sought to determine the various academic, social, and professional development needs of first-generation students. Because universities have been working to increase student

population and retention, first-generation students were selected as a population of interest because of their unique characteristics and growing population.

The study sought to better understand how first-generation students perceive their college experiences with staff in helping them become more successful and more satisfied with their college careers. By using a case study method, indepth opinions and perceptions were examined to provide well-detailed information about first-generation students and their perceptions of college.

Three major themes emerged from the case studies: parental and family encouragement, teacher support, and self-motivation. Many of the participants said their parents were a major influence on their decision to go to college. Teachers were described as offering personal insight, guidance, and ongoing support in various ways to help the student aspire to go to college and how to be prepared. Only three of the nine participants mentioned being self-motivated toward higher education. Furthermore, affiliation with a religious or local community emerged as a major theme. Students mentioned wanting to participate in community programs in order to meet new people and become familiar with the local community. The results of the affiliation included learning about the experiences of others and the social interactions created relationships that served as support systems and sense of belonging, as well.

Finally, all nine participants expressed having positive experiences, which was, in part, due to the cohort structure, where students perceived that they were in a familial setting, both with their peers and with faculty who they thought were always looking out for their best interest. According to one participant, the lack of familiarity with the college culture would generally lead to feeling “out of place”; however, this student was not typical

for the participants, perhaps because there were many structures created to combat these feelings from occurring. Further, the participants of this study argued that peer interactions and support was beneficial. On the contrary, one student argued that peer support systems were not of central focus, but rather her immediate family played a more important role. Four participants mentioned instructors and counselors as offering sound advice and guidance with academic challenges that arose, which is tied to Lundberg's (2007) cultural capital that refers to the deep relationships that students develop with faculty where perspectives, values, and other "unspoken norms" are shared.

In conclusion, this research illustrated the importance of the social well being and needed support for first-generation students. Only nine students were interviewed in this study, and it would have been beneficial to include students who may have dropped out as well, because this information would have been pertinent to better serving first-generation students. Although the literature does offer some insight on how to better serve first-generation students, more could be examined in terms of prevention at earlier grades, preparation for college and even parent involvement and communication.

Debunking the Cultural Deficit Model

This section describes the importance of reframing how the literature refers to the challenges of the first-generation student. According to Nieto (2000), the deficit perspective assumes that cultural background of the student and poverty are the root causes of underachievement. The need for there to be a nonstigmatizing reference is of importance, as Nieto (2000) argued that such demoralizing references allow for teachers, administers, and staff-members to dismiss the idea that schools can be held accountable and that the student's academic faith has been predetermined.

Jimenez-Castellanos (2012) revisited the Coleman report (1964), for example, and argued that the message was counterproductive in viewing disadvantaged students through a deficit model lense. The Coleman report included over 3000 schools, including over 600,000 students and 60,000 educators, and was considered one of the largest social science studies ever done. According to Jimenez-Castellanos (2012), the original Coleman Report concluded that schools were not considered a major factor in the success of students. Rather, other factors were found to be much more influential including, biological, cultural, and environmental factors. The report concluded that such factors could be remedied by changing their cultural behaviors in order to align with school expectations in order to be successful in school. The Report was vastly controversial due to its finding and in addition its methodology was critiqued for its data collection practices.

In addition to these claims, the report was influential on how Title I funds were allocated. According to Stickney and Fitzpatrick (1987), the basis of intent of Title III or compensatory funding was to address the idea that (a) the total environment was had a major influence on student achievement, (b) schools served a major role in student achievement, and (c) improving schools in disadvantaged areas would greatly serve to be served in a more equitable fashion.

Jimenez-Castellanos (2012) concluded that districts are entrusted with allocating supplemental Title I funds; however, they are at a disadvantage because research is lacking in guiding them to select the best programs for students. As a result, funding is disbursed toward many programs that show little to no achievement for students. Jimenez-Castellanos (2012) made several recommendations including the idea that programs should focus on, expanding quality preschool opportunities, implementing early-literacy interventions,

engaging parents in a meaningful way, creating a culture of high expectations and college-readiness, extending quality instructional time, and maximizing Title I per pupil allocations.

Jimenez-Castellanos (2012) concluded with three main arguments countering the Coleman Report that included the idea that schools can make a difference in the lives of students. Policy-makers, educators, and the community should continue to look for ways to improve their approach to serving disadvantaged students and that approaching this problem from a deficit lense will not lead to any progress.

Second, the emphasis on reforming Title I funding, eventhough the Coleman report argues that supplemental funding to disadvantaged students has a minimal effect on student progress, the claim should be countered and funding should be continued and allocated to programs that have shown positive results.

Third, organizations should improve transparency and accountability by making it public to all stakeholders on how Title I funding is being allocated and what the results of programs being implemented are to rationalize the need for such additional funding.

This qualitative study presented some very important issues around funding and the lack of direction that districts have on how to utilize it toward programs that are data-driven. As a result, districts end up sponsoring programs that have little effect in addressing the intentions of the funding. Jimenez-Castellanos (2012) then offered some points to consider when allocating future funding that will help lower-performing schools better serve their students.

Because there were no data presented in the study, it was not possible to understand what the scope of the recommendations made and how effective they would be. Further, it did, however, offer guidance and emphasized the importance of scrutinizing programs that

are to be sponsored in the future.

In a study by Jayakumar, U. M., Vue, R., & Allen, W. R. (2013) the researchers studied the effects of a college-matriculation program in Los Angeles known as Young Black Scholars(YBS) that was created in response to the lack of progress African-American and other minority students were making toward university preparation and successful completion. Jayakumar et al. (2013) utilized Yosso's theory of cultural capital, as a theoretical framework for YBS in which academic enrichment and social support was put in place for the participants and furthermore, the idea of advancing their education as a form of fighting oppression. The following research questions were addressed: What are the places of congruence and dissimilarity between community programs and school college-going cultures and processes for middle or higher-income YBS matriculants to 4-year institutions? How does participation in community programming shape the college going process experienced by these students?

YBS specifically relied on the community's cultural wealth to offer its resources to the participants. Furthermore, two major barriers that were discussed included cultural relevance and tracking. Cultural relevance (Wiggan, 2008), or the lack of, refers to the idea of classroom curriculum, pedagogy, and values that are oppressive to minority students and thus forcing students to abandon their own cultural beliefs.

The second barrier referred to as tracking (Oakes, 2005) is referred to as a systemic form of categorizing minority students and limiting their access to university-level curriculum. Jayakumar et al. (2013) argued that before the completion of high school, minority students were already put at a disadvantage by being placed in more remedial classes in comparison with White and Asian students.

In the study, 25 African-American students from middle-to-high income range participated in YBS where YBS members collaborated with families, counselors, and other school staff to offer additional college-related support with SAT testing, college visits, and debunking negative self-images that African-American students might have of themselves. The qualitative results were based on student interviews in which the participants acknowledged that their aspirations to attend college increased and that their feelings and cultural significances were validated and valued as a result of the program. As such, the authors used the term "resistance capital" as a form of resistance to oppression by striving for success and opposing the status quo.

In conclusion, the study recommended that disadvantaged communities get involved at the high-school level and provide additional support. Furthermore, schools should look at opportunities to validate and diversify their curriculum, the pedagogy and be more inclusive by creating specifically designed college pathway programs to meet the needs of the diverse student population. The study took on a more positive perspective by not focusing on the deficits that exist within the first-generation population, but rather what type of support structures, specifically from the community, could actually benefit first-generation students.

In an article by Berumen, J., Zerquera, D., & Smith, J. (2015), the researchers studied the effects of an early-intervention program known as The Twenty-First Century Scholars Program (TFCSP). This program was created in 1990 through an Indian Legislative process and was aimed at serving underserved students from middle school to college with the aim of providing specialized college preparation, academic support and, once admitted to college, support toward successful transition with financial aid, continued academic support and guidance. The study sought to address the experiences of the

participants of TFCSP within college and to what extent this intervention program supported the transition to college. Beruman et al. (2015) addressed these questions mainly by looking at the role of financial aid and student transitional experiences as support services toward affecting the success of participants. Because financial aid alone cannot address the social barriers that exist, transitional experiences were studied through a social and cultural capital theory framework. According to Coleman (1988), students accumulate capital through the exploration of college-readiness topics. In addition, Tierney and Hagedorn (2002) posed that first-generation college students were also at a disadvantage as they did not receive the same level of support in the home as their counterparts.

Furthermore, Beruman et al. (2015) argued that there was minimal coordination for this population on behalf of high schools and colleges in providing assistance with imperative transitional support services. Further, it was argued that without such services, students were automatically placed at a disadvantage.

The methodology of the study consisted of interviews with college administrators and focus groups that included TFCSP students. Based on the interviews, it was concluded that a greater commitment needed to be made toward transitional services by fully funding the program for historically underserved students. Further, a sincere effort should be placed on collaboration by all stakeholders in the transition process to insure that students are offered an equitable chance at success at the college level and that resources are distributed to fulfill the needs of this specific student population. In addition, officials should find ways to seek out such students for referral, as well as allowing the opportunity for students to self-refer.

The findings of this study were obviously broad and were qualitative, with no data to

look at the specific effects that this program may have had on students. Further, it does contribute to the literature on how important it is for organizations to take on a lead role of supporting the needs of this population. Further it does emphasize the need to take into account the deficit model and not put all the responsibility on the student, rather the school system could look at ways they can accommodate first-generations students.

In a study by Benmayor (2002), the researcher interviewed 63 first-generation university students who were from various ethnic backgrounds. The interviews involved topics of transition to college, financial aid, cultural identity and career aspirations as they pertained to this population and were of significance. The participants responded in a story-like manner and gave life to their personal insight on their journey to college and how they got there and where they plan to go. What was most prevalent from these interviews were parental guidance, caring teachers and additional support programs that specialized in serving disadvantaged and minority students. Furthermore, the participants felt that the these factors helped them gain self-confidence, and an entitlement to higher education and to future generations.

In analyzing the interviews, Benmayor referred to both Cultural Citizenship and Cultural Responsibility, where emphasis and understanding the cultural factor involved in a student's educational endeavor as a theoretical frameworks to help guide the study. Within the education literature, empirical studies on first-generation students generally focus on issues of access, cognitive development, performance, persistence, outcomes, and class mobility.

Further, these two theories were contrasted with Howard London's (1995) contention that "the cultural challenges faced by first-generation students are not limited to

the classroom, but include the difficulties of redefining relationships and self identity." Benmayor (2002) argued that London's theory takes on a deficit-model approach that follows the logic that student's culture is a major deficit that the student needs to relieve himself or herself of. Further, Benmayor (2002) argued that new frameworks are needed to more accurately capture the first-generation experience. The need for peer tutors, role models, and family are essential to the progress of first-generation students, specifically those of Hispanic background. More so, this population is not looking to seek a new identity, but rather keep their culture roots intact, enriching their own communities by giving back.

Although this study did not provide any statistical data, the qualitative analysis added to the existing literature on the uniqueness of first-generation students, their struggles and the need to continue studying this population.

In a study by DeAngelo (2016), the researcher sought to examine first-year retention with a focus on the role of social-status background factors within students of various levels of college readiness. Because disadvantaged students enter college less prepared, the chances of attrition are much higher (Adelman, 2006). Although this concept is clear, it is not clear what role social-status background has on student achievement. As a result, this study compared first-year retention for both college ready and students who are less college-ready and the relationship with social-status background.

Utilizing status attainment theory and college readiness theory as the theoretical background of the study, freshman survey data were drawn from the 2004 dataset collected by UCLA and from the National Clearing House. Over 200,000 students from three hundred and fifty-six 4-year universities were collected. Based on a set criteria, 41% of the students

were considered college-ready whereas the remainder were not. The findings indicated that not all first-generation, low-income students had the same rates of attrition. Less college-ready students who were also non-first-generation and of high-income background were still at an advantage than their counterparts who were also less-college ready. Finally, the data indicated that college-readiness does play a major role in the chances of retention on the student. Therefore, it was implied that students who are less college-ready, low-income, first-generation are at a disadvantage; therefore, the recommendations were that universities need to have structures in place to address these deficiencies in order to lower the rate of attrition.

Overall, the study's dataset was quite large and the findings were quite practical for universities to discuss and continue to focus on serving this unique population. The findings of this study does connect to the overall theme that has been mentioned on several occasions, which is that supports need to be in place at both the high-school level to assist students in becoming college-ready and at the post-secondary level for a smooth transition to occur. Specifically, the first year being most critical as that is where the highest level of attrition occurs.

Summary

This literature review sought to explore current research on the lack of progress first-generation students are making. First-generation students face many barriers including social, academic, financial, and family support in comparison with non-first-generation students. Researchers such as DeAngelo (2016), Benmayor (2002), and Jayakumar et al. (2013) have been looking at this issue from all angles including socioeconomics, history, social justice, culture, and institutionalized theories. Unfortunately, there has been more disagreement among the various fields of study with minimal common ground. In addition, there are no existing counseling programs being implemented to address these issues.

Past research such as Jayakumar et al. (2013) indicates that academic institutions can do more and should provide proper interventions that are more supportive and helpful toward the success of first-generation students. Numerous studies by Tierney, Colyar, & Corwin (2003) and Lent et al. (2000) found that even the basic interventions on college awareness and self-efficacy can show small, but important improvements for first-generation students that should indicate to lawmaker and administrators that an ongoing discussion should happen toward interventions that support first-generation students. Specifically, the research points to the counselor as a primary catalyst for change (Farmer-Hinton, 2008). Because of the unique position counselors are in, they can potentially be at an advantage to be an important entity that could lead and implement school-wide change to benefit first-generation students.

For the purposes of this study, a high-school counseling program that targets barriers first-generation students face upon entering college was created. The program targeted ninth graders and offered a 4-week intervention on college readiness lessons focusing on

contextual skills, awareness, and academic behaviors, as defined by Conley (2012). One-hour lessons, three times per week were provided as an opportunity for indepth discussions that were intended to aspire greater interest on college-related content, allowing students to aspire to higher academic standards, and dispel negative perceived barriers. Pre and post questionnaires were administered to investigate the effects of the counseling program on student perceptions related to first-generation students barriers.

CHAPTER III

RESEARCH METHODOLOGY

The purpose of this study was to examine the effectiveness of a counseling program for ninth-grade first-generation students. The counseling program was designed to introduce topics related to college and career with the intent of increasing student's aspirations and self-efficacy, dispelling perceived barriers, enriching their knowledge of the college application process, and course selection. The following areas were measured: aspirations, self-efficacy, perceived barriers, knowledge of the college admissions process, and course selections, conceptualized as an application test indicating increased knowledge of the college-application process.

This chapter has four sections. Section one presents the research design and setting of the study. Section two gives the details of the 13-item questionnaire that was utilized as the instrument to measure the pretest and posttest variables. Section three describes the 12-hour-long counseling program on college-related topics taught to the treatment group. Additionally, the curriculum the comparison group received is described. Section four provides the data analysis that was utilized to compute the statistics comparing the treatment and comparison groups.

The following research questions were addressed:

1. What changes occurred in first-generation student aspirations to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

2. What changes occurred in first-generation student self-efficacy to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
3. What changes occurred in first-generation student perceived barriers to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
4. What changes occurred in first-generation student knowledge of the college application process to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
5. What changes occurred in first-generation student course selection to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students? Did future course selections fit the college requirements better for students attending the program than students not already in the counseling program?

Research Design

A two-group pretest-posttest research design was used over a period of 4 weeks. The same questionnaire instrument was used to collect data from the participants prior to the implementation of the counseling program and again right after the program. A comparison group composed of similar first-generation students received the normal curriculum that did not contain information on the college-application process. The rationale was to measure the effects of the treatment on student's aspirations, self-efficacy, perceived barriers, knowledge of the college admissions process, and course selection, as a result of participating in the

counseling program. According to Fink (2012), questionnaires are best when you need information directly from people about what they believe, know, and think.

Setting

The setting was at a comprehensive public high school serving over 1,800 students, located in a suburban area of San Francisco with a population of 85,000. The area's median family income is $100,000, median home price is $600,000. The school ethnic make up is 53% European-American, 30% Hispanic-American, 15% Asian-American and 2% African-American. Thirty percent of graduating seniors attend 4-year colleges, and 50% attend 2-year colleges. The school is on a trimester system or a 3-term school year. Each term includes five periods and is the equivalent of a semester, which is possible because class periods are extended to meet the instructional minutes set by the state. Therefore, students have the potential to take 1.5 years of coursework in a school year. Most do, whereas some students opt to have a shorter school day or graduate one to two terms earlier.

In addition, the graduation rate is 95%, and course offerings include 17 Advanced Placement courses and 7 Honor's courses. Furthermore, the 2016 senior class was made up of 408 students, where 57 seniors earned above a 4.00 grade point average (GPA). This school is considered high performing and far exceeds the state averages.

Sample

The site's student body is made up of a diverse population of students from different ethnic and socioeconomic backgrounds. The sample for this study were first-generation high-school students in the ninth grade at the time of the study. This information about students being first-generation or not was obtained from a district report that was generated

at the beginning of the school year to identify incoming freshmen first-generation students. The data came from enrollment questionnaires completed by families.

Students whose parents indicated having completed only high school, no high school, or some college were identified as first-generation students. At the beginning of the school year, in August of 2016, 212 students were identified as first-generation students from the entire list of 484 ninth-grade students. Utilizing convenience sampling, 88 first-generation students were placed in either the comparison group or the treatment group of a required freshman course that began in December of 2016 and took place during first and second period of the second trimester.

Although 118 students participated in the program, 88 were first-generation students with 47 participating in the comparison group and 41 participating in the treatment group (Table 1). Thirty non-first-generation students participated in the program as scheduling constraints made it impossible to create pure sections made of only first-generation students.

Table 1
Total Number of Students in Treatment and Comparison Group

Group	First Generation	Non-first-Generation	Total
Comparison	47	12	59
Treatment	41	18	59
Total	88	30	118

All incoming freshman are required to take the Freshmen in Transition (FIT) course that provides support and resources for all freshman. The school's 2016-17 Course Catalog description states, "The Freshmen in Transition (FIT) course is designed to assist incoming freshmen in their high-school career. Students are introduced to many topics that aid them in being more successful that include completing a 4-year plan designed to help them achieve their postsecondary goals. Students also explore personal aspects that affect their high-

school career from study skills and organization to communication and budgeting. This course offers academic support and introduces student to the vast amount of resources provided by the school, including minimal college-readiness curriculum. It is offered in all three trimesters during the year and is taught by a variety of teachers."

From the first-generation student list, students were grouped into the second trimester of the school year that started on December 1, 2016 and ended on March 12, 2017. Because class sizes are limited to 33 students per section, 2 FIT sections were identified as the experimental group. These sections were scheduled during first and second period and were taught by Teacher A (see Table 2). During the same course meeting times, two sections were created as comparison groups taught by Teachers B and C, as shown in Table 2.

Table 2
Number of Students in the Four Class Sections

Teacher	Period	Group	*f*	%
A	1	Treatment	27	22.9
A	2	Treatment	32	27.1
B	1	Comparison	27	22.9
C	2	Comparison	32	27.1
Total			118	100.0

The frequencies and percentages of the various ethnicities of all the students who participated in the study are found in Table 3. Most research has been conducted with urban students, English Language learners, and minority students. This sample is unique in that the majority students are of European-American students.

The frequencies and percentages of the gender of all the students who participated in the study are presented in Table 4. The distribution of gender of the sample was close to

even in the treatment group, whereas in the comparison group there were slightly more females than males.

Table 3
Ethnicity of First-Generation Students

	Treatment		Comparison	
Ethnicity	f	%	*f*	*%*
Asian-American	6	14.6	9	19.1
European-American	22	53.7	19	40.4
Latin-American	5	12.2	19	40.4
African-American	7	17.1	0	0.0
Other	1	2.4	0	0.0
Total	41	100.0	47	100.0

Table 4
Gender of First-Generation Students

	Treatment		Comparison	
Gender	f	%	*f*	*%*
Male	21	51.2	20	42.6
Female	20	48.8	27	57.4
Total	41	100.0	47	100.0

Protection of Human Subjects

This study had minimal ethical concerns. The questionnaire administered to all students did not ask questions that were too sensitive, rather questions focused on common ideas that are discussed in most academic counseling conversations. These topics included student's reflection on their aspirations, self-efficacy, perceived barriers, knowledge of the college admissions process, and course selection.

Demographic information, such as GPA and parental background information, including education levels, salary, and marital status add a degree of sensitivity. Therefore, students were not asked to disclose any of this information as it is not only sensitive but also irrelevant for the purposes of this study, as the students were already identified as first-

generation students. Other than the factors mentioned above, no other ethical considerations were identified.

Final approval from Institutional Review Board (IRB) was granted on December 15, 2016. Consent forms included the name of the organization and researcher, a brief description of the purpose, a statement as to the confidentiality of the responses, and assurance that participation was voluntary and that any question could be omitted. Informed consent forms were distributed to all students who participated. Although all students participated in the counseling program, data were collected for students who returned their consent forms signed by a parent or guardian.

Instrumentation

The 13-item questionnaire (see Appendix A) constructed by the researcher measured five areas: student aspirations, self-efficacy, perceived barriers, knowledge of the college admissions process, and course selection. The items were presented in a variety of formats, including open-ended items, Likert-type items with rating scales, and multiple-choice items. Items 1 to 5 measured aspirations, and item 4 used a 5-point Likert-type scale ranging from "no support" to "supportive." Item 6 measured aspirations and was comprised of nine 5-point Likert scale items. Item 7 measured perceived barriers and consisted of twelve 5-point Likert scale items. Items 8 through 12 measured knowledge of the college admissions process and consisted of multiple-choice and fill-in-the-blank items.

Finally, a 10th-grade course registration form was included to study the effects of the counseling program on course planning, specifically, to observe if students would have a better grasp of how to create a program of study geared toward 4-year university admissions following the program.

The items on the questionnaire were obtained from a set of items included in various first-generation and college-readiness questionnaires. In addition, the questionnaire was reviewed by the school administration, the researcher, and a counselor at the school to ensure that the questionnaire items were consistent with information that the general population of non-first-generation students may be familiar with or have access to.

Furthermore, in order to provide evidence of reliability for the Likert items, a pilot study was conducted on December 12, 2016, a week prior to administering the initial questionnaire. The pilot study consisted of 21 first-generation students who were selected using convenience sampling, but who were not part of the study, and were asked to complete the pilot questionnaire in the counselor's office. Students were called out of class in groups of five, and data were analyzed after all students returned their signed consent forms. Cronbach coefficient alpha was obtained for item 6 that had a reliability estimate of .80 and item 7 had a reliability estimate of .91.

Data Collection

The initial questionnaire was administered on December 21, 2016 prior to Winter recess and during the 4th week of instruction of the second trimester. Each student participated in the questionnaire that took about 20 minutes to complete. The same post-questionnaire was then administered again on February 2nd, 2017, 4 weeks after the counseling program were started using the same format. Students were assigned a unique identifier so that each student's progress could be tracked before and after the intervention program. For example, utilizing attendance rosters for period one of the treatment group, students were labeled "P1-1" for the teachers last name initial "P," then 1 for period 1 and "1" for the first student listed on the attendance roster. The second student was labeled "P1-

2" and so on. Questionnaires were handed out to students based on their unique identifier using an attendance roster. The postquestionnaires were labeled utilizing the same format. Students who were absent were followed up with on the next day that they arrived back at school.

Treatment-and Comparison-Group Program Description

In addition to the curriculum provided in the FIT course, the treatment group received 12 lessons that included an indepth focus on college-related topics. Each lesson was approximately one hour in length and consisted of a combination of instruction, student activities, and peer class discussion. Each lesson began with taking attendance, then a 3- to 5-minute recap of the prior day's lesson, and students were given an opportunity to ask any clarifying questions. Second, the learning objective for the new lesson was announced and an introduction was made. Following the lesson, students were encouraged to complete assigned student activities, then share their ideas with a partner, followed by a class discussion where participants shared their ideas with the entire class.

There were no lessons on Mondays and Fridays. Lessons were taught on Tuesdays, Wednesdays, and Thursdays, by the researcher. It was thought that having the researcher teach the course would allow for a deeper relationship and understanding to be developed, where the students had the opportunity to not only learn about college-related topics but also understand the importance of developing relationships with school staff to consult for the remainder of their high-school careers and in college. Therefore, the effect of the researcher teaching the course added to the group discussion.

Table 6 outlines the construct of each lesson. Specifically, during week one, the first lesson was devoted to career and major exploration. There are several online tools that are

able to match student survey responses to appropriate careers and majors. For this lesson, both Bigfuture, which is sponsored by CollegeBoard.com and CaliforniaColleges.edu were utilized by students to explore and learn about their potential future careers and college majors based on their survey responses. In addition, these website tools also match students to different universities based on constraints set by the student.

Table 6
Lesson Plan Overview

Day	Week 1	Week 2	Week 3	Week 4
Tuesdays	College/Major/Career Exploration	A-G Requirements	Transfer Vs. Freshman	Course Catalog
Wednesdays	UC Vs. CSU	Testing Requirements	Application Tutorial	Time-management
Thursday	Virtual Campus Tours	Extra-Curricular Activities	Financial Aid	4-Year Plan

The second lesson was focused on studying the University of California and California State University official websites. These two websites are extremely important to be able to navigate through because they include the admission applications, requirements, and other pertinent information that are updated on a yearly basis. Therefore, students must be able look to these sites independently to grasp correct and first-hand knowledge.

Exploring university campuses using virtual tours provided by each institution was the focus of the third lesson. The purpose of this lesson was to familiarize students with the variety of campuses that exist ranging from population size, geographic location, major offerings, and so on. Students could then begin to contemplate types of campuses that would match their areas of study as well as environmental preferences. The following campuses were explored. First, a virtual tour of the University of California Santa Barbara was shown to highlight the beautiful campus and the academic rigor involved in the daily lives of the students. Second, a virtual tour of California State University East Bay was shown to

highlight nearby schools that are within proximity of possibly visiting. Third, a virtual tour of the University of San Francisco was shown to introduce the concept of private schooling as well.

During week two, the fourth lesson included course requirements for college admissions. The California public university systems, the California State University and University of California, require all freshman applicants to complete a specific number of courses in certain subject areas. These courses are referred to as the "a-g" course requirements because of the letter pertaining to each subject. The "a" is History/Social Science, "b" is Language Arts, "c" is Mathematics, "d" is lab science, "e" is world languages, "f" is visual and performing arts, and "g" is college-prep elective. The intent of these requirements is to ensure students have a solid foundational background in the subject areas for which they can develop more once admitted into a university.

The fifth lesson was on the Scholastic Aptitude Test (SAT) and the American College Testing (ACT) testing requirements. The SAT is made up three sections: critical reading, mathematics, and writing. The ACT is made up of four sections: English, mathematics, reading, and science. The CSU system does not require the test if the applicant's grade point average is above a 3.00 and is a California resident. Certain impacted campuses and majors require a test score as a supplemental requirement. The UC system does require either the SAT or ACT to be taken regardless of the applicants GPA.

In addition to providing knowledge about the requirements entrance exams, study tips were offered. Specifically, Khan Academy recently partnered with the College Board to offer free preparation for the test. After students take the practice PSAT during their sophomore year, the results are sent to Khan Academy's database, where the results are

analyzed. Khan Academy then creates a study guide tailored to the student's areas of weakness.

The sixth lesson was on extra-curricular activities (ECA). These are those activities outside of the classroom that allow students to devote time to their talents, interests, and passions. Examples of ECA include being on a sports team, which then shows the student's ability to make a long-term commitment, organization, and collaboration. Doing volunteering or community service at a hospital, place of worship, or school shows that the student is dedicated to helping others. Serving in student body groups such as after school clubs would display similar characteristics previously mentioned. Students did investigate (ECA) opportunities available to them at their school and community and they planned how they would manage their time to allow for such activities outside of their academic responsibilities.

During the third week, the seventh lesson was on comparing freshman admission to a university and transfer admission from a community college. Students have different options to earn a 4-year degree. This lesson debunked many of the falsehoods that exist in the process of earning a bachelor's degree. Different routes work for different students, and this lesson helped provide a clear path both for transfer from a community college as well as going straight from high school as an incoming freshman.

The eighth lesson was on the application process for the UC, CSU, and private schools. Each system has its own method of accepting application, including different websites, supplemental application requirements, deadlines, and so on. Students practiced applying to college by doing a mock application in order to better grasp the importance and intricacies that come along with it.

The ninth lesson was on financial aid. The Free Application for Federal Student Aid (FAFSA), part of the U.S. Department of Education, was a result of the ESEA of 1965. It provides federal grants, loans, and funding for work-study programs to over 13 million students in assisting them to pay for college. Students were introduced to the costs associated with college that include registration, books and supplies, room and board, and so on. Furthermore, students explored grants, loans, scholarships, and work-study as a means to pay for college.

During week four, the 10th lesson had the students explore the high-school course catalog in detail. Navigating through each department and understanding the intricacies that come with reading a course catalog are beneficial to better understanding all that high school offers and how it may effect the student's future. In addition, a comparison was made with a local community-college course catalog. Explanations regarding labs, credits, prerequisites, and so on were discussed in detail.

The 11th lesson was on time management. In the ninth grade, students can benefit from learning to better manage their time among socializing, academics, and other responsibilities. It is imperative that they are conscious of how they spend their time in a day so that they can attend to their academic responsibilities. Therefore, this lesson had students look at their daily activities organized by each hour of the day in a pie chart format and explain how they spend their time. By visualizing their daily activities, they could better adjust to accommodate for their academic responsibilities.

The 12th lesson was to create a 4-year plan. Having developed a better understanding of the requirements for college admission, it is thought students will be able

to develop their plan to fulfill all the course requirements, testing requirements, and extra curricular activities.

For the duration of the 4-week treatment, the comparison group spent the first 2 weeks drafting an informative speech. The first week was used to brainstorm topic ideas, then to research topics on the Internet, select a topic, outline the introduction, and draft three main ideas and a conclusion. During week two, the students completed their outlines and rehearsed their presentations and then presented to the entire class. The treatment group had two days to work on this assignment.

During week three, the comparison group was taught about email etiquette. In this lesson, students explored various styles of writing emails. Specifically, students looked at the idea of responding to a job advertisement via email, where students were asked to construct an effective email that an employer would want to respond to. During week four, the students in the comparison group were taught about college and career. Specifically, they were to identify the academic counselors onsite, list the course requirements for college admission, exams require for college entrance, and credits required for graduation. Finally, students used the Internet to log onto Bigfuture.Collegeboard.com to search colleges based on specific criteria set by each student.

Procedures

The sample for this study was ninth-grade high-school students who were identified as first-generation students based on enrollment questionnaires completed by families.

Participants were placed in either the comparison group or the treatment group of a required freshman course known as Freshmen in Transition (FIT) that both took place during first and second period. Two FIT sections were identified as the treatment group.

These sections were taught by Teacher A (Table 2), whereas there were two sections created as a comparison group taught by Teachers B and C.

After final approval was granted on December 15, 2016 and signed informed consent forms were collected from the participants, administration of a 13-item questionnaire (Appendix A) took place prior to the treatment, measuring five areas: student aspirations, self-efficacy, perceived barriers, knowledge of the college admissions process, and course selection. A second administration of the same instrument was done again after the treatment ended.

For both the administration of the pretest and posttest, attendance rosters were utilized to handout questionnaires to students based on an assigned unique identifier. Absent students were followed up with on the next day that they came arrived back at school.

While the comparison group was provided the FIT course curriculum, the treatment group received 12 lessons that included a focus on college-related topics. Each lesson was approximately an hour in length and began with a short recap of the prior day's lesson, the lesson for the day, and concluded with a class discussion.

After all data had been collected, SPSS software was utilized to analyze the responses of participants using independent-samples *t* test, chi-square, means, standard deviations, degrees of freedom, and frequencies and percentages of change between the treatment and comparison groups.

Data Analysis

There were five pretest and posttest variables: aspirations, self-efficacy, perceived barriers, knowledge of the college application process, and course selection. Only two items had limited missing data on the pretest and on the posttest only three items were missing a

few values. As a result of the low amount of missing data, missing items were replaced with the mean of that item.

Analysis was done using independent-samples *t* tests, means, standard deviations, chi-square test, and cross tabulation of frequencies and percentages using SPSS version 21. Specifically, for items 1, 2, and 4 measuring aspirations, crosstabs were obtained to compare frequencies and percentages for the treatment and comparison group between pre- and postresults.

For item 3, responses were categorized into four categories, namely, careers that require a bachelor's degree, careers that do not require a bachelor's degree, "become famous," and "do not know." The rationale for this categorization was because the literature suggested first-generation students as generally either aspiring too high where they had their goals set to become a professional athlete or movie star, or too low, where they aspired toward a career that required no college degree. Therefore, it was important to investigate if there was any impact on these perspectives as a result of the treatment.

Item 5 was an informative question that was analyzed by computing frequencies and percentages to look for entities that had influence on students' college aspirations. The assumption was that no entity was influential in aspiring first-generation students to go to college. However, the goals of the treatment were to show that school staff could perhaps take on a lead role and be a source of aspiration to attend college after high school.

For items 6 and 7, measuring self-efficacy and perceived barriers, means, standard deviations and independent-samples *t* tests were computed. For item 8, which asked about the number of years required in specific subject areas to be eligible for college admissions, the responses were combined into a composite score and were scored as either correct or

wrong. A separate variable was created to indicate a "0" as all correct and "1" as wrong. Item 9 was informative and asked about whether participants had ever visited a college campus. Frequencies were computed to view any changes, as well as a chi-square test was computed to test for statistical significance.

Item 10 was about specific testing requirements for college admissions. A new variable was created to indicate whether all the responses were correct or wrong. A separate variable was created to indicate a "0" as completely correct and "1" as wrong.

Item 11 was an informative item that asked participants how many advanced placement (AP) courses students would take throughout high school. Frequencies were computed to look at both negative change, no change, and positive change. Finally, a chi-square test was computed to test for statistical significance.

Item 12 was a measure of college knowledge and asked about the cost of attending three types of postsecondary institutions, including community college, the CSU, the UC, and private colleges. A new variable was created to indicate whether the responses to tuition costs were in ascending order, meaning that community colleges were the least expensive and private schools were the most expensive. If they understood this concept, then responses were considered correct, as they had some fundamental understanding about tuition costs for different types of institutions. Then, a second variable was created using ranges of cost. Because it is difficult to declare an actual amount for tuition, a specific range was calculated to use. For community colleges, if the response was $300 to $2,999, and for CSU, the response was $3,000 to $9,999, and for UC, the response was $10,000 to $24,999, and for private schools, the response was $25,000 and above, then it was indicated that the participant understood the fundamental idea that each type of postsecondary organization

had a tuition that fell within a specific range. A student responding in the correct range was assigned a "1," otherwise a "0."

Finally, a composite score was computed using items 8, 10, and 12 and was labeled achievement variable. The variable included computed means, standard deviations, and independent-samples *t* tests for the differences between pretest and posttest for the treatment and comparison groups.

Item 13, the 10th-grade student course registration for the following year was examined for the selection of more rigorous course work including advancement placement (AP), honors, and other courses that are ones toward meeting the requirements for college admission and career. Taking the initiative to challenge oneself by taking these advanced courses, would be of great importance to the research and would indicate that students are aspiring to do better and are motivated as well. For item 13, the 10th-Grade Registration, a new variable was created in SPSS. Either the student selected a course program that was in line with A-G college admissions requirements or it was not.

According to the College Board (2016), AP courses study topics in greater detail, are immersive allowing students to apply their deeper knowledge to other subject areas, more expression of ideas through debate and deeper discussion in class, having a sense of what college-level academics are really like, and also set personal goals and learn about one's own strengths and weakness. Finally, the interaction with high-caliber peers on a regular basis where college topics are more prevalent would only enrich the "privileged knowledge" that so many first-generation students lack. In addition, the rewards are well worth the effort as AP allows students the opportunity to earn college credit, take on the rigor of college-level courses, and improve their grade point average, which would increase a student's

chances of gaining admission to college. Finally, a chi-square test was computed to test for statistical significance.

Table 7
Summary of Areas Measured, Item Types and How Scores were Computed

Areas and Items	Item Type	How measured
Aspirations		
Items 1, 2, 4	Multiple choice	Higher score corresponds with higher aspirations
Item 3	Open-ended question	Responses categorized
Item 5	Likert Scale	Higher scores correspond to positive response
Self-Efficacy		
Item 6	Likert Scale	Higher scores correspond to positive response
Perceived Barriers		
Item 7	Likert Scale	Higher scores correspond to negative response
College Knowledge		
Item 8	Open-ended question	Composite score computed as either all correct or incorrect.
Item 9	Dichotomous	Informative
Item 10	Multiple Choice	Composite score computed as either all correct or incorrect.
Item 11	Multiple Choice	Either correct or incorrect
Item 12	Open-ended question	Two scores computed: Range, Ascending order
Tenth-Grade Registration		
Item 13	Multiple Choice, Open-ended question	Composite score computed: A-G track or non-A-G track.

Qualifications of the Researcher

The researcher is a high-school counselor in the San Francisco Bay Area and has complete access to student records including parental communication and administered the college-readiness intervention. In addition, the researcher is a first-generation student who immigrated to the U.S. from Afghanistan in 1982 at the age of one with his family, as a

result of war. The researcher found this study important to his professional career as well as his own personal life as it pertains to his own experiences as a first-generation student.

CHAPTER IV

RESULTS

This chapter presents the findings of the counseling program, the data analysis related to the five research questions, descriptive statistics, and a summary. A total of 122 students participated in the study, where 88 were identified as first-generation students. Of the first-generation students, 41 participated in the treatment and 47 participated in the comparison group. Quantitative data were collected from the pre and post questionnaires in order to study the potential effects of the counseling program that was implemented over a period of 4 weeks. All statistical analyses for the five research questions, including independent-samples *t* tests, were conducted at the .05 level of significance.

The following research questions were addressed:

1. What changes occurred in first-generation student aspirations to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
2. What changes occurred in first-generation student self-efficacy to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
3. What changes occurred in first-generation student perceived barriers to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
4. What changes occurred in first-generation student knowledge of the college-application process to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

5. What changes occurred in first-generation student course selection to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students? Did future course selections fit the college requirements better for students attending the program than students not already in the counseling program?

For each research question below, tables include the means, standard deviations, frequencies, percentages, and independent-samples *t* tests for both the treatment and comparison group and for both pretest and posttest questionnaire results.

Research Question 1

What changes occurred in first-generation student aspirations to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

Research question one, on aspirations, was addressed by questionnaire items 1 to 5. Table 8 presents the frequencies and percentages for change between the pretest and posttest of the comparison group and the treatment group for items 1 to 4. The differences between the pretest and posttest were investigated. Because the differences were minimal for statistical analysis, the differences were collapsed into negative change, no change, and positive change. In all groups, the majority of responses showed no change. Further, item 4 showed 73.2% no change, and responses that increased by one were 9.8% and responses that decreased by one were 7.3%. These results were similar for items 1 and 2. For item 2, the treatment group showed no change for 48.7% of the participants and increase of 26.8% as well as a decrease of 24.4%. Interestingly, the comparison group and treatment group

showed almost identical results. Finally, chi-square test was computed and showed no statistical significance as a result of the treatment.

Table 8
Frequencies and Percentages for Change in Aspirations for Treatment and Comparison Groups (Items 1-4)

		Treatment		Comparison	
Item	Change	*f*	%	*f*	%
1. How far would you like to go in school?	Negative	9	22.0	13	27.6
	No	25	61.0	25	53.2
	Positive	7	17.0	9	19.0
2. How far do you think you will go in school?	Negative	11	26.8	14	29.7
	No	20	48.7	22	46.8
	Positive	10	24.4	11	23.4
3. What kind of work or occupation would you like to do when you finish school?	Negative	6	16.2	6	15.4
	No	24	64.9	26	66.7
	Positive	7	18.9	7	17.9
4. Please rate the degree to which you want to go to a 4-year college after high school?	Negative	6	14.6	7	14.9
	No	30	73.2	33	70.2
	Positive	5	12.2	7	14.9

Table 9 presents the findings for item 3. Responses to the item were open ended as students were asked, "What kind of work or occupation would you like to do when you finish school?" The responses from the participants show an array of career aspirations; the most popular careers in the pretest for the comparison group were to become a doctor, and for the treatment group, the most popular career was to become a professional athlete.

The findings for item 4 that showed the changes in frequencies and percentages between the pretest and posttest for the treatment and comparison group are found in Table 8. Over 70% of the responses in both groups did not change, and the ranges were almost identical. With the exception of item 4 in the comparison group, which showed no change, all three items showed more negative change than positive change after the treatment. Furthermore, the majority of students showed no change in any of the items. No other major shifts were noted. Chi-square test were not statistically significant.

Table 9
Frequencies and Percentages for Treatment and Comparison Groups for Career Aspirations (Item 3)

	Pretest				Posttest			
	Treatment		Comparison		Treatment		Comparison	
Career Aspirations	*f*	%	*f*	%	*f*	%	*f*	%
Requires a 4-year degree	12	29.3	17	36.2	11	26.8	19	40.4
Doctor/Scientist	4	9.6	10	21.3	3	7.3	10	21.3
Attorney	2	4.9	0	0.0	1	2.4	1	2.1
Engineer	1	2.4	2	4.3	0	0.0	1	2.1
Nurse	2	4.9	1	2.1	3	7.3	3	6.4
Teacher	0	0.0	4	8.5	1	2.4	2	4.3
Psychologist/Mental Health	1	2.4	0	0.0	1	2.4	1	2.1
Writer/Journalist	2	4.9	0	0.0	2	4.9	1	2.1
Does not require a 4-year degree	14	34.1	13	27.7	10	24.4	11	23.4
Mechanic	1	2.4	1	2.1	1	2.4	1	2.1
Law Enforcement/Military	4	9.6	0	0.0	4	9.6	0	0.0
Technology/Computers	0	0.0	5	10.6	1	2.4	5	10.6
Retail/Business	4	9.6	4	8.5	3	7.3	3	6.4
Designer	2	4.9	1	2.1	1	2.4	2	4.3
Arts	3	7.3	2	4.3	0	0.0	0	0.0
To become famous	11	26.8	5	10.6	6	14.6	1	2.1
Professional Athlete	8	19.5	4	8.5	5	12.2	0	0.0
Movie Star/Entertainer	3	7.3	1	2.1	1	2.4	1	2.1
Do not know or No response	4	9.6	12	8.5	12	29.3	16	34.0
Total	41	100.0	47	100.0	41	100.0	47	100.0

To explore the open-ended responses to item 3 more, the student's careers were categorized into the following four categories: requires a 4-year university degree, does not require a 4-year university degree, "become famous" and "do not know." No statistically significant changes occurred as a result of the counseling program for students who responded to aspiring to careers that require a 4-year university degree. There was a shift in responses to "becoming famous" as the responses decreased from 26.8% before the treatment to 14.6% after the treatment. The comparison group responses also dropped from 10.6% to 2.1%. Furthermore, there was an increase in responses to "do not know" in the treatment group from 9.6% to 29.3% and from 8.5% to 34% in the comparison group.

Table 10
Frequencies and Percentages for Treatment and Comparison Groups for Career Aspirations (Item 3)

	Pretest				Posttest			
	Treatment		Comparison		Treatment		Comparison	
Career Aspirations	*f*	%	*f*	%	*f*	%	*f*	%
Requires a 4-year degree	12	29.3	17	36.2	11	26.8	19	40.4
Does not require a 4-year degree	14	34.1	13	27.7	10	24.4	11	23.4
To become famous	11	26.8	5	10.6	6	14.6	1	2.1
Do not know	4	9.6	12	8.5	12	29.3	16	34.0

A Likert-scale response was utilized for item 5 asking students, ”If you want to go to college, please rate the extent to which the following has been supportive of you attending college.” Table 11 also reports changes between the pretest and posttest for both the treatment and comparison group. These findings were focused on the influence of the teacher or counselor. The research emphasized the importance of school staff, specifically, the counselor as a potential agent for change as they are in a strategic role to influence the school climate, administration and other stakeholders. The counseling treatment had little effect in becoming an influential figure toward aspiring participants to go to college with only 23.7% showing a positive change and 23.7% showing a negative change. Furthermore the comparison group showed a positive change of 37.2% and a negative change of 9.3%. Chi-square tests were not statistically significant.

Research Question 2

What changes occurred in first-generation student self-efficacy to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

Table 11
*Frequencies and Percentages for Change in Those Supportive of College for Treatment and Comparison Groups (*Item 5)

		Treatment		*Comparison*	
Person	Change	*f*	*%*	*f*	*%*
Parent/Guardian	Negative	3	7.5	6	12.8
	No	34	85.0	33	70.2
	Positive	3	7.5	8	17.0
Sibling	Negative	8	21.6	8	18.6
	No	24	64.9	19	44.2
	Positive	5	13.5	16	37.2
Other Relatives	Negative	10	25.0	10	22.7
	No	23	57.5	20	45.5
	Positive	7	17.5	14	31.8
Teacher or Counselor	Negative	9	23.7	4	9.3
	No	20	52.6	23	53.5
	Positive	9	23.7	16	37.2
Friends	Negative	7	179	6	14.3
	No	23	59.0	24	57.1
	Positive	9	23.1	12	28.6

Research question two addressed self-efficacy and consisted of questionnaire item 6 that included 9 statements utilizing Likert-type responses, which were summed and the means obtained for analysis. Table 12 provides the means, standard deviations, independent-samples *t* test, and degrees of freedom for treatment and comparison groups and for the pretest and posttest for self-efficacy.

Table 12
Means, Standard Deviations, Independent-Samples t-test Results, and Degrees of Freedom for Treatment and Comparison Groups for Change in Self-Efficacy (Item 6)

		Pretest		Posttest			
		Treatment	Comparison	Treatment	Comparison		
Variable	Statistic	(*n*=41)	(*n*=47)	(*n*=41)	(*n*=47)	*t*	*df*
Self-Efficacy	Mean	4.85	4.68	4.84	4.79	-0.90	86
	SD	0.68	0.73	0.69	0.84		

In comparing the means between the pretest and posttest, no differences were found. For example, in the treatment group pretest for self-efficacy a mean of 4.85 was computed

on a Likert-scale of 1 to 6, which means that, on average, the students responded positively to the having higher self-efficacy. In the posttest for the treatment group, the mean was 4.84 and was almost identical to the pretest. Further, all the findings indicated that the scores between the pretest and posttest were almost identical for the treatment and comparison group. Additionally, independent-sample *t*-test showed no statistical significance conducted at the .05 level of significance. Therefore, it could be concluded that the counseling program had little or no effect on student's self-efficacy.

Research Question 3

What changes occurred in first-generation student perceived barriers to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

Research question three addressed perceived barriers and consisted of questionnaire item 7, which included 12 statements utilizing Likert-scale responses, which were summed and the means obtained for analyses. Table 13 shows the means, standard deviations, independent-samples *t* test, and degrees of freedom for treatment and comparison for the pretest and posttest.

Table 13

Means, Standard Deviations, Independent-Samples t-test Results, and Degrees of Freedom for Treatment and Comparison Groups for Change in Perceived Barriers (Item 7)

		Pretest		Posttest			
Variable	Statistic	Treatment (*n*=41)	Comparison (*n*=47)	Treatment (*n*=41)	Comparison (*n*=47)	*t*	*df*
Perceived	Mean	2.23	2.22	2.14	2.35	-1.26	85
Barriers	SD	0.77	0.89	0.75	0.84		

In comparing the means, no differences were found between pretest and posttest. The items were negatively worded so that lower scores corresponded with higher scores or

lower perceived barriers. For example, the treatment-group pretest for perceived barriers was 2.23 on a Likert-scale of 1 to 6 and 2.14 for the posttest. Furthermore, all means were almost identical when comparing the pretest and posttest for both the comparison and treatment group. Therefore, it could be concluded that the counseling program had no effect on student's perceived barriers. In addition, independent-samples *t* test showed no statistical significance conducted at the .05 level of significance.

Research Question 4

What changes occurred in first-generation student knowledge of the college-application process to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

Research question four consisted of questionnaire items 8 to 12 addressing knowledge of the college-application process. Items 8, 10, and 12 investigated student knowledge of the college-application process, whereas items 9 and 11 were informative questions. Items 8, 10, and 12 were combined and a composite score was computed. Each item that was answered correctly was assigned a score of "1" incorrect items were assigned a score of "0." A score of "1" would signify that they had some basic understanding about the college-application process pertaining to that specific item. The three assigned scores were then combined to have a range score of 0 to 3. Students who answered all 3 items correctly earned a "3," and students who answered all items incorrectly earned a "0."

Table 14 presents the means, standard deviations, and independent-samples *t* tests for the composited college-knowledge score. The mean for the pretest of the treatment group was 1.34 and the posttest was 1.65, which showed a slight increase. Similar findings were found in the comparison group where the pretest had a mean of 1.15 and the posttest

was 1.40, which is a slight increase as well. In comparing all means between the pretest and posttest, no statistically significant differences were found.

Table 15 presents the results of item 9 and 11 that both measured using the frequencies and percentages of the comparison group and the treatment group for the pretests and posttest. First, frequencies and percentages were computed to look at the range of differences. Because the ranges were minimal, differences were collapsed into negative change, positive change, and no change. In effect, item 9 showed no differences in frequencies between the pretest and posttest. For item 11, the treatment group did show positive change of 31.7%, whereas the comparison group showed positive change of 23.9%. Additionally, negative change for the treatment was 22%, and the comparison showed a negative change of 34.8%. Therefore, the attempt by the counselor to encourage students to take on a more challenging coursework showed some positive change but not enough as a chi-square test was not statistically significance.

Table 14

Means, Standard Deviations, Independent-Samples t-test Results, and Degrees of Freedom for Treatment and Comparison Groups for Change in College Knowledge (Items 8, 10, and 12)

		Pretest		Posttest			
Variable	Statistic	Treatment (*n*=41)	Comparison (*n*=47)	Treatment (*n*=41)	Comparison (*n*=47)	*t*	*df*
College Knowledge	Mean	1.34	1.15	1.65	1.40	-1.06	79
	SD	0.88	0.74	0.95	0.99		

Research Question 5

What changes occurred in first-generation student course selection to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students? Did future course selections fit the college requirements better for students attending the program than students not already in the counseling program?

Table 15
Frequencies and Percentages for Treatment and Comparison Groups Change in Knowledge of the College-Application Process and the Tenth-Grade Course Registration (Items 9,11, and 13)

		Treatment		Comparison	
Item	Change	*f*	%	*f*	%
9. Have you been to a college campus?	Negative	6	14.6	6	12.8
	No	32	78.0	37	78.7
	Positive	3	7.3	4	8.5
11. How many Advanced Placement (AP)	Negative	9	22.0	16	34.8
courses do you expect to take?	No	19	46.3	19	41.3
	Positive	13	31.7	11	23.9
13. Tenth grade course registration	Negative	3	7.3	5	10.6
(A-G admissions requirements)	No	24	58.5	40	85.1
	Positive	14	34.1	2	4.3

Research question five consisted of the 10th-grade registration form assessing the ability of the participant to create a program of study that would satisfy university admission requirements. Table 15 reports the frequencies and percentages of change for the comparison group and the treatment group for the pretests and posttest. First, the 10th-grade registration form was scored using a composite score. A score of "0" referred to the participant as not able to create a 10th-grade plan of study that would satisfy the admissions requirements toward a 4-year university. A score of "1" represented the value that a student was capable of creating a 10th-grade plan toward admission to a 4-year university. In order to look at the effects of the counseling program, the number of student who changed in a positive, negative, and no change direction was calculated from the pretest to the posttest.

The treatment group demonstrated a 34.1% positive change for students who were able to create a plan of study for the 10th grade that satisfied the 4-university admission requirements. In the comparison group, there was a 4.3% increase in how many students were able to create a 10th-grade plan of study to satisfy the needs for 4-year university

admission. As a result, a chi-square test was conducted indicating statistical significance at the .005 level of significance.

Personal Observations of Researcher

In reviewing the researcher's logs of the daily interactions in the classroom, it was noted that lesson plans were completed as planned. During the first and second day of instruction, a small portion of the students were not on task and mildly disruptive. As a result, the researcher took on a more disciplinary approach until he gained rapport with the entire class. After these initial disruptions, most students were engaged, curious about college, and on task. Usually there was one or two students absent each day. These students were given the lesson during their lunch period on the day they returned to school. After giving each lesson, the researcher encouraged group dialogue and allowed students to discuss their ideas with each other in small groups. Observations were made by the researcher to ensure students were on task and discussing the topic at hand. As a result, students appeared open to sharing their ideas, as the environment allowed for it.

Another common issue that arose was that, although the students were engaged, their exercise worksheets that were collected showed many errors and were at times incomplete. For example, when the topic of comparing the University of California with the California State University system, many students could not mention three differences between the two systems even though the lesson made clear comparisons between the two systems with regard to admissions criteria, location, focus of undergraduate education, tuition, and so on. The idea of two distinct university systems was perceived to have been a new concept. Such misperceptions are typical for incoming freshman, and the implications may be that the

students were still trying to grasp the material and perhaps needed more time and individual attention.

Overall, approximately half of the students were well-engaged, curious, and showed interest in the topic of college, whereas the other half was either off task or just not as engaged as the researcher would have hoped for. For a typical freshman elective course, this type of scenario is quiet common and expected; however, it is worth noting the environment of the classrooms may have affected the results of the study.

Finally, after the counseling program had ended, it was observed by the researcher that students from the treatment group began approaching their counselors outside of class for additional information, whereas beforehand, these students were not likely to do so. Students seemed more eager to learn about school rules, course offerings, additional college information, and tutoring options. It could be interpreted that because of the student and counselor relationship that was created as a result of the counseling program, students sensed a higher degree of comfort and were familiarized with the process of seeking additional support from school staff and perhaps, allowing them to explore and become better informed of the systematic rules that exist.

Summary

Multiple analysis including computing means, standard deviations, independent-samples *t* tests, frequencies, and percentages were obtained to address each question item individually. Virtually all the comparisons demonstrated no differences between the two groups. Career aspirations did show some positive change. In addition, item 13, measuring 10^{th} grade course selection, was statistically significant.

CHAPTER V

SUMMARY, LIMITATIONS, DISCUSSION, AND IMPLICATIONS

This chapter opens with a summary of the study. Then, the limitations of the study are addressed followed by a discussion of the findings. Finally, the chapter ends with implications for research and practice.

Summary of Study

It has been well documented that the diversity in secondary education has been increasing steadily since 2000 (Terenzini, 1998). As a result, students whose parents did not complete a 4-year university education, namely "first-generation students," now make up 34% of freshmen at 4-year universities and half of the population at 2-year colleges. Unfortunately, first-generation students are twice as likely to drop out after the first year of college in comparison to non-first-generation students. Further, when combining low socioeconomic status (SES) and first-generation student status, these students are four times more likely to drop out of college than non-first-generation students (Choy, 2001). Ishitani (2006) found that lack of parental involvement in the college decision-making process was linked with higher drop out rates and one's own academic preparation and aspirations (Perna & Titus, 2005), which are connected to socioeconomic status, family cultural norms, influence of peers, and the school's role. It is obvious that the lack of success first-generation students are experiencing is of major concern, and a gap exists in better serving first-generation students.

There are various factors associated with the alarming rates of first-generation student's attrition in college. First-generation students tend to perceive themselves lower academically in the areas of mathematics, science, and language arts in comparison with

non-first-generation students (Gibbons, Borders, Wiles, Stephan, & Davis, 2006) and envision more obstacles (Gibbons & Borders, 2010). For instance, Engle, Bermeo, and O'Brien (2006) found that first-generation students generally believe that their high schools were not geared toward college preparation academically and that the expectations set by the schools were low, which in turn led many first-generation students to self-doubt and be less motivated (Próspero & Vohra-Gupta, 2007).

First-generation students enter college and are expected to adapt to an entire new culture that is made up of certain cultural norms, as well as many unspoken rules (Engle et al., 2006). It is common that first-generation students enter college being underprepared, have less self-esteem, and have low self-efficacy. Additionally, less family support is available to help guide them with the intricacies that come with being a college student (Murphy & Hicks, 2006).

One major factor for first-generation students is parental-educational levels. College enrollment, and retention rates are dependent on parental-educational levels (Ishitani, 2003). In addition, when both parents are college graduates, students tend to earn a higher grade point average (GPA) in comparison with first-generation students. Several reasons are given for why parent involvement is so influential. First, parents without a college background tend to have less financial resources, lack the knowledge necessary to better guide their students, and finally, parents find it challenging to relate with their student. Therefore, it is important that institutions get more involved in order to maximize the educational benefits of this population (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

As first-generation students transition into college, the experiences prove that they are at an uphill battle: the high need to enroll in remedial course work (Warburton, Bugarin,

Nunez, & Carroll, 2001), attend college part-time and earn lower grades (Pascarella et al., 2004). The sad truth is that first-generation students have been failed before ever entering college.

Even with the many obstacles that first-generation students are facing, recent studies are beginning to look at ways to counter this void and help first-generation students succeed. One theory in particular that was put forth by Conley (2008), namely College Readiness Theory, emphasizes the concept that the success of a college student is built upon a foundation of key cognitive strategies that enable students to learn content from a range of disciplines. Conley (2008) argued that college readiness is a vastly complex concept that is comprised of both internal and external factors. His model organizes college readiness into four concentric levels that include key cognitive strategies, key content, academic strategies, and contextual skills and awareness. For the purposes of this study, a focus was placed on contextual skills and awareness.

In a study by Dennis, Phinney, and Chuateco (2005), first-generation students favored peer support and mentoring as motivating factors toward college success, whereas Inkelas (2006) added that the family support system also had positive effects for first-generation students' college attendance and success. It has been noted by various researchers that the role of the family was influential in career planning, higher academic aspirations, higher self-efficacy, and overcoming perceived barriers through support (Germeijs & Verschueren, 2009). Social support is one major factor that has shown promising results, which should be studied more indepth.

This study examined the research on first-generation students and the problem that exists for them in successfully completing college and earning a bachelor's degree. A focus

was placed on the parent's education level as a major factor on whether a student could or could not earn a college degree. Students whose parents never completed a college degree faced many challenges including the lack of parental support and guidance, lower academic skills, low motivation, and the knowledge necessary to navigate the college-application process. As a result, dropout rates in college have been shocking and current practices have not shown much effectiveness in countering this problem.

In response, the literature pointed to school staff at the high-school level to address the needs of first-generation students by allocating appropriate counseling services to serve first-generation students, reaching out to parents and families to ensure that they fully understand the norms and expectations for college, and providing mentoring and guidance to first-generation students in order to help them be successful in the transition to college.

Although the recommendations made by researchers offer hope, there are no data on the potential effectiveness of offering such additional services focused on the needs of first-generation students. Research is still at its initial stages of addressing the problem that exists for first-generation students.

For the purposes of this study, it was determined that a counseling program focused on aspirations, self-efficacy, perceived barriers, knowledge of the college-application process, and course selection would be a comprehensive approach to serving the essential needs of first-generation students. The following research questions were addressed:

1. What changes occurred in first-generation student aspirations to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?

2. What changes occurred in first-generation student self-efficacy to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
3. What changes occurred in first-generation student perceived barriers to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
4. What changes occurred in first-generation student knowledge of the college-application process to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students?
5. What changes occurred in first-generation student course selection to attend institutions of higher education after the counseling program compared with the changes for non-first-generation students? Did future course selections fit the college requirements better for students attending the program than students not already in the counseling program?

The study took place at a comprehensive pubic high school located in the San Francisco Bay Area. The median average family household income is $100,000, and the ethnic make-up of the student population is 53% European-American, 30% Hispanic-American, and followed by other ethnicities that make up a smaller portions of the population. The school has a 95% graduation rate and 80% of the graduating seniors attend a 2-or 4-year college directly after high school.

A cohort of ninth-grade first-generation students was selected using district reports based on parent responses to registration information. If parents responded that they had not completed a university or college degree, then their student was considered a first-

generation student. Using convenience sampling, 41 first-generation students were placed into a treatment group, and 47 first-generation students were placed in the comparison group. Both groups were divided into two sections of a Freshmen in Transition (FIT) elective course. FIT is a mandatory freshman course that introduced students to high school with the intention of making the transition to high school smooth, as they are equipped with the necessary tools to be successful throughout their high-school careers. Students of diverse ethnic and social economic backgrounds were a part of both groups. The program was 4 weeks in length, consisting of counseling curriculum taught during one period, 3 days per week.

Overall, 12 lessons were taught to the treatment group. Each lesson opened with a clear objective and a review of the previous day's lesson that was included to help students connect prior knowledge to the upcoming lesson. In addition, curriculum was taught for 20 to 30 minutes and then students were allowed to work individually or in small groups. Finally, for the remainder of each period, students were to present their findings to the class. The purpose of sharing was so the class could gain insight into the many ideas, routes, and thought processes that are involved in making future decision with regard to college and career.

More specifically, the counseling-program lessons covered the following topics, for week one, students learned about college, familiarization with specific campus characteristics through virtual campus tours, and major and career explorations using various inventory questionnaires.

During week two, students learned about the A-G course admission requirements, testing requirements, and extra curricular activities that universities look for when an

application is filed. During week three, students learned about financial aid, admissions to university by way of freshman admissions, including a video tutorial, and transfer from a community college. During week four, students learned about the high school course catalog, time management, and completed a 4-year course plan for their entire high-school careers.

Data were collected using a questionnaire to assess students prior to the counseling program, and then the same questionnaire was administered to both groups to observe any type of effect that may have occurred as a result. The questionnaire had items pertaining to aspirations, self-efficacy, perceived barriers, knowledge of the college application process and course selection.

Summary of Findings

Using SPSS software, means, standard deviations, independent-samples *t* tests, frequencies, percentages, and crosstabs were obtained to examine the effects of the counseling program on the treatment group. The data collected allowed the researcher to look at aspirations, self-efficacy, perceived barriers, knowledge of the college-application process, and course selection, individually as each variable was associated with specific items on the questionnaire.

The study revealed three findings. First, the counseling program had statistically significant effects on course selection but not any other variable. The effects on course selection may be due to the fact that students were able to have multiple chances to practice, as the theme of selecting courses was brought up on many occasions during the counseling program.

Second, it was found that in the treatment group there was some effect (although

statistically insignificant) on student's career aspirations. Responses to various careers changed from the pretest to the posttest where a shift occurred in regards to students aspiring to "becoming famous," whereas, after the counseling program, less students aspired to "becoming famous" and responses to "don't know" increased.

The third finding was that, from the researcher's point of view, the majority of students showed interest and curiosity about college and their future. Some participants made an effort to visit their counselor's office to follow up on themes that were introduced during the program. It was obvious college was a concept that was important to them and that if the college-related topics were discussed more frequently, students would become more involved and begin exploring the many options that are potentially available to them in the future.

Furthermore, the data indicated that first-generation students do respond positively to additional guidance curriculum in expanding their knowledge of the college application process. If the participants were able to show such increases in their knowledge of the application process in one month, one can imagine the effects of such treatment to be done over a span of a year or more. In addition, to their increase in college knowledge, students may start to take on the responsibility of shaping their own education and future careers because they understand more clearly what is required and have tools to assist them to make better decisions.

Limitations

There were three limitations to this study. First, convenience sampling was utilized and not random sampling in selecting the participants for the study. Because the researcher had several scheduling constraints that included placing students in the middle term of the

school year and placing them in the first and second period, it was impossible to allow all students from that population to have an equal chance of being placed in the study. Therefore, convenience sampling was utilized in place of random sampling where students whose schedule allowed them to be apart of the research study time fame were placed accordingly. As a result, this limited the completeness of the representation of the sample.

Second, the sample size was comprised of 41 participants in the counseling program and 47 participants in the comparison group making it fairly small. Perhaps, a larger sample size comprised of a few hundred participants or even an entire class would have provided more statistically significant effects.

Third, the length of the counseling program was 12 hours over a period of 4 weeks. As a result, the counseling program did not allow for a more indepth curriculum but rather took on an introduction theme. Because of the lack of college information students had, the researcher made it a point to present and offer an introduction to the many facets that are involved in the college process.

Discussion

This study examined the effects of a counseling program on first-generation students in the ninth grade within an elective freshman class. Given that practically no studies have been done at the high-school level and that the majority of studies have been focused on minority, low-income students at the community-college level, this study is unique in nature.

The results of this study showed few statistically significant effects of the counseling program. Three effects that were observed were on career aspirations, course selection, and anecdotal evidence of students visiting their counselor more often. These are important

findings, and I will discuss these three findings a little later in the discussion. But first I want to discuss possible reasons why the study did not show more effects. There are at least four reasons.

First, it is certainly possible that studies like this need to take a longer-range perspective on learning outcomes. It may be too much to expect that students would change enough in a month to find major changes in self-efficacy, the barriers they see preventing them from longer-term college planning, and so on. Such skills and sentiments develop slowly over time, and certainly implies that research like that reported in this study will need to take their expected learning outcomes more into account.

From the literature review, it has been affirmed that non-first-generation students are familiarized with college-related topics at home, with peers, and in their community from the moment they are born. The counseling program designed for this study could not reach the first-generation students in the treatment at a level that could be deemed effective; therefore, a more realistic approach would be to design a program that stems over years that is embedded in the curriculum and does not stand alone as a separate entity, where college topics could be implemented into the day-to-day discussions in any classroom.

Second, it is also certain that a longer program than just 12 hours is needed to have an effect on high-school students. In fact, it may be necessary to increase the length of such a program to a semester or longer and to perhaps have specific times during the four years where students are reminded of key events including Scholastic Aptitude Tests (SAT), college application deadlines and college visits.

Furthermore, because of the limited length of the program, it was not comprehensive in the sense that parents were not communicated with regarding the curriculum. The notion

that parents could be brought into the discussion would allow for the potential for discussions to take place at home and also serve as a reinforcement to the student. In addition, the implementation of study support services could have potentially had an effect, if students were monitored on an individual basis, had their homework assignments checked, and had been offered additional tutoring, test preparation, and so on.

Third, it may be necessary to move the college focus to the middle school and perhaps even the elementary school. Indeed, many middle and elementary schools are implementing "career days," "college days," and so on.

Fourth, implementing the counseling program to ninth graders may have been too late in their lives. By the time students enter high school, many have set their paths and have decided whether they will pursue higher education or take a different path. In order to service first-generation students, it would be beneficial to begin in the sixth grade while students are still developing their identities.

All four reasons suggest the need for a general, longer-term perspective when conducting this type of research on self-efficacy and perceived barriers.

Having said this, it may be surprising that there were any findings at all from this study. The results of the data analysis showed few statistically significant effects between the treatment and comparison group. Three effects were (a) on career aspirations, (b) course selection, and (c) anecdotal evidence that students were independently seeking additional information by making more visits to their counselor. Further, the results showed minimal change on all the other variables between the pretest and posttest, when the treatment and comparison group were compared.

It was found that in the treatment group there was statistically insignificant effects

on student's ability to create a plan of study for the 10th grade. These findings may be due to the fact that students were able to have multiple chances to practice, as the theme of course selection was brought up on many occasions during the counseling program.

Unverferth, Talbert-Johnson, and Bogard (2012) argued that first-generation students are put into a position to navigate the college-admissions process without any support from family or school staff, and as a result, face many barriers that impede their progress. The results of the study provide evidence that a few hours of instruction can show statistically significant effects.

Furthermore, the findings on career aspirations had some effects that are similar to a study by Burns (2014) where a survey was administered to middle-and high-school students to examine their career and educational aspirations. The findings of the study indicated that a large portion of the participants also aspired to becoming a professional athlete. Perhaps, because first-generation students are often also of low SES background, the need for a high-paying career such as a professional athlete may be more intriguing, as opposed to earning a college degree, where they may not be familiar with the connection between higher education and higher paying jobs. The results of the present study provided evidence that the counseling program affected career aspirations as there was a decrease in the number of participants who selected "professional athlete" on the posttest. Further, more students selected "don't know," which in turn may allow them to potentially explore alternative career choices that may also include high-paying salaries.

The third finding was that, from the researcher's point of view, the majority of students showed interest and curiosity about college and their future. It was obvious that college was a concept that was important to them and that if the college-related topics were

discussed more frequently, students would become more involved and begin exploring the many options that are available to them in the future. Further, it was noted by the researcher that students were beginning to trickle in to the counseling office seeking follow-up questions regarding topics covered in the counseling program.

Furthermore, the data indicated that first-generation students do respond positively to additional guidance curriculum in expanding their knowledge on the college-application process. If the participants were able to show such increases in their knowledge of the application process in one month, one can imagine the effects of such treatment to be done over a span of a year or more. In addition to their increase in college knowledge, students may start to take on the responsibility of shaping their own education and future careers, because they understand more clearly what is required and have tools to assist them to make better decisions.

Despite these findings, the other variables did not change. Perhaps the study did not account for a longer-range perspective on outcomes. Schools are beginning to understand the importance of teaching college-related topics over the long term. For example, elementary schools are beginning to incorporate “annual career day” where professionals from different fields present on their careers, the education requirements, and other responsibilities associated with their careers. At the middle-school level, a major emphasis is being placed on teachers to incorporate their personal experiences of college and post-college-related material in their classrooms, allowing students to begin thinking about and exploring the many educational options available to them in the future.

Furthermore, variables such as aspirations, self-efficacy, and perceived barriers are effected in the long-term, not within weeks of instruction. Therefore, having administered

the questionnaire months later may have yielded more effective results. Second, perhaps, the program needed to be extended in length over months or an entire year so that the students could better understand the importance of the topics that were presented. Third, perhaps, presenting the topics at a later time in high school, thus allowing student to have experienced some degree of high school would have engaged students more, as they would have been more familiar with what is expected of them and the importance of college.

Below, I discuss each of the dependent variables and relate the limited findings to the literature.

Aspirations

The literature presented has multifaceted issues that surround first-generation students. Specifically, Perna and Titus (2005) showed that parental involvement in school contributes to increased college aspirations. Additionally, Terenzini, Springer, Yaeger, Pascarella, & Nora (1996) argued that family and friends of first-generation students generally have no experience of college and may be unsupportive, making guidance from other school staff that much more important. Warburton et al. (2001) concluded that first-generation students achieved less academically than non-first-generation students and enter college with less institutional knowledge and family support and, therefore, are put into a position to navigate the first year on campus without the benefit of those important factors.

Furthermore, it is clear from the literature that schools need to do a better job serving first-generation students. Engle and Tinto (2008) found no evidence that high schools and colleges officially worked together in assisting students with the transition.

More recently, a countering perspective to the literature's argument was coined the deficit perspective (Nieto, 2000) that assumes that cultural background of the student and

poverty are the root causes of underachievement. The need to reframe or challenge the status-quo with nonstigmatizing reference is essential, as Nieto (2000) argued that such demoralizing references allow for teachers, administrators and staff members to underscore the possibility that schools can be held accountable and that the student's academics are predetermined.

Stanton-Salazar and Dornbusch (1995) focused on the role of the school counselor as an important support for first-generation students in aspiring them toward higher-education goals. In looking at a means of better supporting first-generation students from the school's standpoint, a 4-week counseling program was created where students spent 12 hours learning about the many facets of college and were involved in discussions with peers and the researcher regarding college. The counseling program addressed the needs of first-generation students specifically by emphasizing that the attainable criteria were within reach for all students and that they all had the potential to be college ready.

Section one included five items measuring aspirations. Participants indicated various levels of aspirations. When asked about future aspirations regarding attending a 4-year university, responses did not change as a result of the treatment. Furthermore, when asked about specific career areas in the initial questionnaire, the largest responses at 26.8% were to become famous either as a movie star or a professional athlete. Various other responses were indicated including engineering, clerical, social service, public service, military, and so on.

Several implications could be made by these data. First, as students were more engaged in college discussion, they were able to open their perspectives and look at the various opportunities and the practicality that college may have to offer them. Perhaps, such

discussions were not held prior to the counseling program, and as a result, students were better informed to make better, more realistic decisions about their future careers. Perhaps, the discussion on college allowed them to look at high paying jobs as an alternative to becoming a famous star. Finally, the amount of students who indicated "do not know" showed the most difference. Perhaps, as a result of the counseling program, students had a higher level of uncertainty that is beneficial to this age group. Such uncertainty could allow them to continue exploring different options while in high school and understand that the need to research, explore, and understand themselves better will only benefit them in the future. Further, high schools offer many opportunities to explore different career paths through their Career and Technology department, where an introduction to cooking, hospitality, teaching, computers, business, and so on are provided. High schools also offer a Visual and Performing Arts department that offer courses in arts, video production, photography, theater, and so on. Finally, the Regional Occupational Program (ROP) offers many course that allow students to acquire the necessary skills to land an entry-level job in areas such as cosmetology, auto specialization, computer programming, medical occupations, nursing, and so on.

Consequently, the findings of this study found that encouraging students to attend college, providing college-related curriculum, and discussing the many benefits that a college education may offer does not show much effect on student's aspirations to set higher education goals for themselves. Although the literature referred to student aspirations as a major variable that needed to be addressed, the findings of this study found some effects on career aspirations; however, no statistically significant differences between the treatment and comparison group.

Self-Efficacy

There is a plethora of research regarding the need for first-generation students to believe in themselves, to believe in their ability to aspire to attend 4-year universities, and to increase their level of self-efficacy. According to Gibbons (2014), first-generation students generally come from a low-SES environment, low-achieving schools, families who may be unfamiliar with the education system or have not been successful in schooling, and limited positive role models. Furthermore, Hughes et al. (2007) argued that attending a low-achieving school typically equates to less rigorous work, poor peer interactions including increased violence, truancy, violence, low academic expectations, and high dropout rates. The school where the present study was conducted, was not low achieving and did not reflect the characteristics of schools described by Gibbons (2014).

Most research pointed to schools to take on a lead role in pushing students to be more motivated and giving them a "can-do" attitude. To counteract this problem, Bemak and Chung (2005) explored the evolving role of the school counselor as being an advocate for equity and for addressing the achievement gap. Because inequities continue to grow, school counselors are in a strategic role to advocate for students.

Section two, which measured self-efficacy was associated with item 6, which had 9 subitems. Unfortunately, the results of the study found no statistically significant differences as a result of the counseling program. There are many plausible reasons for why this result occurred. First, self-efficacy is a psychological state that is very difficult to effect in such a short period of time. Students who may have had their entire lives with a message that college is not in their grasp may have had some serious doubts about the idea and perhaps

did not even bother reflecting on it. Furthermore, the fact that participants in this study were at an age level that generally is not able to project future career and education outcomes, have affected the findings.

Perceived Barriers

Student's perceived barriers were another variable that was discussed in many past research studies. The main concern from the literature was that first-generation students had misinformation about college. Specifically, first-generation students perceived themselves as unfit academically, financially, and socially; perceived college as too expensive; and were not informed of support services such as financial aid. Further, first-generation students expressed that they were misinformed about the admission requirements and were not encouraged enough by school staff to apply. In a study by McWhirter (1997), it was found that Hispanic-Americans expressed family issues, lower intelligence level, and not fitting-in to the college culture as perceived barriers.

In another study, even though SES appears to have had a negative effect on applying to college, the results support research that suggests that school counselors may be a major source of information and motivational support in the college-going process for first-generation students (Cabrera & La Nasa, 2001; Stanton-Salazar, 2001).

Lent et al. (2000) posed that perceived barriers can influence career paths, as well as postsecondary options, whereas social supports can help strengthen self-efficacy and deter perceived barriers; therefore, it was argued that the more positive the perception of a person's ability to face perceived barriers, then the less those barriers will be influential. Therefore, Lent et al. (2000) argued the school counselor should take on a leadership to dispel the negative barriers by students and school staff as well.

Section three measured perceived barriers and was associated with item 7, which had 12 subitems. Unfortunately, the results of the study also found no statistically significant differences as a result of the counseling program.

Knowledge of the College-Application Process

The fourth variable measured knowledge of the college-application process. This variable was multifaceted in that it not only covered the actual application process but also the knowledge of seeking assistance with the appropriate staff both in high school and in college. The literature confirmed that non-first-generation students were privy to "privileged information" that included affluent communities where access to other college graduates was prevalent and so they were able to make connections with those individuals who could guide them. In contrast, first-generation students also were less likely to seek the appropriate school officials in order to make better and more well-informed decisions.

Additionally, Conley (2012) argued that in order to transition into a university as an first-generation students, there is the need for "privileged information" essential to be successful in college. Such information included an understanding of the culture, the social skills required to interact with peers and professors, and the ability to face their academic challenges and seek help when needed.

Therefore, an emphasis was placed on teaching the participants to counter these issues and as a result of the counseling treatment, differences in frequencies were found on pre-and postquestionnaires between the treatment and comparison group. There are many reasons to account for the increase in student' college knowledge as indicated by the findings. First, most of the material covered in the counseling program required memorization of straight and simple facts, where the lessons included many handouts and

various practice activities. Therefore, students were able to retain the knowledge long enough to respond correctly to the items pertaining to college knowledge. Additionally, the comparison group received a one-hour lesson on college knowledge but showed less change than the comparison group.

Section four measured knowledge of the college-application process and was associated with items 8 to 12. Although some differences were observed, the results of the study found no statistically significant differences as a result of the counseling program.

Course Selection

Additionally, item 13, the 10th-grade course-selection form was to be completed by the participants to measure how well they could create a course program for the following year based on the knowledge they had gained from the counseling program. The initial data collected prior to the counseling program found that 16 participants could create a program of student for the 10th grade that would satisfy the course requirements to be admitted to a 4-year university. After the counseling program was completed, the data found that 27 students could plan a course of study to make them eligible for admission to a 4-year university. As a result, a chi-square test was conducted indicating statistical significance at the .005 level of significance as a result of the counseling program.

One reason that the counseling program had an effect on course selection was because multiple lessons were focused on the topic as it was interrelated with other topics such as the 4-year plan, A-G course requirements, and so on. Therefore, through various experiences, discussions, and lessons, students were able to better comprehend the topic.

Understanding the topic of course selection is highly beneficial in many ways. It allows students to independently begin to take on an active role in planning their own

program of study, which leads them to make decisions that are based on their own interest and future aspirations. Second, understanding the A-G course requirements for college admissions allows the student to explore the college-preparatory options that are available to them, leading them to challenge themselves and thus become better prepared for the rigors of college.

Implications For Research

There are three potential implications for future research to address the limitations of this study. First, the time frame for the counseling program should be extended over a longer period of time. One suggestion would be to start one year earlier during the eighth-grade year and extend it throughout the ninth grade to span over a 2-year period and by also incorporating a middle-to high-school transitional theme that is similar to what the literature presented on several transitional programs that began after high school graduation at both the community college and university level. These programs supported and assisted students in transitioning in to college with the objective to make it smooth and advantageous for the student both academically and socially. Additionally, a longer period of time could make a greater effect on self-efficacy and perceived barriers, as this studied indicated that no statistically significant findings were found. An alternative time-period would be to include the counseling program over an entire term, so that it would allow for students time to reflect and think about the information presented to them.

Second, a expanding a counseling program that was school-wide to reach more students would be a potential study. Such a study would allow for all peers to enter the discussion on college and make it a school-wide theme that would mean that most school staff would need to contribute in some way or another. For example, academic classes could

use college-scenarios when teaching literature, mathematics, and so on. This would allow for more on-going discussion, rather that what was implemented in this study, which was a short treatment in a very controlled manner. Further, creating bridge programs that focus on all first-generation students, as an alternative to the many programs that already exist that are exclusive to minorities would be beneficial.

Third, if the first implications were implemented, then naturally, the treatment could be done in a more indepth manner that would mean that students would participate in much more meaningful discussions, look at more options available to them, and, as a result, be more prepared, which would gradually affect their aspirations, self-efficacy, perceived barriers, knowledge of the college-application process, and course selection.

Implications for Practice

The implications of this study lead to the conclusion that that much can be done to support and assist first-generation students toward successfully applying to and gaining admission to 4-year universities. First, an emphasis needs to be placed on supporting first-generation students at an early age far before entering high school and be part of an on-going discussion by staff on ways to meet their needs. As the literature has discussed, many barriers exist that include aspirations, self-efficacy, perceived barriers, knowledge of the college-admissions process, and course selection.

For example, in a study by Owens (2010), the researcher identified the following strategies to assist first-generation students with their future college experiences: (a) support students in facing potential barriers that they may experience, (b) encouraging first-generation students to enroll in advanced placement courses early on in order to be more prepared for the rigors of college, (c) promote advocacy for students and families with those

parents have the least knowledge about college, (d) include mentors who have attended college to assist students, and (e) increase the level of expectations for students while supporting them throughout their journey.

Ndiaye and Rebecca E. Wolfe (2016) posed the question: What is an early college design? The authors responded by discussing the fact that a partnership must be made between high schools and colleges to provide a rigorous, yet supportive environment that focuses on acceleration for mediation and to increase college enrollment and the aspirations of first-generation students toward successful college and career goals. Providing an environment that is college going raises the level of all students to aspire to higher academic goals. Partnerships between postsecondary institutions and high schools allow for an early-college introduction to complete immersion into the college environment.

Second, counselors should take on a leadership role in disseminating information to administrators, staff, and the community about first-generation students and how to better support them. Counselors have the necessary tools to seek out first-generation students, meet with families, to influence administrators to place a focus on this population, and to review data regarding trends on their effectiveness in assisting first-generation students.

Finally, because the topics of a counseling program require a certain level of expertise, it is imperative that a counselor conduct the program and not a teacher. Counselors have the expertise to answer specific questions regarding the intricacies that come along with college and school-wide rules and regulations. In addition, the presence of a counselor offers a unique opportunity for stronger relationships to occur between student and counselor, allowing students an additional entity to refer to in the future for inquiries that may have to do with topics outside of the classroom.

Therefore, creating a specialized counseling program to an audience of ninth-grade first-generation students was undertaken without having past research to refer to. As a school counselor, little is done to address the needs of first-generation students for two reasons. First, the expectations placed on first-generation students are set low, where earning a diploma is all that is expected, which is due to the fact that some view a high-school diploma as an accomplishment and a natural outcome for those who are first-generation students.

On the contrary, high-achieving students, who generally are made of a more affluent population, are at the forefront of focus because they demand more services and voice their issues regularly via their parents, who are well-informed in school policy and how to challenge it, when certain policies undermine their children's education. In addition, non-first-generation student families seek support from administration and also are willing to involve the school board when necessary. Therefore, more emphasis is placed on meeting the needs of non-first-generation students by expanding the Advanced Placement (AP) program, as well as offering more variety of course selections and so on. Unfortunately, because of this phenomenon, first-generation students are left to fend for themselves that typically lead; to minimal achievement as a result.

In a search for common ground in the literature, it is apparent that first-generation students need for external and internal support is needed at a higher level. As mentioned earlier, many researchers looked at factors including aspirations, self-efficacy, perceived barriers, knowledge of the college-application process, and course selection. Interventions that focused on these internal factors have shown various levels of gains and have shown

some promise. Because these interventions are progressing so slowly, continued attempts and research need to focus on improving interventions.

Furthermore, researchers from all fields need to collaborate and discontinue the "blame" game which is unproductive and offers no solutions to this very important issue. Therefore, further collaborative research needs to be conducted so that there is a more holistic view on how to better support first-generation student.

Summary

First-generation students are less likely to earn a bachelor's degree in comparison with non-first-generation students (Tinto, 2006). Furthermore, first-generation students have a high rate of failure at the community college, making it even more difficult to ever earn a college degree. As such, in order to combat the lack of success first-generations students are experiencing in successfully gaining admission to and completing a college degree, it is important that schools add specialized programs to be implemented early on in a student's schooling.

The literature has shown that although small yet important effects have been found when additional support services have been implemented to address the needs of first-generation students, specifically, when focusing on first-generation student' aspirations, self-efficacy, perceived barriers, knowledge of the college-application process, and course selection. Therefore, this study compared the effectiveness of a counseling program between treatment and comparison for ninth-grade high-school students. The findings indicated that aspirations and knowledge of the college application showed positive differences as a result of the counseling program. No differences, however, were found on self-efficacy and perceived barriers.

The limitations of this study potentially effected the outcome of the study in that ample time was not allotted to conduct a longer study. Second, perhaps a more school-wide approach to a college-going culture would be beneficial in comparison with a controlled group of students. As a result, further research is need to better understand the effectiveness of counseling programs on first-generation students and how to better create and implement them.

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Appendix A

Student Questionnaire

Student Questionnaire

Section 1 – Aspirations

How far would you like to go in school?

(CIRCLE ONLY ONE)

Less than high-school graduation	1
High-school graduation only	2
Less than 2 years of college	3
Two or more years of college, including 2-year degree	4
Finish 4-year college	5
Master's degree	6
Doctorate or other professional degree past Master's	7

How far do you THINK you will get in school?

(CIRCLE ONLY ONE)

Less than high-school graduation	1
High-school graduation only	2
Less than 2 years of college	3
Two or more years of college, including 2-year degree	4
Finish 4-year college	5
Master's Degree	6
Doctorate or other professional degree past Master's	7

What kind of work or occupation would you like to do when you finish school?

_____

_____

How strongly do you want to go to a 4-year college after high-school? (Check one)

_____ I don't want to go to a 4-year college
_____ I am not sure if I want to go to a 4-year college
_____ I think I would like to go to a 4-year college
_____ I very strongly want to go to a 4-year college

5. If you want to go to college, please rate the extent to which the following has been supportive of you attending college?

	Not supportive				very supportive
Parent/Guardian	1	2	3	4	5
Siblings	1	2	3	4	5
Other relatives	1	2	3	4	5
High-school teacher/counselor	1	2	3	4	5
Friends	1	2	3	4	5

Section 2: Self-Efficacy

Directions: Please indicate how much you agree or disagree with each statement by circling the number that applies

Statement	Strongly Disagree (1)	Moderately Disagree (2)	Mildly Disagree (3)	Mildly Agree (4)	Moderately Agree (5)	Strongly Agree (6)
I can make an educational plan to prepare me for college	1	2	3	4	5	6
I can get good grades in my school courses	1	2	3	4	5	6
I can get accepted into a 4-year college	1	2	3	4	5	6
I can find a way to pay for college	1	2	3	4	5	6
I could fit in at college	1	2	3	4	5	6
I could get good grades in college	1	2	3	4	5	6
I could finish college and earn a college degree	1	2	3	4	5	6
I can apply to a college	1	2	3	4	5	6
I can graduate from high-school	1	2	3	4	5	6

Section 3: Perceived Barriers

Directions: Please indicate how much you agree or disagree with the following barriers as interfering with you applying, entering and completing a college degree:

Barrier for you to get to college:	Strongly Disagree (1)	Moderately Disagree (2)	Mildly Disagree (3)	Mildly Agree (4)	Moderately Agree (5)	Strongly Agree (6)
Not smart enough	1	2	3	4	5	6
Not confident enough	1	2	3	4	5	6
Not sure I belong in college	1	2	3	4	5	6
Parents don't support my plans	1	2	3	4	5	6
Not interested in classes	1	2	3	4	5	6
No one to help me plan for college	1	2	3	4	5	6
Lack of motivation	1	2	3	4	5	6
Lack of study skills	1	2	3	4	5	6
None of my friends plan on going to college	1	2	3	4	5	6
School is too stressful	1	2	3	4	5	6
College is too expensive	1	2	3	4	5	6
I need a job to earn money	1	2	3	4	5	6

Section 4 – Knowledge of College Admissions

Indicate how many years of each of the following subjects in high-school is required for admission to a university:

____ years of English
____ years of Mathematics
____ years of History
____ years of Laboratory Science
____ years of Foreign Language

Have you been to a college campus?

____ Yes
____ No

Do you plan on taking any of the tests below: (Circle all that apply)

____PSAT
____SAT I
____SAT II (any subject)
____AP (Advanced Placement)
____ACT

How many College Advanced Placement (AP) courses do you expect to take by the end of high-school? (Circle one)

0 courses 1 course 2 courses 3 courses 4 or more courses

Indicate your best guess of the cost of tuition for one year at each of the following colleges.

Community College: $_____/year
Cal State University: $_____/year
University Of California: $_____/year
Private College or University: $_____/year

10th-Grade Course Registration

Directions: Please circle the courses you plan to take in the tenth grade.
if applicable, write in courses.

Subject	**Select Level** (Circle one)
Language Arts	English or Honors English
Social Science	World History or AP W.H.
Mathematics	*Algebra 1* *Pre Calculus* *Geometry* *Calculus* *Algebra 2* *Statistics*
Science	*Biology or Chemistry or Other (write in):*
World Language or **Elective**	*Spanish 1 or 2* *Other:* *French 1 or 2* *German 1 or 2* *Latin 1 or 2*
Physical Education	PE 2
Visual/Performing Arts *or* **Elective**	(Write in the course(s))

Appendix B

Counseling Program Lesson Activities

Exploring Careers and Majors

Name _____

Using the following websites, explore possible careers and majors.

1. Bigfuture.collegeboard.org
   -Getting Started -> Know Yourself -> Answer 10 questions and discover your future -> 5 ways to find career ideas -> Career and Major Search

2. CaliforniaColleges.Edu
   - Career Planning -> Learn about yourself -> Interest Profiler -> Matching Careers -> Click on careers listed.

List top 3 careers (including related major and school)

1.

2.

3.

Exploring Careers and Majors

Name _____

Using the following websites, explore possible careers and majors.

1. Bigfuture.collegeboard.org
   -Getting Started -> Know Yourself -> Answer 10 questions and discover your future -> 5 ways to find career ideas -> Career and Major Search

2. CaliforniaColleges.Edu
   - Career Planning -> Learn about yourself -> Interest Profiler -> Matching Careers -> Click on careers listed.

List top 3 careers (including related major and school)

1.

2.

3.

CSU vs. UC

Name _____

1. CSUmentor.edu
   Explore campuses -> Enter info. -> Click view matching campuses -> Explore Campuses
2. UniversityOfCalifornia.edu
   Select a Campus -> Academics -> Schools and Colleges
   Campus Life -> Explore Campus

List 5 new facts that you learned
1.
2.
3.
4.
5.

Which campuses could you see yourself attending after high school?
UC _____
CSU_____

CSU vs. UC

Name _____

1. CSUmentor.edu
   Explore campuses -> Enter info. -> Click view matching campuses -> Explore Campuses
2. UniversityOfCalifornia.edu
   Select a Campus -> Academics -> Schools and Colleges
   Campus Life -> Explore Campus

List 5 new facts that you learned
1.
2.
3.
4.
5.

Which campuses could you see yourself attending after high school?
UC _____
CSU_____

NAME _____ **DATE** _____ **Grade** _____

Post High School Plans (circle): UC/CSU/Private, Community College, Military, Career or Other.

High School *4-Year Plan*

*VAPA/CTE/WL (30 Credits total, 20 Credits in one area) *Parenthesis indicate requirement for college admissions

Subjects	College	9th	10th	11th	12th
a. History	2 yrs.	Social S. or Honors	World H. or AP	U.S. History or AP	Civics or AP Gov. Econ. or AP Econ.
b. English	4 yrs.	Eng. 9 or Honors	Eng. 10 or Honors	Eng. 11 or AP Lang./Comp.	Exp. Read/Write or Comp. AP Lit./Comp.
c. Mathematics	3 yrs. (ALG 2 Min)	ALG/GEOM/ALG 2	ALG/GEOM/ALG 2	(Math)	Recommended
d. Lab. Science	2 yrs.	Physical/Life	Physical/Life	(Physical/Life)	Recommended
e. W. Language	2 yrs. (same)	(Year 1)	(Year 2)	Recommended	Recommended
f. V.P. Arts	1 yr.	(V.P. Arts)			
g. Elective	1 yr.	(College Prep. Elective)			
CTE	None	Recommended			
FIT/Health	None	FIT/Health			
Physical Education	None	PE 1	PE 2		
CREDITS	NA	65	125	185	240
Exams			PSAT and CAHSEE	PSAT/SAT or ACT	SAT or ACT

Required Area Graduation		**College Admissions**
1. Coursework	240 Credits	Minimum of **15** College Prep. courses
2. Min. Grade	"D-" or higher	"C " or higher
3. GPA	N/A	UC 3.0 minimum, CSU 2.0 minimum
4. CAHSEE	MATH and ELA (350)	N/A
5. College Entrance Exams	N/A	PSAT in Oct of 10th and 11th grade SAT or ACT during Junior year (Some UC majors may require SAT 2 Subject Tests)

CA Colleges: www.californiacolleges.edu
UC: www.universityofcalifornia.edu
CSU: www.csumentor.edu
SAT: www.collegeboard.org
Private: www.aiccu.org
ACT: www.actstudent.org
NCAA: www.ncaa.org
Community Colleges: www.ccco.edu

FAILED/MISSING Courses (MUST BE REPEATED) _____ _____ _____

*Updated 1/2015

College Prep Courses (UC/CSU a-g Courses)

a - Social Science - 2 years (20 Credits) Page 43

	Course	✓
•	Social Science	
«	(H) Social Science 9	
«	World History 10 A/B	
«	AP World Hist 10 A/B	
«	US Hist 11 A/B	
«	AP US Hist 11 A/B	
•	Civics 12 A	
«	AP US Gov & Politics	
•	Women In American History	

e -World Languages - 2 years (3 years recommended) (20 Credits) Page 53

«	Spanish Span Spkrs 1	
«	French 1 A/B	
«	French 2 A/B	
«	French 3 A/B	
«	AP French 4 A/B	
«	AP French 5 A/B	
«	German 1 A/B	
«	German 2 A/B	
«	German 3 A/B	
«	Spanish 1 A/B	
«	Spanish 2 A/B	
«	Spanish 3 A/B	
«	AP Spanish 4 A/B	
«	AP Spanish 5 A/B	

b - English - 4 years (40 Credits) Page 26

	Course	✓
«	English 9 A/B	
«	(H) English 9 A/B	
«	English 10 A/B	
«	(H) English 10 A/B	
«	English 11 A/B	
«	(H) English 11 A/B	
«	Expository 12 A/B	
«	AP Lang & Comp A/B	
«	Comp A/B	
«	AP Lit & Comp 12 A/B	
•	Fantasy & Sci Fiction	
•	(Truly)Cont Literature	

f - Visual &Performing Arts-1 year (10 Credits) Page 47

⊖	Art 1 and 2	
•R	Art 3	
«	3D Art 1 - 2	
⊖	Ceramics 1 and 2	
•R	Ceramics 3	
⊖	Photo 1 and 2	
•R	Adv Photo 3 -8	
⊖	Digital Photo 1 and 2	
⊖	Video Prod 1 and 2	
3**	ROP Visual Comm 1	
«	Animation/Clay 1 -2	
«	AP Studio Art A.B	
«	Stagecraft 1 - 2	
«	Stagecraft 3 - 8	
«	Drama 1 - 2	
«	Drama 3 - 8	
•	Adv Theatre Wksp 1 -2	
•	Adv Theatre Wksp 3 -8	

c - Math - 3 years (4 years recommended) (30 credits) Page 33

	Course	✓
«	Algebra 1 A/B	
«	Algebra B1/B2	
«	Geometry A/B	
«	(H) Geometry A/B	
«	Algebra II A/B	
«	(H) Algebra II A/B	
«	Advanced Alg A/B	
«	Statistics 1 -2	
«	AP Statistics A/B	
«	Pre-Calculus A/B	
•	AP Calc AB	
•	AP Calc BC	

«	Concert Choir A/B	
«	Treble Choir A/B	
«	Chamber Chorale A/B	
«	Show Choir A/B	
«	Music Comp A/B	
3	Symphonic Band A/B/C	
3	Orchestra A/B/C	
«R	Jazz Ensemble A/B	
«	Hist Art & Floral Design	
	AP Music Theory	
«	Digit. & Trad Art Found	

g - College Prep Electives - 1 year (10 Credits)

«	Ag Science A/B	
«	An Anat & Phys A/B	
«	Ag Business Econ A/B	
•	Intro Comp Program	
«	Exp Comp Science A/B	
3*	ROP Comp Int. Mfg.	
«	Intro Engineering A/B	
«	ROP Civil Eng & Arch	
«	Journalism 1 A/B	
3	Adv Journalism A/B/C	
«	ROP Econ of Bus Own	
«	ROP Sports Med	

d - Lab Science - 2 years (3 years recommended) (20 Credits) Page 39

(Courses must be in at least 2 or 3 science disciplines - Biology, Chemistry or Physics

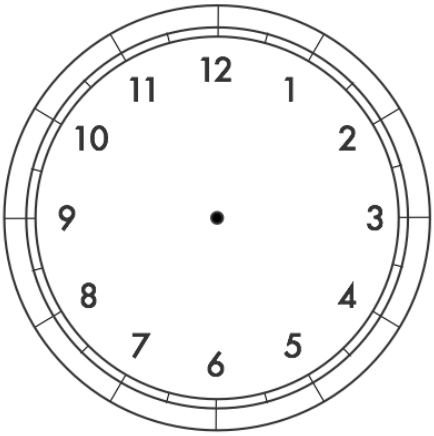
	Course	✓
	Life Science/Biology	
«	Biology A/B	
«	Advanced Biology A/B	
«	AP Biology A/B	
«	Field Bio A/B	
«	Ag. Biology A/B	
«	Physiology A/B	
	ROP Principles of Biomedical Sciences A/B/C	
	Physical Science/Chemistry/Physics	
«	Ag Chemistry A/B	
«	Con Physics A/B	
«	Chemistry A/B	
«	AP Chemistry A/B	
«	(H) Physics A/B	
«	Eng Physics	
«	Intro Org Chem A/B	
	Eng Physics A/B	
	Interdisciplinary Science	
«	AP Enviro Science A/B	

•	Creative Writing	
•	Exploring Film	
«	Earth Science A/B	
•	Economics 12B	
«	Ornamental Horticult	
•	AP Microeconomics	
«	Psychlogy A/B	
3**	ROP Dev Psych Child	
«	AP Psychology A/B	
•	Digital Photo 3	
•R	Video Production 3	
«	The Write Team A/B	
•	Intro to Sociology	

Key

«	2 trimesters	10 credits	1 year
•	1 trimester	5 credits	1/2 year
3	3 trimesters	15 credits	1.5 year
3*	3 trimesters	10 credits	1 year
3**	3 trimesters	20 credits	1.5 year
◆	Pending approval		
R	Repeatable	5 credits	1.2 year
	2 courses	10 credits	1 year

DAY DATE



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How To Pay For College?

Name _____

Types of Aid
Grants, Loans, Work-Study

FAFSA.ed.gov
College Scoreboard -> Find School (enter data) -> Select a University ->
Types of Financial Aid -> Calculate your Aid

How To Pay For College?

Name _____

Types of Aid
Grants, Loans, Work-Study

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College Scoreboard -> Find School (enter data) -> Select a University ->
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