Examining the Self-Efficacy of High-Achieving First Generation College Students: A Case Study

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EXAMINING THE SELF-EFFICACY OF HIGH-ACHIEVING FIRST GENERATION COLLEGE STUDENTS: A CASE STUDY

By

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This dissertation is dedicated to everyone who said I could do it, and everyone who said I couldn’t. I love you all.

Out of the night that covers me,
Black as the pit from pole to pole,
I thank whatever gods may be
For my unconquerable soul.

In the fell clutch of circumstance
I have not winced nor cried aloud.
Under the bludgeonings of chance
My head is bloody, but unbowed.

Beyond this place of wrath and tears
Looms but the Horror of the shade,
And yet the menace of the years
Finds and shall find me unafraid.

It matters not how strait the gate,
How charged with punishments the scroll,
I am the master of my fate,
I am the captain of my soul.

*Invictus* by William Ernest Hemley
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ABSTRACT

Self-efficacy is defined as “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Mullen, 2012, p. 220), and has been shown to account for up to 25 percent of the variance in academic achievement (Multon et al., 1991; Schunk & Pajares, 2009). The development and influence of self-efficacy on the academic achievement of first-generation college students has received relatively little attention in the literature.

Implementing a case study approach, this study intended to understand how self-efficacy has developed and influenced the academic success of high-achieving first-generation college students. Data for this study came from two separate in-depth interviews with 16 high-achieving college seniors enrolled in the honors program at a four-year Hispanic Serving Institution (HSI).

Findings from the study were consistent with the core tenets of self-efficacy. In the study, participants’ self-efficacy development was largely driven by positive mastery/lived experiences before and during college. Vicarious/modeled experiences and social/verbal persuasion also played a role in forming participants’ sense of capability, albeit not as consistently as lived/mastery experiences. In terms of influence, the lived/mastery experiences participants identified were largely positive and more consistently influential than positive or negative vicarious/modeled experiences and/or social/verbal persuasion. Based on findings from the study, implications for practice and directions for future research are offered.
CHAPTER ONE
INTRODUCTION

As the demographic makeup of higher education has changed over the last 30 years, so has the empirical focus of higher education research as it relates to the student populations who have emerged during this time (Pascarella, Pierson, Wolniak & Terenzini, 2004). According to Pike and Kuh (2005), one such population that has received increasing attention in the literature has been first-generation college students (FGS), who are most commonly defined as any postsecondary student who comes from a family where neither parent or guardian has earned a bachelor’s degree (Choy, 2001). The increased focus on FGS has certainly been warranted, as most estimates of FGS total enrollment hover around 50 percent of the college student population in the United States (Choy, 2001; Mehta, Newbold & O’Rourke, 2011).

However, Gibbons and Borders (2010) have highlighted an important gap in the literature on FGS. That is, much of the research in this area is highly descriptive and quantitative in nature, focusing a considerable amount of attention on surface-level student characteristics or outcomes. Some researchers have similarly highlighted this notion of descriptive focus (Green, 2006; Richardson & Skinner, 1992), while others have pointed out the majority of FGS studies can be categorized into three primary areas of emphasis that generally align with the college-going timeline beginning prior to matriculation (college choice, academic preparation), continuing with the college transition (first-year achievement, involvement, support, persistence), and concluding with graduation (Pascarella et al., 2004; Terenzini, Springer, Yaeger, Pascarella & Nora, 1996). Pascarella et al. (2004) point out many of these studies have adopted an approach where FGS are compared with their continuing-generation peers with respect to a number of factors on this continuum.
For example, it has been found FGS have lower educational aspirations than continuing-generation students (Pike & Kuh, 2005), are less likely to be academically and/or socially prepared for college (Lindholm, 2006; Mehta et al., 2011), have more difficulty adjusting to college (Ramos-Sanchez & Nicols, 2007), and are less likely to persist and ultimately graduate (Terenzini et al., 1996). In a rather extensive report on FGS at four-year institutions, the Higher Education Research Institute (2007) highlights these students as disadvantaged in terms of social and cultural capital and more likely to come from low socioeconomic backgrounds.

Although we know more about FGS than we did 30 or even 10 years ago (Pascarella et al., 2004), the problem is not the breadth of what is known. Rather, the problem lies in both the depth of what is known as well as the influence this incomplete understanding has on practice. As briefly alluded to above, a considerable amount of the research on FGS has provided a grim portrayal of their prospects for success and achievement, particularly in comparison with their continuing-generation peers. As Richardson and Skinner (1992) point out, the result of this myopic focus has been that “many of the prescriptions for improving minority achievement are based on excessively simplistic perceptions of who minority students are” (p. 29). Rendon (1992) suggested these measures serve only to “humiliate” and “inflict pain” on FGS and other underrepresented groups who need to be guided toward reconciling their historically devalued backgrounds with the cultures of their respective institutions in a manner that honors their capacity for success. Green (2006) provided perhaps the most direct criticism of this deficit orientation with respect to educating FGS:

“For many years the deficit model approach has compelled educators to focus on academic or cultural deficits that hinder underserved students’ adequate adaptation to the
college environment. In turn, policies, programs, and educational services have been created to cure these so-called ills” (p. 25).

Fortunately a number of researchers have begun to highlight the importance of looking beyond well-intentioned yet limited descriptive statistics and, instead, focusing more attention on the development and experiences of FGS in order to more effectively engage this student population (Green, 2006; Pascarella et al., 2004; Rendon, 1994; Tinto, 1999; Wang, 2012). Still, insight into practices, orientations and approaches promoting success remains relatively thin, particularly from an empirical standpoint.

Self-efficacy, originally introduced as part of Bandura’s (1977) social cognitive theory, provided an intriguing theoretical lens for this study, through which the admonitions of previous higher education researchers who have pushed for a more balanced empirical approach that attempts to understand and interpret the FGS experience on a deeper level were addressed (Green, 2006; Pascarella et al., 2004; Rendon, 1994; Richardson & Skinner, 1992). Widely described as a cognitive and psychosocial process (Bandura, 1977; Pajares, 1996; Schunk & Mullen, 2012; Schunk & Pajares, 2009), self-efficacy is generally defined as “one’s perceived capabilities for learning or performing actions at designated levels” (p. 220) (Schunk & Mullen, 2012). By exploring the FGS experience more deeply, this study shed light on some of the literature gaps in this area.

The remainder of this chapter will introduce the study, and will highlight gaps in the literature I intend to investigate. I will present research questions and design, and begin to draw some preliminary connections that will reinforce the feasibility of self-efficacy as a theoretical basis for the study.
Problem Statement

A number of studies have established an empirical connection between self-efficacy and retention-based outcomes such as academic achievement and college adjustment (Bong, 2001; Chemers, Hu & Garcia, 2001; Multon et al., 1991; Pajares, 1996; Vuong, Brown-Welty & Tracz (2010); Zajacova, Lynch & Espenshade, 2005; Zimmerman, 2000). However, important gaps in the literature remain. These include 1) a limited number of qualitative studies examining self-efficacy, 2) a limited number of studies examining the self-efficacy of first-generation college students, and 3) limited research specifically on high-achieving FGS.

First, a considerable number of previous studies in this area have been quantitative. As a result, any conclusions drawn from these studies with respect to the formation or influence of self-efficacy are largely speculative. Second, the vast majority of self-efficacy research has focused on the general college student population, which previous studies have established as being markedly different from FGS (Pascarella et al. 2004; Terenzini et al., 1996). Solberg et al. (1993) found the validity of their self-efficacy measure was not sensitive to gender, cultural or class differences. However, theirs and few other studies (Bong, 2001; Torres & Solberg, 2001) have attempted to examine the self-efficacy development of specific student subgroups, including first-generation college students. Some interesting works have highlighted opportunities for examining self-efficacy among FGS (Lindholm, 2006; Pajares, 1996; The College Board, 1996; Wang, 2012); however these connections were only indirectly proposed by the authors and, as a result, are ultimately limited in terms of utility. Schunk & Pajares (2009) have cautioned increasing student diversity in educational settings will likely introduce additional achievement-related factors that may not be fully addressed in the literature. Third,
little attention has been devoted to examining the experiences of high-achieving FGS, particularly in relation to self-efficacy.

Given that, there are important gaps in the literature in terms of understanding how the self-efficacy of first-generation college students relates to their academic achievement, all of which the study addressed. These gaps are most apparent in terms of depth of knowledge, and qualitative inquiry provided a logical pathway toward gleaning depth in what we know about the lived collegiate experiences of FGS, as well as a better understanding how self-efficacy influences the academic achievement of FGS who experience the most academic success.

**Purpose of the Study**

As mentioned previously, existing research on first-generation college students has been largely limited to descriptive findings (Gibbons & Borders, 2010; Green, 2006) that have highlighted an array of academic and social deficits within collegiate settings. As a result, retention approaches have largely focused on rehabilitating students rather than understanding and nurturing their capacity for success (Green, 2006; Rendon, 1994; Richardson & Skinner, 1992; The College Board, 1996). Tinto (1999) places the onus squarely on higher education institutions, suggesting they “have done little to change the essential character of college, little to alter the prevailing character of student educational experience, and therefore little to address the deep roots of student attrition” (p. 1). This study adopted self-efficacy (Bandura, 1977) as a theoretical guide for better understanding the “deep roots” of the FGS experience by examining the collegiate experiences of high-achieving first-generation students. Through this, the study intended to shed light on practical opportunities for promoting the success of FGS that extend beyond the adoption of educational triage.
An important goal of the study was to shed light on specific ways educational practice might be enhanced as it relates to the promotion of self-efficacy and, by extension, academic achievement among first-generation college students. This goal was addressed in two primary ways. First, the study qualitatively examined how the personal and collegiate experiences of high-achieving FGS have informed their self-efficacy development, and vice versa. Qualitative research in the area of self-efficacy is limited, especially as it relates to FGS generally and high-achieving FGS specifically. Far more attention has been devoted to understanding why first-generation college students fail as compared to why they succeed. Through its qualitative focus, the study investigated the relationship between self-efficacy and academic achievement among FGS from a unique vantage point that has not been extensively examined in previous studies. Although numerous quantitative studies have empirically established this relationship among K-12 and college students (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon, Brown & Lent, 1991; Pajares, 1996), few have focused specifically on FGS or similar populations. Studies that have considered this relationship have yielded somewhat contradictory findings (Ramos-Sanchez & Nichols, 2007; Solberg, O’Brien, Villareal, Kennel & Davis, 1993; Torres & Solberg, 2001). Speaking on the potential value of qualitative inquiry in studying self-beliefs, Pajares (2001) explained that despite the robust literature base on self-efficacy as a motivation construct, qualitative research is needed to gain “additional insights” (p. 34) into the process of achievement outcomes among various student populations.

**Research Questions**

The following are primary research questions for the proposed study, including sub-questions:
1. How has self-efficacy been developed among high-achieving first-generation college students?
   a. What mastery/lived experiences have influenced the self-efficacy development of FGS?
   b. What vicarious/modeled experiences have influenced the self-efficacy development of FGS?
   c. What forms of social/verbal persuasion have influenced the self-efficacy development of FGS?

2. How has the self-efficacy of high-achieving first-generation college students influenced their academic achievement?

**Research Design**

This qualitative study adopted a multiple case study design. Griffin’s (2006) study examining the motivation of high-achieving Black college students served as somewhat of a model for the study. As in her investigation I adopted a multiple case study design where structured interviews were conducted. However, instead of exclusively focusing on Black students as she did, I considered high-achieving FGS enrolled in an honors program at a four-year institution irrespective of race and/or ethnicity. The purpose of this approach was to identify notable themes among the responses of participants in the study, and connect these themes to self-efficacy theory. Yin (2014) refers to this analytical approach as “pattern matching,” where the case study researcher uses theory as a starting point that can then be adopted as a framework for interpreting findings. The theory-to-practice orientation of such an approach was desirable given the overarching goals of this study.
Qualitative research focusing on self-efficacy and first-generation college students is limited, particularly in relation to one another (Lindholm, 2006; London, 1989; Wang, 2012). A qualitative approach affords the opportunity to begin considering how self-efficacy impacts FGS in practice. As Schunk and Pajares (2009) explain, “What is lacking is putting that knowledge to greater use by altering school and classroom structures, the content of teacher education programs, and educational policies” (p. 51). Through qualitative inquiry, it was the intended goal of this study to inform practice in accordance with this depiction by addressing gaps in the literature regarding how self-efficacy develops among high-achieving first-generation college students and influences their academic achievement and overall success in college.

It is important at this juncture to provide at least a brief rationale for why I chose a qualitative research design over a quantitative one. As previously discussed, there are several examples of studies that have challenged the empirical link between self-efficacy and achievement (Ramos-Sanchez & Nichols, 2007; Solberg et al., 1993; Torres & Solberg, 2001). Although these inconsistencies cannot be overlooked, the consistency of numerous other studies in establishing this relationship has been compelling (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon, Brown & Lent, 1991; Pajares, 1996). In fact, Schunk & Pajares (2009) go as far as to pronounce, “We believe that we are past the point of needing to determine whether self-efficacy is correlated with academic motivation and attainments in varied domains. Studies in which these relations are investigated are becoming redundant” (p. 50). For this reason, particularly in its design, the study aspired to go beyond examining the relationship between self-efficacy and academic achievement in such a way that has been so extensively addressed in the literature.
Interpretive Framework

The research paradigm that was adopted for this can most accurately be described as a combination of social constructivist and pragmatist frameworks.

Self-efficacy, which was used as the theoretical basis for the study, is a cognitive process that evolves over time and involves interplay between the individual and their environment, two ever-changing entities (Bandura, 1977). Creswell’s (2012) description of social constructivism as a paradigm in which “multiple realities” are constructed as a result of individuals’ interactions with their respective environments is particularly applicable to the tenets of self-efficacy theory. However, paradoxically, this study’s intent to utilize a theory as a starting point for inquiry was atypical of a social constructivist orientation, at least according to Creswell (2012). He explains that open-endedness is greatly valued within this framework because it allows ample opportunity for multiple interpretations to emerge from the data. Merriam (1998) provides helpful insight in reconciling this seeming contradiction by explaining that interpretive (i.e. social constructivist) case study research can indeed be useful in testing existing theory, something that may hold greater value than simply providing more generalized and amorphous descriptions of a phenomenon. This study did not intend to utilize theory in a constraining fashion, but rather as an explanatory filter. As such, participants had every opportunity to convey meaning and provide descriptions independent of any theoretical boundaries.

Pragmatism, the second interpretive framework this study adopted, is highly focused on the outcomes of research and how they can inform practice (Creswell, 2012). This aligned with the overarching intention of the study. In order to adequately address the research questions for the study, Creswell (2012) contends the researcher must often reject, at least to some extent, what has traditionally been presented as reality in order to shed light on novel and/or effective
interventions. Self-efficacy, a socially constructed cognitive process (Bandura, 1977; Schunk & Pajares, 2009) provided a theoretical pathway not only for rejecting what is “reality” or a “law of nature” (Creswell, 2012), but also in terms of highlighting opportunities toward the refinement of practice.

The social constructivist and pragmatic perspectives for this study were not wholly extricated from one another. Rather, they were cyclically linked since the social construction inherent in self-efficacy formation and reflection was ultimately relied upon to validate approaches promoting success among FGS. This process continued repeatedly throughout the data analysis phase of the proposed study.

**Figure 1.** Visual representation of process the study followed. Note the emphasis on social constructivist and pragmatic interpretive frameworks.

At its core, this study was intent on understanding the development and impact of self-efficacy on first-generation college students irrespective of any single reality we might know
about them. However, it was also my position that a theoretical starting point was a necessary inclusion if the question of practical utility was to be appropriately addressed. Given its robust literature base, self-efficacy was an ideal theoretical foundation for the study.

As discussed, this qualitative study adopted a multiple case study design utilizing a combination of social constructivist and pragmatic frameworks. This most accurately reflected the study’s acknowledgment of multiple realities in the interpretation of individuals’ lived experiences as well as the equally important goal of the study to directly inform educational practice as it related to the academic success of FGS.

**Significance of the Study**

Terenzini et al. (1996) pointed out first-generation and continuing-generation college students do not differ in terms of learning gains over the course of their collegiate experiences. Yet, the research has repeatedly suggested their achievement does (Lindholm, 2006; Mehta et al., 2011; Pascarella et al., 2004; Pike & Kuh, 2005; Richardson & Skinner, 1992). For FGS, there are disproportionate outcomes in terms of their capabilities translating to achievement. This paradox has not been adequately addressed, as previous literature has been constrained by 1) an overreliance on quantitative data, 2) a minimal focus on the self-efficacy of FGS, and 3) a general lack of attention to high-achieving first-generation college students. This study intended to further explore these gaps.

Pajares (2001), a prominent self-efficacy researcher, wrote the following:

There can be little psychological distance between the fear that others will think us incompetent and the suspicion that we may be so, the suspicion that our accomplishments may be ill deserved. And how could fear and suspicion not be chaperoned by pessimism (p. 32)?
The overwhelming majority of what is known about first-generation college students provokes fear and suspicion about their prospects for success, evident by the rehabilitative and deficit-oriented programs and policies commonly designed for them (Green, 2006). This study sought to further explore the “psychological distance” that Pajares (2001) alludes to and perhaps, in the process, shed light on sources of optimism and inspiration in terms of educating first-generation college students.

Self-efficacy provides a theoretical lens whereby we could begin to shift from simply highlighting what is wrong, what is needed, or how things should be with respect to FGS and toward honoring the inherent capacity of the individual to achieve. Some rather compelling studies have found self-efficacy accounts for up to 25 percent of the variance in predicting academic outcomes irrespective of instructional influences (Multon et al., 1991; Schunk & Pajares, 2009). By better understanding the role self-efficacy plays in molding the collegiate experiences of FGS, we can finally begin to discover ways in which we can meaningfully address the aforementioned achievement gap between FGS and their continuing-generation peers. In this regard, self-efficacy can be used as a vehicle for promoting FGS learning and achievement in college and, ultimately, to spark social change.

**Definitions**

The following section will provide definitions of terms used in the study. It served as a means to ensure definitions were applied consistently as the study moved forward.

**Self-Efficacy**

Self-efficacy served as the theoretical foundation for this study. It was used primarily as an explanatory and analytical lens through which the experiences of high-achieving FGS participants at a four-year Hispanic Serving Institution (HSI) were analyzed.
Self-efficacy is generally defined as “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Mullen, 2012, p. 220), a definition that was adopted for the study. Self-efficacy is a process in which behavior, the individual, and the external environment interact to produce some subsequent action or inaction, an idea Bandura (1977) referred to as triadic reciprocity or reciprocal determinism.

Importantly, self-efficacy was not and should not be used interchangeably with other motivation constructs such as self-esteem, locus of control, outcome expectations, and self-concept. These are all empirically distinct constructs that have been shown to relate to self-efficacy to varying degrees, but lack its predictive power as it relates to academic achievement (Pajares, 1996; Schunk & Pajares, 2009). These distinctions will be made clearer in Chapter Two as, among other things, some of the literature on these related constructs will be presented.

**High Achievement**

High achievement will be defined on the basis of continued enrollment in the institution’s honors program. This is a logical population to recruit from given the program’s rigorous academic standards not only in terms of initial acceptance, but also in terms of year-to-year requirements for remaining in good standing, particularly from an academic standpoint. For example minimum academic criteria for incoming freshmen to be considered for admission are a 3.5 weighted grade point average (GPA) and 1850 or 28 score on the SAT and ACT, respectively. After that, students are required to maintain a minimum 3.3 GPA and participate in a variety of academic enrichment workshops and activities.

**First-Generation College Students (FGS)**

For the purpose of this study, first-generation college student was defined as any postsecondary-level student who came from a family where neither parent/guardian had earned a
bachelor’s degree (Choy, 2001). Emphasis was placed on interpreting FGS experiences specifically and intentionally through the theoretical lens of self-efficacy.

**Continuing-Generation College Students**

For the purpose of this study, continuing-generation students were defined as any postsecondary student with at least one parent and/or guardian who had earned a bachelor’s degree. Students whose parents earned educational credentials outside of the United States were not considered continuing-generation.

**Summary**

This study attempted to understand the role self-efficacy plays in the collegiate experiences of FGS. In doing so, it addressed three important gaps in the literature. These included 1) an overreliance on quantitative data in examining self-efficacy among college student populations, 2) sparse attention to the self-efficacy of FGS, and 3) a general lack of attention to high-achieving first-generation college students.

First, an overwhelming number of self-efficacy studies are quantitative and somewhat narrow in terms of focus (Schunk & Pajares, 2009). As a result, their practical utility is limited because they do not illuminate the impact institutional environments can have on the experiences and perspectives of college students, including FGS (Schunk & Pajares, 2009). For the most part, self-efficacy research is lacking the rich descriptions inherent in qualitative analysis; this constitutes an important gap in the literature. This study intended to address this gap by qualitatively examining the self-efficacy of FGS in accordance with the interpretive framework described above.

Second, despite previous studies highlighting the uniqueness of first-generation college students as a subgroup (Pascarella et al. 2004; Terenzini et al., 1996), the vast majority of self-
efficacy research has focused on the general college student population. This traditional approach fails to heed the warning of self-efficacy researchers who claim increasingly diverse student populations at higher education institutions will add considerable complexity to understanding self-efficacy, particularly among traditionally underrepresented groups (Schunk & Pajares, 2009).

Third, by centering on high-achieving first-generation college students, the study hoped to shift the conversation away from deficiency and toward a genuine curiosity about the potential for these students to be successful in collegiate settings. Most of the FGS literature focuses on deficiency as opposed to success. This has led many interventions and policies intended for first-generation college students to be rehabilitative in nature (Green, 2006; Rendon, 1992).

This chapter has served to provide an introduction to self-efficacy as it relates to first-generation college students, as well as a rationale for its inclusion as the theoretical foundation for the study. However, given the relative lack of direct theoretical connections that have been established in the literature, a more detailed review is needed to further establish coherence and purpose for the study. In doing so, the importance and rationale for the study will become clearer.
CHAPTER TWO
LITERATURE REVIEW

Literature on both first-generation college students (FGS) and self-efficacy has been largely descriptive and quantitative (Gibbons & Borders, 2010; Green 2006; Schunk & Pajares, 2009). Additionally, research has not focused specifically on self-efficacy among high-achieving FGS or, for that matter, FGS in general. Given that, an opportunity existed to better understand success among FGS in the context of a theory with a rather compelling research base. This qualitative study intended to address these gaps by focusing on the self-efficacy experiences of high-achieving first-generation college students enrolled in an honors program. Data was analyzed through the lens of self-efficacy, an empirically validated construct that helped explain how the development of students’ self-assessments of capability supported their academic achievement, and vice versa.

Establishing theoretical and philosophical connections between self-efficacy, FGS and student retention was needed to provide a basis for this study. As was discussed in Chapter One, these elements had mostly been addressed independent of one another. While this chapter provides a comprehensive overview of FGS and self-efficacy, it also examines them in relation to one another. In doing so, critical connections between the major theoretical elements in the study are highlighted. First, I discuss self-efficacy as a standalone construct. Second, I examine the literature on first-generation college students, including the identification of gaps in this literature. The chapter concludes with an analysis of how self-efficacy theory, the literature on FGS and student retention perspectives intersect and, in doing so, formed a rationale for the study.
Self-Efficacy: Laying the Theoretical Foundation

Bandura (1977) developed social cognitive theory as a basis for explaining how human cognition influences behavioral choice over time. Self-efficacy is a primary component of social cognitive theory and its definition has remained remarkably consistent over time, with the most common characterization being “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Mullen, 2012, p. 220).

Self-efficacy has been shown to have considerable explanatory and predictive power in relation to task persistence, motivation, resilience and achievement (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon, Brown & Lent, 1991; Pajares, 1996; Zimmerman, 2000). Bandura (1977) found that self-efficacy predicted performance regardless of task difficulty. Additionally, individuals who demonstrated higher self-efficacy exerted greater effort and persisted longer than those who demonstrated lower self-efficacy. Schunk & Pajares (2009) reinforced these findings, adding that self-efficacy also influenced the activities individuals chose to pursue among a representative sample of high school students. Controlling for instructional influences, self-efficacy has been found to account for up to 25 percent of the variance in terms of predicting academic performance (Multon et al., 1991; Schunk & Pajares, 2009).

Given that this study took place at a Hispanic Serving Institution (HSI), it should also be noted self-efficacy findings have maintained reliability and validity across racial and ethnic lines. Not only were Solberg and others (1993) able to draw connections between self-efficacy and existing models of Hispanic mental health, but also developed the College Self-Efficacy Inventory, a statistically reliable and valid scale, from a sample of 164 Mexican-American and Latino-American college students. More recently Griffin (2006), whose investigation informed
the research design for the study, found the core tenets of self-efficacy and similar motivation constructs were applicable to the collegiate experiences of high-achieving Black students enrolled in an honors program.

The applicability of self-efficacy as a theoretical model extends beyond the educational realm as well. Similarly compelling results have been found in a variety of fields, including health, business, and vocational psychology (Bowleg, Belgrave & Reisen, 2000; Kadden & Litt, 2011; Marcus, Selby & Niaura, 1992; Jones & Menzies, 2000; Ramos-Sanchez & Nichols, 2007; Schunk & Pajares, 2009;). Pajares (1996) highlighted that a greater sense of self-efficacy strengthens individuals’ resilience in the face of failure or challenge threat, a trend that has also played out in studies spanning a wide range of disciplines. Although educational contexts, specifically within higher education, were ultimately the focus of this study, it remains important to highlight that self-efficacy has been extensively and successfully applied in a variety of other domains as well. In this regard, it is more a general theory of human cognition and behavior than solely applicable within a narrow contextual window.

Bandura (1986) contended that self-efficacy, and human action in general, is the result of a multifaceted interaction known as reciprocal determinism, or triadic reciprocality. This interplay is constantly informed and influenced by back-and-forth interactions between individual factors (i.e. thoughts, biological processes, and orientations), the environment and behavior (Schunk & Mullen, 2012; Schunk & Pajares, 2009;). Importantly, behavior is not an end point, but a product of cognitive functioning with the potential to influence subsequent cognition. This cycle is undoubtedly a critical aspect of Bandura’s overall theory, particularly as it relates to self-efficacy.
However, simply understanding reciprocal determinism without also highlighting the factors that influence how individuals navigate the cycle of self-efficacy is akin to learning about a car without also learning about fuel. According to Bandura (1977) the vehicle of reciprocal determinism, of which self-efficacy is an offshoot, is fueled by four primary sources of information.

**Mastery/Lived Experiences**

As individuals cultivate successful experiences within a particular domain of functioning (i.e. pain tolerance, spelling ability), expectations for success subsequently increase. Experiences of failure have the same impact. Over time, although a single experience is unlikely to have a dramatic positive or negative impact, the individual will eventually develop “perceived capabilities about performing actions at designated levels” (Schunk & Mullen, 2012, p. 220) relative to a particular domain (Bandura, 1977; Schunk & Pajares, 2009). Mastery experiences are considered to hold the greatest potential for influencing self-efficacy, since they are rooted in the lived experiences of the individual as opposed to less influential social comparisons (Schunk & Pajares, 2009). In a report examining the college attendance patterns of low-income students, The College Board (1996) highlighted an example relating to education, “Not surprisingly, students with ‘A’ grades are more likely to attend college” (p. 9). Conversely, despite reporting that college attendance is important, participants in Lindholm’s (2006) study who decided not to attend explained that negative experiences both at home and within the school environment played a large role in their decisions. These findings are consistent with Bandura’s (1977) original description, in which he suggested the nature of experiences can greatly influence the development of resilient or self-defeating orientations among individuals over time. However, it is equally important to note expectations of success or failure can hold just as much influence as
actual experiences (Bandura, 1977; Chemers, Hu & Garcia, 2001; Griffin, 2006; Hsieh, Sullivan & Guerra, 2007; Schunk & Mullen, 2012; Schunk & Pajares, 2009). Learning more about how the mastery/lived experiences of FGS have molded their sense of self-efficacy and informed their academic achievement was at the core of this study.

**Vicarious/Modeled Experiences**

Vicarious (or modeled) experiences generally have a weaker impact on self-efficacy, are more prone to change and can be easily overpowered by subsequent performance (Bandura, 1977; Schunk & Pajares, 2009). Importantly though, Schunk and Pajares (2009) point out the impact of vicarious experiences is maximized when individuals perceive models as similar to themselves. Gladwell (2013) describes a similar dynamic, “We form our impressions not globally, by placing ourselves in the broadest possible context, but locally—by comparing ourselves to people in the same boat as ourselves” (p. 78). As such, the availability and perceived success of potential models becomes an important aspect to consider in terms of promoting individuals’ self-efficacy. Richardson and Skinner (1992) highlight that support programs for FGS commonly stress the development of peer networks in promoting collegiate success. In doing so, the goal is to make the institutional environment seem smaller, or “scaled down” (p. 37). However, many of the environments created as a result of this approach are overly homogeneous from a demographic standpoint. As the authors explain, “Racially and ethnically based support groups whose members come from backgrounds of severely limited opportunity sometimes exert a negative influence by reinforcing each other’s low expectations for achievement and feeling of alienation from the system” (p. 38). This is paradoxical; the way many FGS programs are structured may actually provide lower quality models for students which, of course, contradict their original purpose. This issue, which will be discussed in greater
detail in a later section, was of great interest to this study and an important reason for focusing on FGS who had been exposed to environments that exude high expectations by placing special emphasis on high achievement (i.e. honors programs).

**Social/Verbal Persuasion**

Over the course of our lives, others communicate messages that may positively or negatively influence self-efficacy within a particular domain of functioning (Bandura, 1977; Schunk & Pajares, 2009). Similar to vicarious/modelled experiences, social/verbal persuasion has a relatively weak impact on self-efficacy and is likely to be overshadowed by previous or subsequent performances (Bandura, 1977; Bandura, 1997; Pajares, 1996; Schunk & Mullen, 2012; Schunk & Pajares, 2009). Bandura (1977) cited numerous examples of studies where verbal persuasion alone yielded either weak or no effects on individuals undergoing treatment for phobias. However, in an educational context, social/verbal persuasion holds much greater, albeit limited, value. In a qualitative study examining the “memorable messages” first-generation students had received from college-level mentors, Wang (2012) found that participants reported words of encouragement as making a positive difference in their collegiate experiences. However, consistent with Bandura’s theory, the author emphasized messages “could also prove to be competing and contradictory” and, thus, a potential drain on students’ self-efficacy. A final pitfall with respect to social/verbal persuasion is the quality of the persuasion itself. Schunk and Pajares (2009) explain:

> Persuaders play an important part in the development of an individual’s self-efficacy. But social persuasions are not empty praise or inspirational statements. Effective persuaders must cultivate people’s beliefs in their capacities while at the same time ensuring that the envisioned success is attainable (p. 37).
Framed this way the notion of verbal persuasion takes on a bridge-like character consistent with teaching or coaching, where feedback and the provision of opportunities for skills development increase the likelihood of subsequent performance accomplishments. For this study, I was interested in analyzing examples of this dynamic as it related to the collegiate experiences of high-achieving first-generation college students.

**Emotional Arousal**

Physiological responses such as anxiety and stress can influence self-efficacy, as can the absence of these responses. Phobias are instructive in explaining this source of self-efficacy information. For example, if an individual experiences increased heart rate and general anxiety at the sight of a snake, their sense of self-efficacy in successfully managing that situation is likely to be negatively impacted. Predictably, in educational contexts, Schunk & Pajares (2009) suggested promoting healthy emotional states might contribute toward higher levels of self-efficacy. However, others found that stress-related factors such as text anxiety have been shown to be less predictive of student achievement than self-efficacy (Chemers et al., 2001; Zajacova, Lynch & Esplanade, 2005). As is the case with vicarious/modeled experiences and social/verbal persuasion, the impact of emotional arousal on the self-efficacy of individuals is limited. Additionally these studies have often asked participants to make assessments of stress over a relatively short period of time. This approach was at odds with the goals of this study; for this reason, I chose not to include this source of self-efficacy information in my investigation.

Self-efficacy is the product of a complex series of ongoing interactions, interpretations and behaviors. In this way, self-efficacy is constantly socially constructed and deconstructed through the quality and quantity of stimuli in our environments. Mastery/lived experiences, vicarious/modeled experiences, social/verbal persuasion and emotional arousal all have the
potential to positively or negative influence individuals’ belief in their capacity to achieve
(Bandura, 1977; Schunk & Mullen, 2012; Schunk & Pajares, 2009). However, in addition to understanding what constitutes self-efficacy, it is equally important to consider its conceptual and practical limitations as a construct.

Self-Efficacy Measurement

As has been discussed, an extensive number of studies have repeatedly validated self-efficacy as a motivation construct, particularly as it relates to academic achievement (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon, Brown & Lent, 1991; Pajares, 1996; Zimmerman, 2000). Most have aligned themselves with Bandura’s (1986) admonitions regarding the formal measurement of self-efficacy, most notably that self-efficacy studies focus on a specific “domain of functioning” rather than seeking to measure self-efficacy on too broad of a level. In their meta-analysis, Multon, Brown and Lent (1991) found that previous studies attempting to measure self-efficacy universally rather than targeting functional areas consistently yielded the lowest statistical effects. This is intuitive, since one cannot necessarily be expected to have a consistent sense of capability across academic subjects such as science and literature, let alone other domains of human functioning and emotion.

However, in scanning the nature of previous studies, a weakness in the literature base emerges. That is, most investigations have not looked at self-efficacy qualitatively. In fact, most of the studies cited above have adopted similar methodologies where participants complete surveys about their self-efficacy before and after some kind of instructional intervention. Schunk and Pajares (2009) have described this kind of quantitative research in the area of self-efficacy as redundant at this point, given how it has been repeatedly shown to influence academic
achievement at various levels of the educational pipeline and across a wide range of functional areas when measured appropriately.

Although it is important to discuss the measurement of self-efficacy in order to highlight why it was adopted as an interpretive filter for this study as well as for the sake of completeness, it should also be noted the study did not intend to formally measure self-efficacy. Rather, my intention was to connect the collegiate experiences of high-achieving first-generation students with the core theoretical elements of self-efficacy in more process-oriented fashion (Bandura, 1977; Pajares, 1996; Schunk & Mullen, 2012).

**Self-Efficacy: What It’s Not**

The previous section detailed the theoretical pillars of self-efficacy, in addition to emphasizing their relevance to this study. However, the original theory and subsequent research has highlighted two misconceptions with respect to self-efficacy that deserve mention here. These include the term’s usage and its relationship with actual performance ability.

In both research and practice, self-efficacy has been mistakenly used interchangeably with expectancy value theory and other motivation-based constructs (Pajares, 1996). While some of these constructs have proven to be at least somewhat theoretically and empirically similar to self-efficacy, others have not. In either case, the importance of distinguishing self-efficacy from its theoretical contemporaries is obvious. Not only does this kind of misapplication adversely impact the quality of research, but also clouds our understanding in practice.

**Expectancy Value Theory (EVT)**

Expectancy value theory shares some theoretical elements with self-efficacy. For example both depict human behavior as an active cognitive process informed by the individual and their environment. Also, both theories present outcome expectations as a core informant of
human behavior (Wigfield & Eccles, 2000). However, unlike self-efficacy, EVT does not consider how ability beliefs influence human behavior. Paraphrasing Bandura’s original rationale, Pajares (1996) explains, “Judgments of personal competence differ from judgments of the likely consequence that behavior will produce” (p. 558). Given that, perhaps it is not surprising that efficacy expectations better predict both performance and choice to a greater extent than outcome expectations do, which are often determined by our own self-assessments of capability (Pajares, 1996). Despite their similarities, it remains important to acknowledge the theoretical elements that clearly distinguish EVT from self-efficacy.

Pajares (1996) points out the primary distinctions between the constructs center on the question individuals ask themselves. Self-efficacy requires the individual to assess their ability relative to a particular task; other motivation constructs address sometimes vastly different questions. Schunk & Pajares (2009) provide an overview of the following motivation constructs most commonly and incorrectly associated with self-efficacy: self-concept, self-esteem, perceived control and self-confidence.

**Self-Concept**

As is the case with self-efficacy, self-concept requires the individual to make socially constructed self-assessments through interactions with their environment. However, self-concept asks individuals to make a generalized self-perception that is not anchored to any particular domain of functioning. As a result, self-concept is not as dependent on context and domain specificity as self-efficacy. Despite this critical difference, it has been suggested that a positive self-concept may be at least partially dependent on a higher sense of competence and self-efficacy (Bandura, 1997; Pajares, 1996; Schunk & Pajares, 2009). As Schunk and Pajares (2009) summarize:
Self-efficacy beliefs are cognitive, goal-referenced, relatively context-specific, and future-oriented judgments of competence that are malleable due to their task dependence. Self-concept beliefs are normative, typically aggregated, hierarchically structured, and past-oriented self-perception that are more stable due to their sense of generality (p. 39).

Self-Esteem

Although the constructs are markedly different, self-esteem is another motivation construct commonly associated with self-efficacy. Self-esteem asks individuals to make determinations about how they feel about themselves. These generalized assessments are often unrelated to the specific competence assessments that are the hallmark of self-efficacy (Bandura, 1977; Bandura, 2006; Pajares, 1996; Zimmerman, 2000). Schunk and Pajares (2009) provide an apt practical example, “Many capable students approach their academic tasks with high self-efficacy for learning despite their academic skills being a source of low self-esteem because their classmates view them as nerds or geeks” (p. 40).

Locus of Control

Otherwise known as perceived control, locus of control is generally defined as the individual’s belief that they can control events in their lives (Bandura, 2006; Schunk & Pajares, 2009). Although Schunk & Pajares (2009) point out that self-efficacy may be a part of determining a sense of perceived control, they also highlight the fact that these personal agency assessments often fail to account for social influences (or lack thereof) in the individual’s environment (i.e. social support) as well as the individual’s actual performance ability. Individuals must ask themselves whether they can control events irrespective of social influences.
and performance ability, something self-efficacy frames as a clear impossibility (Bandura, 1977; Pajares, 1996; Schunk & Pajares, 2009).

**Self-Confidence**

Of the constructs outlined above, self-confidence and self-efficacy are arguably the least related to one another. Self-confidence is a generalized term devoid of contextual specificity and a strong empirical base. Despite the fact that positive self-efficacy assessments often reflect a degree of confidence, it remains very possible for an individual to be confident of performance failure (Pajares, 1996; Schunk & Pajares, 2009). Thus, these two constructs are clearly different and only marginally related to one another.

**Self-Efficacy and Performance Ability**

As previously discussed, a number of studies have established a clear link between self-efficacy and achievement (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon, Brown & Lent, 1991; Pajares, 1996; Zimmerman, 2000). However, it is critical to highlight the fact that self-efficacy judgments are not necessarily reflective of actual performance ability. Schunk and Pajares (2009) explain, “No amount of self-efficacy will produce a competent performance when students lack the needed skills to succeed” (p. 37). Actual performance ability is ultimately the most important factor in determining achievement (Bandura, 1997; Pajares, 1996; Schunk & Pajares, 2009). Despite that, it remains important to recall that self-efficacy does not solely influence achievement; it also influences task persistence, effort and resilience. Therefore, regardless of actual performance ability, self-efficacy can still have an impact on performance in terms of the amount of effort an individual is willing to exert on a given endeavor, particularly in response to failure. In fact, it is
very possible for individuals to have high levels of performance ability and low self-efficacy, and vice versa (Pajares, 1997; Schunk & Mullen, 2012; Schunk & Pajares, 2009).

Calibration

The extent to which individuals’ accurately assess their own capabilities is formally known as calibration. While overestimation or underestimation of performance ability does not influence the actual measurement of self-efficacy, it can certainly diminish our practical ability to predict performance on the basis of measured self-efficacy and develop interventions. Schunk & Pajares (2009) point out that slightly overestimated performance assessments are actually best since they tend to maximize task effort and persistence. However, particularly in educational settings, drastic overestimations or underestimations can potentially limit the effectiveness of subsequent interventions and adversely influence student performance. In this study, overestimating or underestimating the actual influence of a particular experience or interaction over the course of one’s collegiate career could have skewed the nature and subsequent analysis of the data, something that is addressed as a limitation in Chapter Six. However, this remains a common limitation in self-efficacy research that has not appreciably diminished its empirical value.

In this section, it has been a primary focus to highlight the inherent uniqueness and limitations of self-efficacy as a motivation construct. Now that the theoretical strengths and limitations of self-efficacy have been presented, we can begin considering how it has been studied and applied in educational contexts, particularly those in higher education. The next section will provide an overview of self-efficacy as it relates to educational environments.
Self-Efficacy and Education

According to Schunk and Mullen (2012), a considerable amount of self-efficacy research specific to education has been focused at the K-12 level (Schunk & Mullen, 2012). These studies have generally focused on topics ranging from dropout prevention (Schunk & Mullen, 2012) to student performance in a variety of specific subject areas (Schunk & Zimmerman, 2006; Zimmerman, Bandura & Martinez-Pons, 1992). Although the majority of them were only marginally relevant to this study, there were several emerging themes within these findings that were indeed relevant. In addition to presenting some applicable K-12 findings, this section will also present self-efficacy research that has been conducted specifically in collegiate settings.

Self-Efficacy and K-12 Education

Schunk and Pajares (2009) contend that peer and teacher influences, particularly at the K-12 level, have the potential to impact self-efficacy either positively or negatively. Simply put, the social aspect of the educational environments in which students are expected to learn and grow is a critical influence on their self-efficacy and achievement. Schunk and Mullen (2012) explain, “Children affiliated with highly motivated groups change positively, whereas those in less motivated groups change negatively” (p. 227). Not only is this consistent with the aforementioned sources of self-efficacy information, particularly vicarious Modeled experiences, but also provides educationally relevant examples of some of the specific contextual factors that are important in molding students’ self-efficacy. Given that, if the research on first-generation college students is to be believed, one has to consider the extent to which deficient educational environments have yielded deficient outcomes, including students’ deciding to forego college altogether (Lindholm, 2006). While programs intended to serve these students have been decried as exclusionary and rife with low expectations (Rendon, 1992; Richardson & Skinner, 1992),
others have yielded vastly different outcomes. For example, in a qualitative study by Hebert and McBee (2007) examining an undergraduate honors program, students reported “significant” intellectual and psychosocial growth as a result of the experiences and challenges the program and its staff facilitated for them. Clearly, the importance of quality environments in promoting student development extends beyond the K-12 level and is relevant to the conversation about self-efficacy and achievement among first-generation college students. As has been discussed, this study was particularly interested in dissecting the impact educational environments had on the development of self-efficacy and its influence on the academic achievement of high-achieving first-generation college students.

Additionally, and perhaps most important, Jacobs, Lanza, Osgood, Eccles and Wigfield (2002) found that self-efficacy and academic motivation decline as students proceed through school. Referencing an earlier study (Schunk & Meece, 2006), Schunk and Pajares (2009) attributed this decline to the following factors: “greater competition, more norm-referenced grading, less teacher attention to individual student progress, and stresses associated with school transitions” (p. 43). At particular risk for this decline are students who are “poorly prepared to cope with ascending academic challenges,” a common characterization of FGS as a whole (Mehta et al., 2011; Pascarella et al., 2004; Richardson & Skinner, 1992; Schunk & Pajares, 2009; Terenzini et al., 1996). However, virtually all of these studies adopt a relatively simplistic orientation preoccupied with outcomes (i.e. graduation, academic achievement, student involvement etc.) as opposed to critically examining the underlying processes and environments FGS must navigate in order to achieve success. Self-efficacy provides an opportunity to delve deeper into previous claims about both FGS and educational contexts at the collegiate level. This
issue will be addressed in greater detail in later sections. For now, it is important to highlight the considerable amount of self-efficacy research within higher education.

**Self-Efficacy and Higher Education**

There are numerous studies of self-efficacy among college student populations. Previous researchers have suggested that, controlling for instructional influences, self-efficacy accounts for up to 25 percent of the variance in student achievement (Gore, 2006; Multon et al., 1991; Schunk & Pajares, 2009). Thus, a direct link exists between self-efficacy and student achievement, particularly in the classroom (Bandura, 1997; Barrows, Dunn & Lloyd, 2013; Bong, 2001; Chemers et al., 2001; Choi, 2005; Finney & Schraw, 2003; Majer, 2009; Schunk & Mullen, 2012; Zajacova et al., 2005).

However, just as compelling are those studies that have demonstrated the indirect influence self-efficacy beliefs can have on student achievement and success. For example, Coutinho (2008) found that self-efficacy positively influenced college students’ metacognition which, in turn, enhanced their performance. Other studies have found self-efficacy limits the impact of stress on test performance (Barrows et al., 2011; Zajacova et al., 2005) as well as students’ reported sense of burnout (Breso, Schaufeli, & Salanova, 2011). Self-efficacy has even been linked with students’ overall satisfaction with college (DeWitz & Walsh, 2002).

Interestingly Hsieh et al. (2007), consistent with Bandura’s (1977) original description of the theory, found that self-efficacy has an important influence on individuals’ goals and choices of tasks. The authors explain, “We found that students who are being labeled as less successful, based on their GPA (such as those who have been told they were on academic probation), adopted goals that were debilitating to their learning” (p. 470). Given the aforementioned characterization of first-generation students in the literature (Lindholm, 2006; Mehta et al., 2011;
Pascarella et al., 2004; Richardson & Skinner, 1992; Rendon, 1992; Terenzini et al., 1996; The College Board, 1996), one has to wonder what the impact of such orientations might be on how FGS interpret and navigate their collegiate experiences.

**Self-Efficacy and First-Generation College Students**

Despite that, few self-efficacy studies have focused specifically on first-generation college students. Majer (2009) found that self-efficacy among immigrant FGS enrolled at a community college predicted GPA increases one year later. Vuong and others (2010) found, in addition to GPA, student persistence among sophomore FGS was positively impacted by self-efficacy. However, despite establishing a relationship between self-efficacy and the college adjustment of first-year FGS, Ramos-Sanchez and Nichols (2007) did not find a mediation effect between self-efficacy and GPA. This finding contradicts much of the existing literature on self-efficacy (Pajares, 1996; Schunk & Mullen, 2012; Schunk & Pajares, 2009; Zimmerman et al., 1992).

Through qualitative inquiry, this study sought to gain a broader understanding of how the self-efficacy and achievement of high-achieving first-generation college students were developed and influenced throughout their collegiate careers. At this juncture, it is necessary to examine the FGS literature independently. The following section will not only provide an overview of what is known, but begin critically examining what is missing in the literature on first-generation college students.

**First-Generation College Students**

As previously discussed, the term “first-generation college student” is defined as any postsecondary-level student who comes from a family where neither parent/guardian has earned a bachelor’s degree (Choy, 2001). According to Choy (2001), these students account for an
increasing proportion of the overall college student population in the United States today, with some estimates approaching 50 percent. In 1995-1996, FGS accounted for 34 percent of student enrollment at four-year institutions, and comprised 53 percent of the population at two-year institutions during the 1995-1996 academic year. In accordance with this demographic shift, over the last decade or so, research in this area has begun to expand considerably (Pascarella et al., 2004). However, gaps persist not only in terms of what is known about FGS but in how our knowledge is interpreted and applied in practice (Green, 2006; Rendon, 1992; Richardson & Skinner, 1992; Terenzini et al., 1996).

Terenzini et al. (1996) point out that FGS research can be categorized into three empirical groups, all which generally align with the “temporal order of the college-going process” (p. 2) and the majority of which attempt to compare them to CGS (Pascarella et al., 2004). First, there are studies that examine the pre-collegiate characteristics and/or experiences of FGS. Second, other studies focus on the transition from high school to college. Third, a substantial number of studies examine persistence and graduation among FGS. The first part of this section will examine each of these elements independently in order to better understand what is known about FGS. The latter part will highlight empirical and philosophical gaps in what we know about FGS.

**Pre-Collegiate Characteristics**

Prior to college, first-generation college students are at a distinct disadvantage that is only amplified when compared to their continuing-generation peers. According to Pascarella et al. (2004), FGS have less knowledge about college itself (i.e. application, financial aid), enjoy less financial and overall support from family, have lower expectations for educational success, and are less academically prepared for the rigors of a collegiate environment. Horn and Nunez (2000) found FGS experience unique obstacles in terms of college access that adversely impacts their
enrollment and persistence. In comparison with FGS, Terenzini et al. (1996) found that FGS were more likely to come from lower-income homes, were likely to be Hispanic, had lower initial critical thinking skills and reported less socializing experiences with peers and school personnel in high school. A report by the National Center for Education Statistics (1998) yielded similarly grim findings, highlighting that FGS have lower high school GPA’s, SAT scores and educational aspirations than CGS. Rodriguez (2003) found that FGS reported feeling generally unprepared for college, and Mehta et al. (2011) suggested that these feelings of inadequacy might lead to higher levels of stress and anxiety, and adversely influence students’ decisions to enter college.

Additionally a lack of family support, or “cultural capital,” is commonly cited as a critical disadvantage for first-generation college students, particularly as it pertains to pre-collegiate characteristics (Mehta et al., 2011; Pascarella et al., 2004; Richardson & Skinner, 1992). This can impact FGS in two ways. First, family members are less able to guide students in terms of the college application process, and are less likely to provide accurate descriptions of what to expect in college both academically and socially (Mehta et al., 2011; Richardson & Skinner, 1992). Second, family members may place less value on college and thus become complicit in discouraging would-be first-generation college students from pursuing a goal that is far less understood in favor of a seemingly more practical one such as entering the workforce (Lindholm, 2006; London, 1989; Rendon, 1992; Wang, 2012). Rendon (1992), in describing her own experience, recalled her mother’s words, “How can you think of going to college if no one in the family has? That is for the rich” (p. 57).

Lindholm (2006) conducted a qualitative study examining the personal and environmental factors that contributed to students who decided not to attend college. Although
the study did not specifically focus on first-generation college students, participants’ characteristics generally mirrored those that have been empirically associated with FGS such as low-income and minority status (Choy, 2001; Mehta et al., 2011). Tragically, most participants reported having had aspirations to attend college earlier in their high school careers, but specifically cited discouragement from family and school personnel as a critical factor in their decisions not to attend college.

**High School to College Transition**

In terms of the transition from high school to college, the research describes first-generation college students as being at a similar disadvantage. Mehta et al. (2011) found that, in comparison with CGS, FGS are less involved on campus, work more hours per week, reported higher levels of stress, implemented less successful strategies to cope with stress, reported lower academic and social satisfaction, and had lower GPAs. Other studies have mirrored these difficulties (Richardson & Skinner, 1992; Terenzini et al., 1996). Pascarella et al. (2004) explain, “Not only do first-generation students confront all the anxieties, dislocations, and difficulties of any college student, their experiences often involve substantial cultural as well as social and academic transitions” (p. 250). In doing so, they reinforce the fact that external support plays a critical role in influencing the success of all students, but particularly FGS. However, as has been described, that support for FGS is often relatively inadequate and, worse, can even have a discouraging influence (Green, 2006; Lindholm, 2006; Mehta et al., 2011; Richardson & Skinner; Terenzini et al., 1996).

The attention that previous studies have paid to deficits in social transitions and contexts (Green, 2006; Pascarella et al., 2004; The College Board, 1996) for first-generation college students was particularly relevant to this study. Continuing with the theme of comparing FGS
and CGS, in examining the literature, one quickly discovers the two groups experience college quite differently. As previously discussed, in Hebert and McBee’s (2007) study, students enrolled in an honors program reported feeling as if they greatly benefited both socially and intellectually as a result of their experience. Richardson and Skinner (1992) pointed out students from college-educated families may be more adept at seeking out and gaining access to these kinds of environments. Additionally peer networks, previously cited as influencing self-efficacy (Bandura, 1977; Schunk & Mullen, 2012; Schunk & Pajares, 2009), are “most fully developed” among continuing-generation students (Richardson & Skinner, 1992). According to Richardson & Skinner (1992), these social networks “often included students at various stages in their programs, they provided role models and constructive competition and raised expectations for success.” Although this description is consistent with Hebert & McBee (2007), it runs contrary to the environments in which FGS are expected to learn and grow. Rendon (1992) described the institutional environments in which first-generation college students must learn as “inflicting pain” (p. 63). Green (2006) added the following:

For many years the deficit model approach has compelled educators to focus on academic or cultural deficits that hinder students’ adequate adaptation to the college environment. In turn policies, programs, and educational services have been created to cure these so-called ills” (p. 25).

Richardson and Skinner (1992) highlight that FGS also fall victim to stereotyping, low teacher expectations and the promotion of unhelpful and homogeneous learning environments.

**Collegiate Outcomes**

Clearly, in terms of self-efficacy, markedly different social contexts such as the ones described above are likely to produce vastly uneven outcomes for first-generation college
students. The literature on FGS certainly supports this claim. Overall, compared to continuing-generation students, FGS are more likely to leave four-year institutions after their first year, are less likely to be on track within their academic program after three years, and are less likely to attain a bachelor’s degree after five years (Pascarella et al., 2004). Strayhorn (2006) found that generational status is a significant predictor of academic achievement, accounting for 22 percent of the variance in college GPA. Although there is little difference between FGS and CGS in terms of early career earnings, CGS are more likely to enroll in graduate or professional programs (Pascarella et al., 2004). In line with previous findings, Terenzini et al. (1996) suggest these disparities can be attributed largely to FGS experiencing lower levels of academic and social integration over the course of their college experience such that, ultimately, only 24 percent of FGS earn a college degree in eight years (Choy, 2001).

However, in speculating on the source of these disparities, one is unavoidably drawn to the fact that little is known about the college experiences as well as the cognitive and psychosocial development of first-generation college students (Pascarella et al., 2004). In scanning the literature on FGS, it is clear these students navigate a precarious route through their college years. However, we are provided with virtually no theoretical bases for understanding and ultimately addressing the considerable disadvantages associated with FGS status.

The following section will address this issue by utilizing self-efficacy as a theoretical lens through which we can interpret the FGS experience. However, given that self-efficacy has seldom been used this way in relation to FGS, we must first establish theoretical parallels that strengthen the rationale for this study.
The Intersection of Self-Efficacy, FGS and Student Retention

As has been presented, self-efficacy is defined as “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Pajares, 2009, p. 220). It is a cognitive process by which individuals form assessments of performance capacity through the incorporation of relevant information in their personal and social environments. Bandura (1977) identified the following four sources of this information: mastery/lived experiences, vicarious/modeled experiences, social/verbal persuasion, and emotional arousal. Bandura’s (1977) concept of reciprocal determinism, which describes interplay between personal factors (i.e. thoughts, perspectives, biological process), the social environment and human behavior, provides a pathway for us to theoretically link self-efficacy with the broader FGS literature base. The following section will focus on two commonalities between self-efficacy and FGS research. First, the relevance of the social environment for each will be highlighted. Second, the manner in which each addresses the development of ability among FGS will be addressed. The section will culminate by connecting self-efficacy and FGS research with broader conceptions of student retention that were adopted for this study.

As has been discussed at length, a common factor among self-efficacy and FGS research is that one’s social environment matters. For self-efficacy this is certainly true from a theoretical standpoint (Bandura, 1977; Schunk & Pajares, 2009), but has also been true in applied settings. Schunk & Mullen (2012) used self-efficacy as a theoretical lens for address issues related to dropout and student motivation at the high school level. They explain,

“By interacting with others, people learn knowledge, skills, strategies, beliefs, norms and attitudes. Students act in accordance with their beliefs about their capabilities and the expected outcomes of their actions” (p. 220).
Although the authors do not specifically address FGS, they point out students from low-income and minority backgrounds are most likely to dropout and/or underachieve both in high school and college. A lower sense of self-efficacy forged through cumulative experiences of failure, discouragement and/or negativity may adversely impact students’ motivation and engagement in school settings (Pajares, 1996). Of course, the reverse can also be true. In fact, Aspelmeier, Love, McGill, Elliot and Pierce (2012) found generational status to be a sensitizing factor that actually amplified their positive as well as negative perceptions of control.

However, the problem is the social environments in which first-generation college students operate do not appear to nurture self-efficacy, at least generally speaking (Green, 2006; Lindholm, 2006; Rendon, 1992; Richardson & Skinner, 1992;). In describing the experiences of high school students who decided not to attend college, Lindholm (2006) explains, “Most onerous to participants was a generally shared perception that [guidance] counselors too often ‘assume people’s capability.’ Some, for example, recalled being openly discouraged from applying to various schools because ‘you don’t have enough money,’ ‘you’re not that smart,’ or ‘you just wouldn’t fit in there’” (p. 591). Another participant recalled, “Trying to get help from the counselors and stuff…especially to try and figure out where it would be better for me to go…was like chewing on nails. They didn’t want to deal with anything. They’re like, ‘Well, the wall’s over there with all the information. Go read it’” (p. 591). Gradually, participants reported feeling less and less as if college was a viable option for them, with 43 percent of men and 29 percent of women in the study reporting that school personnel played a critical role in their decision not to attend college. Given that, perhaps the general decline of self-efficacy among students as they progress through school is not a surprising trend, particularly among first-generation college students (Jacobs et al., 2002).
In relation to first-generation college students at the college level, Richardson and Skinner (1992) provide a similar analysis. In their study, participants reported feeling that professors held low performance expectations for their success. They explained that this influenced the way professors treated and graded them, the latter of which has been supported empirically (Ogbu, 1978). One participant explained, “I had one instructor who gave me a C because she thought that most blacks needed C’s and that we’re used to getting C’s” (p. 36).

Rendon (1992) describes her own journey as a first-generation college student as being riddled with self-doubt, the result of negative and discouraging interactions with her social environment.

Given that, it is no wonder why “dissatisfaction with the social and emotional environment” is commonly provided as a reason why minority students perform poorly in college and ultimately leave (Richardson & Skinner, 1992, p. 36). It may also shed some light on our interpretations of FGS research. From a self-efficacy standpoint, it stands to reason that any student would struggle to succeed in a social environment that assumes deficiency and provides numerous messages of discouragement. Richardson and Skinner (1992) validate this point in highlighting that non-cognitive factors impact minority students irrespective of their academic ability or generational status. As such, perhaps understanding the genesis of disparate FGS outcomes is just as important (if not more so) than the outcomes themselves. Green (2006) reinforces this point in saying, “Studies that move beyond simply collecting numerical data (such as enrollments, grades, and test scores) are needed to better understand the complex issues that affect underserved students’ academic achievement” (p. 26). It was the intention of this study to accomplish exactly that.

However, as has been discussed, there is a limit to the impact a greater sense of self-efficacy can have on any individual. Just as influences from the social environment matter in
terms of self-efficacy and the FGS journey, so does performance ability. As previously noted, self-efficacy cannot substitute for ability (Schunk & Pajares, 2009). However, it can certainly maximize existing ability. This is an important distinction, particularly as it relates to first-generation college students.

**Conclusion**

As Rendon (1992) states, “We must set high standards, while helping students to reach them” (p. 62). Simple as it may be, this statement accurately describes the theoretical path we must follow to create responsive educational environments for FGS. Setting high standards or expectations is not typically achieved via experiential means. To explain, Terenzini et al. (1996) found that FGS are less likely to be enrolled in an honors program. Although this could be interpreted as an experience-related expectation, the bulk of standards and/or expectations are communicated verbally. Although social/verbal persuasion can certainly influence self-efficacy, it is important to recall that it has a much less enduring impact on self-efficacy in the face of experiences of failure (Bandura, 1977; Pajares, 1996; Schunk & Mullen, 2012; Schunk & Pajares, 2009). However, the relative importance of social/verbal persuasion in terms of self-efficacy cannot be understated. Certainly, it cannot be assumed that these messages are always positive, as evidenced by the FGS accounts previously presented. Nevertheless, rather than making excessively broad assumptions about the educational environments honors programs may or may not successfully cultivate, I was more interested in exploring the experiences and socially-based messages that high-achieving first-generation college students have been exposed to within these environments throughout their collegiate experiences.

The core of the connection this study sought to establish between self-efficacy and FGS research lies in the latter half of Rendon’s (1992) statement. That is, what insight can self-
efficacy provide in framing how we can support first-generation college students toward success? In one of the few studies that specifically examined self-efficacy among FGS, Ramos-Sanchez and Nichols (2007) suggested forming counseling groups for FGS that would improve their self-perceptions. Other studies have offered additional solutions including the formation of heterogeneous peer groups, increasing interactions with faculty and formally teaching strategies for coping with stress (Green, 2006; Mehta et al., 2011; Richardson & Skinner, 1992). However these are all largely suggested measures rather than specific examples of what works. The proposed study seeks to glean clear and practical examples of how self-efficacy can be nurtured and/or inhibited among FGS through the analysis of their collegiate experiences.

By using self-efficacy as a theoretical foundation for understanding and driving FGS success, this study sought to move toward reforming what constitutes successful and ethical retention outcomes for these students. Richardson and Skinner (1992) provide one student’s account regarding how institutions have come to view retention for first-generation college students, “They try to keep you there…they want every freshman who comes to graduate. I don’t know if that’s good or bad, but they want to see you graduate, not necessarily because they like you, but…so more students get degrees” (p. 41). For FGS, their experiences must determine the data, not the other way around. According to Tinto (1999), this sort of perspective can only be achieved if institutions are willing to critically examine the “character of college,” rather than addressing this issue at the “margins of institutional life.” He presents the following six conditions for student success, all of which directly relate to what has been presented about self-efficacy: 1) institutional commitment, 2) expectations, 3) support, 4) feedback, 5) involvement and 6) learning. The less institutions develop FGS interventions geared toward these elements in
favor of data that may not be fully understood, the higher the risk of becoming a “deviant institution” that is more likely to hurt than help them (Rendon, 1992).

This study sought to present self-efficacy as an applicable theoretical lens for informing how to construct positive learning environments for FGS. This chapter has contributed to this through its focus on establishing a theoretical and conceptual connection between self-efficacy, FGS and student retention. At this juncture, two gaps in the literature should be clear. First, despite the fact that self-efficacy has been repeatedly proven to predict performance (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon et al., 1991; Pajares, 1996) this relationship has received little attention specifically with FGS and/or high-achieving FGS. Second, although a number of works have offered practical suggestions for improving practice (Mehta et al., 2011; Pascarella et al., 2004; Rendon, 1992; Richardson & Skinner, 1992; Terenzini et al., 1996), these suggestions have not been formally studied and/or validated, particularly in relation to self-efficacy. The next chapter will specifically describe how this study sought to address these gaps in terms of research design and methods.
CHAPTER THREE

METHODS

The following chapter will detail various aspects relating to the methods of this qualitative study, which centrally intended to gain a better understanding of how the self-efficacy is developed among high-achieving first-generation college students (FGS) and subsequently influences their academic achievement. The chapter will begin by describing the research design that was adopted for the study. A discussion of data collection procedures will follow. Next I will discuss my role in the study, including potential biases. Data analysis procedures and how I have presented results will then be addressed. The chapter will culminate with an initial discussion about limitations for the study.

Research Design

This study utilized a qualitative case study design that adopted both the social constructivist and pragmatist frameworks as described by Creswell (2012). The social constructivist paradigm assumes “multiple realities” are constructed through individuals’ interactions with their surrounding environments. Thus meaning is highly contextual, something other prominent researchers have emphasized as being critically important to case study research (Merriam, 1998; Miles & Huberman, 1994; Stake, 1995; Yin, 2014).

Pragmatism is characterized as a similarly fluid paradigm, focused on adopting whichever research methods are necessary to ultimately ensure practical utility. This perspective also requires the researcher to be cautious in adopting supposed realities or “laws of nature.” Creswell (2012) explains, “Pragmatism focuses on the outcomes of the research—the actions, situations, and consequences of inquiry—rather than antecedent conditions” (p. 79).
These perspectives were particularly well suited for this study. First, as was discussed in the previous chapter, self-efficacy is socially constructed (Bandura, 1977), resulting from interplay between the individual and their environment. In line with previous case study, the contextual nature of self-efficacy development requires the acceptance of “multiple realities.” The social constructivist paradigm places considerable value on how individuals derive meaning from specific situations and contexts, including the researchers themselves. In telling their stories, individuals enliven the data by illuminating the reasoning behind their actions and thought processes (Lather, 1992; Robottom & Hart, 1993). For this study, I was interested in contrasting self-efficacy theory with participants’ accounts of their collegiate experiences. A case study design allowed me to clarify actions and thought process in order to better understand success for high-achieving first-generation college students at its root.

Pragmatism is quite similar to social constructivism. Both reject the notion of a static reality. Both value context, whether it be social, political or historical. Both are conducive to quantitative and/or qualitative inquiry. However, researchers adopting pragmatism specifically seek to maximize the practical utility of their work. Creswell (2012) explains, “There is a concern with applications—‘what works’—and solutions to problems” (p. 80). In line with this, the study sought to glean a set of practical approaches that promote the development of self-efficacy and, by extension, the achievement and success of first-generation college students in collegiate settings.

Griffin’s (2006) qualitative study, in which she studied academic motivation among high achieving Black college students, partially informed the design of the study. First, as in her investigation, this study sought to recruit participants enrolled in an honors program. Second, I adopted a case study approach and piloted my interview protocols in order to ensure targeted
research goals were being appropriately addressed. Third, I implemented “pattern matching,” a
deductive data analysis procedure, in order to establish connections between findings and
existing self-efficacy theory (Yin, 2014), an approach that Griffin (2006) found to be successful
in interpreting similar data as that which the study intended on collecting. However, some
important differences exist that should be noted here. First, this study focused solely on high-
achieving FGS status irrespective of racial or ethnic identity. Second, self-efficacy was
specifically and exclusively adopted as the theoretical foundation for the study. Although Griffin
(2006) cites self-efficacy, her findings are not specifically analyzed and discussed strictly via this
theoretical lens, choosing instead to center on universal theories of academic motivation.

Research Questions

In Chapter One, the research questions for the study, including sub-questions, were presented.
They were as follows:

1. How has self-efficacy been developed among high-achieving first-generation college students?
   a. What mastery/lived experiences have influenced the self-efficacy development of FGS?
   b. What vicariousemodeled experiences have influenced the self-efficacy development of FGS?
   c. What forms of social/verbal persuasion have influenced the self-efficacy development of FGS?
2. How has the self-efficacy of high-achieving first-generation college students influenced their academic achievement?
Self-efficacy and academic achievement have been extensively, and perhaps even exhaustively, linked in previous studies. In Chapter Two, a number of examples of these studies were referenced (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon et al., 1991; Pajares, 1996). However, it was also discussed that (Ramos-Sanchez & Nichols, 2007; Torres & Solberg, 2001), few studies have explored this relationship among FGS or high-achieving FGS. Although Schunk and Pajares (2009) claim “we are past the point” of needing to reinforce the relationship between academic achievement and self-efficacy, they also point out the potentially confounding influence of one’s cultural background. Providing further clarification with respect to these issues is of interest to the proposed study.

I have specifically chose to focus on high-achieving FGS for this study. There were two primary reasons for this. First, as has previously been discussed, much of the literature on FGS has highlighted numerous examples of deficiency for these students (Mehta et al., 2011; Pascarella et al., 2004; Strayhorn, 2006; Terenzini et al., 1996; The College Board, 1996). Thus, to borrow from Schunk and Pajares (2009), it appears we may also be “past the point” of highlighting simply what is wrong with FGS. As other authors suggest (Green, 2006; Macias, 2013; Rendon, 1992; Richardson & Skinner, 1992), there is a need for the literature to begin shifting toward gaining an understanding of the successes FGS experience and how we might facilitate success for this emerging student population. By focusing on the collegiate experiences, perspectives and orientations of high-achieving FGS, it was the intention of this study to forge a practical roadmap of sorts that could provide critical insight into why these students enjoy greater success than their FGS peers.
Now that the overarching perspectives, research questions and design that drove the study have been presented, it is necessary to begin specifically addressing other critical elements, including case selection, data collection, and data analysis/presentation. Additionally, and importantly, the role of the researcher as it relates to the study will be discussed.

Selection and Sampling

Student records at a four-year Hispanic-Serving Institution (HSI) in the Southeast were accessed through the institution’s registrar office in order to identify potential participants for the study. Selection was based on several eligibility criteria. First, participants needed to meet the adopted definition for first-generation college students. The adopted definition for the study was “any postsecondary-level student whose parent(s) or legal guardian(s) have not earned a bachelor’s degree” (Choy, 2001, p. 9). Second, participants were required to be enrolled in the institution’s honors program. To be admitted to the honors program as an incoming freshman, students must have a minimum high school grade point average (GPA) of 3.5 along with either an 1850 on the SAT or a 28 on the ACT. Once in the program, students are required to maintain a minimum college GPA of 3.3 and participate in a number of academic enrichment workshops and activities. As a reminder, consistent with Griffin’s (2006) rationale, I chose to equate enrollment in an honors program with the proposed study’s definition of “high achievement.” Third, participants in the study needed to be Pell Grant-eligible, as determined by their financial need. The reasoning behind this was that, with the exception of academic achievement, I wanted to focus on the most statistically common example of a first-generation college student (Pascarella et al., 2004; Terenzini et al., 1996). Lastly, participants needed to be classified as seniors, which was determined by number of credits they had earned at the time of their participation in the study; eligible participants had earned no less than ninety credits. The reason
for this criterion was that self-efficacy researchers have suggested the reported self-efficacy and/or interpretation of experiences of younger students may be less accurate, or calibrated, given their assessments are either not based on actual collegiate experiences or relatively few experiences (Schunk & Mullen, 2012; Schunk & Pajares, 2009; Vuong; 2010). Seniors were a primary focus in order to maximize accuracy in how participants interpreted their collegiate experiences. Additionally, from a practical standpoint, a greater number of experiences to draw from provided more opportunities to analyze the influence these experiences had on students’ self-efficacy and overall achievement.

Some of the most compelling qualitative studies of first-generation college students have presented in-depth narratives that shed light on the lived experiences of these individuals (Lindholm, 2006; London, 1989; Richardson & Skinner, 1992; Wang, 2012). In discussing their findings, each of these articles has provided concrete suggestions and practical illustrations for cultivating positive educational environments for FGS. This study sought to similarly yet uniquely present an in-depth description of the lived experiences of high-achieving FGS. In doing so, it was my intention to illuminate practical examples of effective educational interventions. However, unlike most of the previous studies in this area, this study intended to filter and interpret results and practical suggestions via an existing theory (i.e. self-efficacy).

A case study approach was adopted for the study for several reasons. First, researchers have commonly characterized it as one of the most effective approaches if gleaning detailed descriptions is of paramount importance to the researcher (Creswell, 2012; Miles & Huberman, 1994; Stake, 1995; Yin, 2014;). Self-efficacy is rarely shifted by one or two experiences (Bandura, 1977); thus, detailed accounts are important if we are to understand and analyze the various experiences that have influenced individuals’ self-efficacy over time. Second, a case
study approach provides considerable flexibility in terms of exploring individuals’ experiences irrespective of time and/or place (Creswell, 2012; Merriam, 1998; Miles & Huberman, 1994). This is a primary reason why I chose to adopt a case study approach as opposed to a more traditional phenomenological methodology. Although one can certainly explore self-efficacy in a self-contained setting or bounded system (Bouffard-Bouchard, 1990), I wanted to avoid excessive time/place constraint in terms of which aspects of individuals’ personal experiences could be explored. Still, in order to ensure students’ stories were shedding light on experiences (Lather, 1992; Robottom & Hart, 1993) specifically related to self-efficacy and achievement, I decided to largely structure interviews with participants.

In terms of case selection and sampling for the study, the academic records at a four-year Hispanic-Serving Institution (HSI) in the Southeast were accessed in order to identify potential participants. Importantly, selection focused on eligible participants (i.e. those meeting the criteria listed above) with the highest cumulative GPA. Assuming eligibility, prospective participants were identified and prioritized from a recruiting standpoint on the basis of their cumulative GPA. This approach ensured the recruitment of eligible participants with the highest possible cumulative GPA. Previous self-efficacy studies (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon et al., 1991; Pajares, 1996) have found a positive relationship exists between self-efficacy and academic achievement. As such, for this study, I assumed those first-generation college students with the highest cumulative GPA were also be those with the highest self-efficacy. Potential participants were recruited via email.

The demographic makeup of the honors program generally aligned with that of the institution as a whole in areas including gender, race/ethnicity and number of students eligible
for the Pell Grant. Thus, demographically speaking, the students who participated in the study reflect those typically found at the institution. Table 1 provides a demographic comparison between the honors program and the institution where the study took place:

Table 1. Comparison of Honors Program and Institution Student Demographics

<table>
<thead>
<tr>
<th></th>
<th>Honors Program</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male = 37.7%</td>
<td>Male = 43.6%</td>
</tr>
<tr>
<td></td>
<td>Female = 62.3%</td>
<td>Female = 56.2%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>African American = 10%</td>
<td>African American = 14%</td>
</tr>
<tr>
<td></td>
<td>American Indian/Alaska Native = 1%</td>
<td>American Indian/Alaska Native = &lt;1%</td>
</tr>
<tr>
<td></td>
<td>Asian = 9%</td>
<td>Asian = 3%</td>
</tr>
<tr>
<td></td>
<td>Hispanic = 72%</td>
<td>Hispanic = 63%</td>
</tr>
<tr>
<td></td>
<td>White = 25%</td>
<td>White = 11%</td>
</tr>
<tr>
<td>Percent of Population Eligible for Pell Grant</td>
<td>44%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Data Collection

According to Merriam (1998), an interpretive case study design allows researchers to explore phenomena on a deeper level. As opposed to simply offering descriptions, researchers have the flexibility to make determinations about theory that can subsequently be used to interpret outcomes or experiences. Others have provided similar characterizations of case study research (Creswell, 2012; Miles & Huberman, 1994; Stake, 1995; Yin, 2014). For this study, filtering the experiences of high-achieving first-generation college students through an existing theoretical lens represented a unique opportunity to better understand how their sense of self-efficacy and subsequent achievement has been molded over the course of their respective college careers. Additionally, it allowed for considerable flexibility in terms of analyzing a wider range of student experiences as opposed to a single one, as is the case with traditional phenomenological approaches.
Demographic survey. Prior to interviews being conducted, a brief demographic survey was administered to participants. The survey was generated using Qualtrics, and completion of the survey indicated participants’ initial consent to participate in the study. Consistent with Griffin’s (2006) approach, the purpose of the survey was to collect background information about each participant.

Pilot interview. In order to ensure findings ultimately spoke to the goals of the study, I conducted a single pilot interview. This was consistent with Griffin’s (2006) study of high-achieving Black students enrolled in an honors program, where she sought to ensure her interview protocol was structured in such a way where data collected was helpful in responding to her research questions. Slight revisions were made following the pilot interview.

Individual interviews. Despite the study’s general emphasis on context and fluidity, individual interviews were largely structured. Although the admonitions of Merriam (2009) were considered in terms of allowing sufficient flexibility for follow-up questioning, it was critical that participants provide insight into their experiences as they specifically related to the tenets of self-efficacy. For example, it could have been troublesome to glean enough information about specific instances where students have received encouragement about their prospects for success without asking directly. Still, the goal for the interviewing phase of the study was ultimately to ensure the nature of the questions asked would allow for participants’ uniqueness to emerge without sacrificing the kind of structure that ultimately assisted in identifying response themes and/or patterns in relation to existing self-efficacy theory. The aforementioned pilot interview was helpful in ensuring an appropriate balance had been achieved between flexibility and specificity in terms of participant responses.
For the study, two structured interviews were conducted approximately two weeks apart with 16 high-achieving FGS who met the selection criteria described above. Prior to the study being conducted, I designated a minimum saturation threshold of 12 participants; this participation goal was sufficiently met. The coding procedure that was adopted for the study validated the number of participants I sought to recruit. In fact, Yin (2014) held that a single-case design was sufficient in qualitative research intending to confirm or challenge existing theory; multiple case studies are described as “replications.” Nevertheless, since I was also interested in gleaning insight into the experiences of FGS from a thematic standpoint, I chose to include multiple cases in the study. With a sample of nine participants, Griffin (2006) was able to accomplish these research goals. However, primarily to maximize opportunities for themes related to self-efficacy to emerge from the data as well as to propose a greater number of practical approaches for enhancing the success of first-generation college students, I decided to propose include a larger number of participants. Morse and others (2002) explained the concept of saturation in qualitative research “means that sufficient data to account for all aspects of the phenomenon have been obtained” (p. 18). In the case of this study, defining high achievement through honors program enrollment contributed greatly to this depiction of saturation in that high achievement was framed more comprehensively than a grades-focused alternative would be. Along with the methodological rationale proposed by Yin (2014) and Griffin’s (2006) success in yielding ample data in a similar study, the number of participants I initially proposed was supported by the literature.

Next, because self-efficacy and academic achievement have been extensively linked in the literature (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon et al., 1991; Pajares, 1996), eligible
participants with the highest cumulative GPA were prioritized. Interview questions aligned with three of the four sources of self-efficacy information (Bandura, 1977; Pajares, 1996; Schunk & Pajares, 2009). These were described at length in Chapter Two. They included the following: 1) mastery/lived experiences, 2) vicariousmodeled experiences and 3) socialverbal persuasion. The final source of self-efficacy information, emotional arousal, was not specifically addressed during interviews because it has not traditionally been applied in educational settings and thus was not of particular interest to this study. Although interview questions were structured, I offered opportunities for participants to clarify responses and/or for me to ask follow-up questions (Merriam, 1998). Additionally, following each interview, participants had the opportunity to review the interview transcript for accuracy.

Information regarding potential participants was accessed via the institution’s registrar office. This office maintains the student data that was required for this study, including academic records (i.e. GPA, credits earned, transcripts etc.) as well as students’ status as far as affiliation with the honors program was concerned. Also, they confirmed first-generation status and Pell Grant eligibility as determined by students’ most recent responses on the Free Application for Federal Student Aid (FAFSA).

Once eligible participants were identified and confirmed their initial participation in the study by completing the brief demographic survey mentioned above, I invited them to meet with me in a private conference room on campus for the first of two 45-60 minute interviews. The first interview focused on asking participants to describe collegiate experiences that were related to self-efficacy. Initially, my focus was to establish rapport and build trust with each participant. This was particularly important since some of the stories and perspectives they shared during the interviews could have been sensitive in nature. Two weeks later, I invited participants for the
second 45-60 minute interview, which focused on the influence their previously identified experiences had on their self-efficacy and academic achievement in college.

All interviews were recorded using a digital audio recorder. I transcribed and coded the data manually in order to maximize familiarity and the identification of themes. Interview transcripts were sent to participants between the first and second interview in order to ensure accuracy and content recollection. Second interviews did not take place until each participant had approved transcripts. Also, after each interview, I recorded some initial thoughts to help guide my analysis. Consistent with previous researchers (Griffin, 2006; Trochim, 1989; Yin, 2014), I intended on comparing themes within the data to existing self-efficacy theory utilizing an analytical approach known as “pattern matching.” Ultimately the goal of this data analysis strategy, described in greater detail in the next section, was to speak on a broader level about the collegiate experiences of high-achieving FGS by tying them directly to existing theory.

Data Analysis

Coding Procedures

Once all interviews had been conducted, data was transcribed and coded manually using word processing software. Subsequent analysis aligned with the admonitions of Yin (2014) regarding pattern matching, the deductive data analysis procedure which was adopted for the study in order to connect findings with the broader self-efficacy literature base. He states, "Data analysis consists of examining, categorizing, tabulating, or otherwise recombining the evidence to address the initial propositions of a study” (Yin, 2014, p. 58). For the sake of clarity, the “initial propositions” of the study were that self-efficacy is applicable to the collegiate experiences of first-generation college students from a theoretical and practical standpoint.
Trochim (1989) described pattern matching as being particularly useful in interpreting data. Existing theory takes on a predictive quality in this form of qualitative analysis, and enhances the internal validity of results. To this end, this study relied heavily on existing self-efficacy theory in validating data-focused themes on a broader level. However, it is also important to note personal experience often assists in validating the data alongside theory, and thus also played a role in analyzing the data (Yin, 2014). This latter point aligned well with the pragmatism framework that was adopted for the study.

Prior to meeting with them for the first interview, participants were asked to complete a brief online demographic survey, which was created using Qualtrics and sent to them via email. On the day of the first interview, participants confirmed alternative names that were used to identify them throughout the course of the study in order to protect their confidentiality. Data was stored on a password-protected computer, and any related files were also password-protected. I reviewed a hard copy of the consent forms for the study with participants prior to any interviews being administered. Prior to signing the consent form, each participant had the opportunity to ask questions about the study and their potential involvement in it. Participants were allowed to decline and/or terminate participation at any point during the study. Prior to being used for the study, both the interview protocol and demographic questionnaire received IRB approval at Florida State University as well as the institution where the study took place.

**Strategies for Validating Findings**

As described above, I employed a member check following each 45-60 minute interview with participants. Although Morse et al. (2002) highlight the dangers of member checks in rendering data overly descriptive, it was nevertheless important for the purposes of this study that participants feel their experiences were accurately depicted in the data. Additionally, the
opportunity for participants to reflect on their described experiences prior to being interview for a second time proved invaluable in encouraging them to begin thinking about the influence these experiences had on them.

“Pattern matching,” the data analysis procedure that was adopted for this study, is described as a form of “analytical generalization,” in which qualitative research can draw on a “larger universe of cases” to validate findings (Yin, 2014). As has been extensively discussed, self-efficacy theory has a robust literature base across a variety of disciplines, including education. As such, the study had the requisite “larger universe of cases” described by Yin (2014) of which to draw from not only to validate findings, but also to initiate a broader discussion about the FGS experience.

Role of the Researcher

Creswell (2012) notes there is a significant collaborative element inherent in conducting qualitative research, whereby the researcher and participant both play critical roles in assembling and deconstructing data. As such, it is important for me to place myself within the study in order to clarify the personal lens I brought to it as a researcher.

First and foremost, I am a first-generation student who identifies as Hispanic and has gone through some of the positive and negative experiences I intended to explore in the study. Therefore, the focus of the study was of great personal importance and relevance to my own life. Although it is my opinion that passion should drive any endeavor, in this case it was critically important I allow participants’ stories and subsequent interpretations to exist independent of my own. Including self-efficacy as a theoretical basis for the study assisted with this, as did the analytical procedures described above.
Professionally, I have served as an educator in K-12 and collegiate settings, both in and out of the classroom. Most recently, I have had several opportunities to work with first-generation college students in formal support program settings. Through this work, I have come to fervently believe the verbal and nonverbal messages one receives from their environment matter in terms of influencing student success. This philosophy, which is supported considerably by the tenets of self-efficacy (Bandura, 1977), is a primary reason this study adopted such a practical focus. I hoped to better understand examples of how collegiate environments promote and/or inhibit self-efficacy specifically among first-generation college students, and to subsequently propose concrete interventions, policies and/or cautions.

However, in attempting to speak broadly about educational interventions and approaches for first-generation college students, it was critically important for me to remain cognizant of individual differences. The core tenets of self-efficacy, which emphasize the fluidity and variety of experience among individuals (Bandura, 1977; Pajares, 1996; Schunk & Pajares, 2009), was helpful in reminding me as the researcher of the limits in generalizing the data to be universally applicable to all FGS. Nevertheless, self-efficacy remains helpful in terms of framing the conversation around first-generation college students in a novel way that examines the roots of their success rather than highlighting their failure (Green, 2006; Rendon, 1992; Richardson & Skinner, 1992).

**Limitations of the Study**

Although the data analysis procedures for the study somewhat insulate it from the typical limitations of qualitative research in terms of generalizability, it remains an issue. This is particularly true because self-efficacy research has yielded uneven findings as they relate specifically to first-generation college students (Majer, 2009; Ramos-Sanchez & Nichols, 2007;
Vuong et al., 2010). Also, other researchers have surmised the accuracy of assessing one’s self-efficacy may be another issue, particularly among diverse student populations (Schunk & Pajares, 2009). Therefore, a consensus among the “larger universe of cases” described by Yin (2014) has not been completely developed as it related to this study. Some subjectivity and uncertainty remained, and must therefore needed to be included in any consideration of limitations.

Additionally, and perhaps more importantly, the uniqueness of the institution at which the study took place was also a potential limitation I identified early on. As a Hispanic Serving Institution (HSI) situated in a metropolitan area the experiences of first-generation college students could be vastly different than those of peers within other institutional contexts. This extends to other institutional factors as well, such as its size (over 40,000 students), student makeup (average student age is approaching 25 years) and general type (public, four-year institution). As such, connecting findings with existing theory was not necessarily a direct comparison. Yin’s (2014) characterization of “pattern matching” as replication assumes a level of similarity among study conditions that did not play out perfectly over the course of the study.

Lastly, the structure of the study lacked the relative immediacy of previous self-efficacy research. That is, participants were being asked to reflect on their entire college careers. Identifying specific instances that related to the goals of the study were somewhat limited because of this, and thus could have skewed results.

The preceding chapters have provided a description and rationale for this qualitative case study, which intended to examine how self-efficacy has cyclically influenced and been influenced by the experiences of high-achieving first-generation college students. Self-efficacy, an empirically supported theory and construct, was adopted as a foundation for the study. By formally analyzing the collegiate experiences of high-achieving first-generation students through
this theoretical lens, the study intended to shed light on opportunities for enhancing educational practice as it related to these students.
CHAPTER FOUR

PARTICIPANT PROFILES

For the study, I interviewed 16 first-generation college students. This total number includes the student who participated in the pilot interview. Prior to being interviewed students were recruited via email and asked to complete a brief demographic survey as an indicator of their interest in participating. This survey is included in Appendix C. In totality, the sample for the study included 6 males and 10 females. All of the students identified as Hispanic/Latino except one, who identified as African American. 4 of the students were juniors while the remaining 12 were seniors; all of them had earned 90 or more credits at the time of recruitment. The mean age of the sample was 21.7 years. Aligning with the study’s definition of high achievement, the mean GPA of the sample was 3.66. Table 1 outlines the majors for participants in the study. Two students in the study were double majoring; therefore, the total number of students in the table below does not accurately reflect the total number of students in the study.

Table 2. Major Summary of Participants

<table>
<thead>
<tr>
<th>College</th>
<th>Major</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts and Sciences</td>
<td>Anthropology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Biological Sciences</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Criminal Justice</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Marine Biology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Psychology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Religious Studies</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Sociology</td>
<td>1</td>
</tr>
<tr>
<td>College of Engineering and Computing</td>
<td>Biomedical Engineering</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Electrical Engineering</td>
<td>1</td>
</tr>
<tr>
<td>School of Journalism and Mass</td>
<td>Public Relations</td>
<td>1</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to protect their confidentiality, participants were asked to select a pseudonym prior to being interviewed. Also, in subsequent chapters, any references students made to specific locations and/or people (i.e. friends, teachers, relatives etc.) have either been changed or deleted.
altogether. Table 2 below provides an individual summary of the aggregated participant demographics presented above.

**Table 3: Participant Demographics**

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Major</th>
<th>Classification</th>
<th>Race/Ethnicity</th>
<th>Gender</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexandra</td>
<td>Biological Sciences</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.78</td>
</tr>
<tr>
<td>Andres</td>
<td>Religious Studies</td>
<td>Junior</td>
<td>Hispanic/Latino</td>
<td>Male</td>
<td>3.7</td>
</tr>
<tr>
<td>Carolina</td>
<td>Biological Sciences</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.82</td>
</tr>
<tr>
<td>Christina</td>
<td>Biological Sciences</td>
<td>Senior</td>
<td>African American</td>
<td>Female</td>
<td>3.4</td>
</tr>
<tr>
<td>Clyde</td>
<td>Biological Sciences</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Male</td>
<td>3.87</td>
</tr>
<tr>
<td>Conchita</td>
<td>Marine Biology</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.7</td>
</tr>
<tr>
<td>David</td>
<td>Biomedical Engineering</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Male</td>
<td>3.6</td>
</tr>
<tr>
<td>Ivanna</td>
<td>Biological Sciences</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.3</td>
</tr>
<tr>
<td>Jimmy</td>
<td>Electrical Engineering</td>
<td>Junior</td>
<td>Hispanic/Latino</td>
<td>Male</td>
<td>3.17</td>
</tr>
<tr>
<td>Kathi</td>
<td>Criminal Justice</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.69</td>
</tr>
<tr>
<td>Maria</td>
<td>Public Relations &amp; Sociology</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.74</td>
</tr>
<tr>
<td>Patty</td>
<td>Psychology</td>
<td>Junior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.76</td>
</tr>
<tr>
<td>Petra</td>
<td>Religious Studies &amp; Anthropology</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>4.0</td>
</tr>
<tr>
<td>Robert</td>
<td>Biological Sciences</td>
<td>Junior</td>
<td>Hispanic/Latino</td>
<td>Male</td>
<td>3.5</td>
</tr>
<tr>
<td>Sebastian</td>
<td>Biological Sciences</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Male</td>
<td>3.75</td>
</tr>
<tr>
<td>Sophia</td>
<td>Psychology</td>
<td>Senior</td>
<td>Hispanic/Latino</td>
<td>Female</td>
<td>3.74</td>
</tr>
</tbody>
</table>

**Participant Profiles**

The following provides a brief overview of each participant’s background as was reported on the demographic survey and during our first interview. The purpose of these profiles will be to offer some reference with respect to individual participant responses and perspectives.
Alexandra

Alexandra is a senior majoring in Biological Sciences. She was born in Miami, Florida. Despite not aspiring to attend college for most of high school, Alexandra credits a friend for introducing her to a staff member at the local community college who offered to admit her to a merit-based program that would subsidize her tuition. Upon earning her two-year degree, Alexandra chose to attend the institution in the study mostly for financial reasons. Despite dealing with considerable adversity in her personal life, including the death of her mother, Alexandra aspires to attend medical school upon graduation. Neither of her parents attended college, but she has a younger sister currently attending the same institution.

Andres

Andres is a junior majoring in Religious Studies. He was born in Havana, Cuba, and moved to the United States when he was two months old. He has spent the duration of his college career at the institution in the study, which he chose primarily for convenience and a desire to attend a traditional four-year institution rather than the local community college. A self-described “slacker” in high school, Andres attributes discovering his major as an important reason for college being “the best experience of his life.” Neither of Andres’ parents attended college, and he has no siblings.

Carolina

Carolina is a senior majoring in Biological Sciences. She was born in San Cristobal, Venezuela, and moved to the United States when she was 17 years old. Upon arriving in the United States, Carolina coyly recalls applying to medical school at the institution in the study right after completing high school because she “didn’t understand the system.” After completing her two-year degree, Carolina transferred. Although she considered other options further from
home, Carolina ultimately decided to attend the institution in the study primarily because it is situation in a more convenient location for her family to travel back and forth from her native country. Neither of her parents attended college, but an older sister earned a four-year accounting degree in Venezuela.

**Christina**

Christina is a senior majoring in Biological Sciences. She was born in Miami, Florida. Christina has spent the duration of her college career at the institution in the study, a choice made at her mother’s urging after she seriously considered other college options in the state. Christina cited a lucrative financial aid award package as another important factor in her decision to attend the institution in the study. Although she is not completely sure what career path she wants to pursue after graduation, podiatry is a current interest. Neither of her parents attended college; however, two older siblings have earned degree. Her brother earned a bachelor’s degree, and is currently completing coursework toward a master’s degree. Her sister has earned a bachelor’s and master’s degree.

**Clyde**

Clyde is a senior majoring in Biological Sciences. He was born in Havana, Cuba, and moved to Connecticut when he was 13 years old. Despite not knowing the language at all initially, Clyde was placed in mainstream classes one year later and went on to have an exceedingly successful academic experience in high school. After earning a two-year degree at the local community college, Clyde chose to attend the institution in the study primarily because it would allow him to stay close to his family and continue to help them financially. He plans on attending medical school upon graduation. Neither of Clyde’s parents nor siblings has attended college.
Conchita

Conchita is a senior majoring in Marine Biology, and was born in Lima, Peru. She has attended the institution in the study for her entire college career. Due to personal reasons, she initially enrolled late, in the spring of her would-be freshman year. She chose the institution because she did not want to attend the local community college, it was her only option at that point, and she felt like it was a good option. A product of the Student Support Services Program (SSSP) and a current McNair Program participant, both federal TriO programs, Conchita was recently accepted to complete her PhD at the institution in the study. Neither of Conchita’s parents has attended college; however, one of her siblings is currently attending the institution in the study.

David

David is a senior majoring in Biomedical Engineering. He was born in Havana, Cuba, and arrived in the United States when he was 15 years old. After earning a two-year degree at a local community college, where he also had the opportunity to study abroad in Austria for two week, David was accepted to several selective out-of-state schools. However, the financial incentive to stay closer to home and attend the institution in the study was ultimately what influenced his decision. Neither David’s parents nor siblings have attended college.

Ivanna

Ivanna is a senior majoring in Biological Sciences. She was born in Bogota, Colombia, but her family later fled the country as political refugees, a decision that was made for safety but also because they wanted their children to have the opportunity to receive a better education. Although she has been at the institution in the study for the entirety of her college career, she originally wanted to attend another in-state school to which she was accepted. However,
following a successful campus visit, Ivanna chose to stay close to home. Neither of her parents attended college, while a sibling has attended the local community college but has not earned a degree.

**Jimmy**

Jimmy is a junior majoring in Electrical Engineering, a career interest which he jokingly describes began as a result of him “wanting to be the next Iron Man.” He was born in Miami, Florida, and completed his two-year degree in a dual enrollment program at the institution in the study. Although he applied to other schools and was accepted to “a few of them,” he cited the institution in the study as his only realistic option financially. Neither Jimmy’s parents nor siblings have attended college.

**Kathi**

Kathi is a senior majoring in Criminal Justice. She was born in Hialeah, Florida. Kathi considered some out-of-state options for college, but ultimately decided to attend the institution in the study because of affordability and the quality of its program within the major she originally chose. Health issues at the time were another motivating factor for staying close to home. Kathi’s father attended college but did not graduate; her mother did not attend college. She aspires to become an attorney after graduation, and has received acceptance letter from four law schools thus far. An older brother attended the institution in the study, but has since stopped attending.

**Maria**

Maria is a senior double majoring in Public Relations and Sociology. She was born in Lima, Peru, and moved to the United States when she was 14 years old. She chose to attend the institution in the study for convenience and financial reasons. Although her family encouraged
otherwise, Maria never seriously considered options far from home. Her mother earned law degrees in Peru, but they are not honored in the United States. She is currently taking courses at a local community college and plans to apply to the institution in the study for the upcoming academic year. Her younger brother is attending a community college in another part of the state.

**Patty**

Patty is a junior majoring in Psychology. She was born in Miami, Florida. Although she was accepted at two other in-state schools, Patty decided to attend the institution in the study, where she has attended her entire college career. She cited staying close to her family and receiving a full scholarship as primary motivators for her choice. She is currently involved with a project examining classroom behavior patterns as a research specialist, her primary role being to conduct observations of teachers and students at local schools. At least one of Patty’s parents attended college, but neither earned a degree. A sibling is attending the local community college, but has not graduated.

**Petra**

Petra is a senior double majoring in Religious Studies and Anthropology. She was born in Miami Beach, Florida. After completing a dual enrollment program at the institution in the study, Petra originally intended on transferring to another in-state school that was offering her desired major. However, after developing an interest in Religious Studies, she chose to stay at the institution in the study, which she described as familiar. A homeschooling product, Petra grew up admiring prominent political figures, most notably Former President George W. Bush, Former Secretary of State Hilary Clinton and President Barack Obama. Neither Petra’s parents nor siblings have attended college.
Robert

Robert is a junior majoring in Biological Sciences. He was born in Havana Cuba, and moved to the United States when he was 15 years old. He graduated high school with a two-year degree, having spent his final two years enrolled in a well-known dual enrollment program offered by the local community college. After considering some other in-state options, Robert chose to attend the institution in the study primarily because it was the cheapest option, offering him a full scholarship, and he did not want to pay for his undergraduate degree. After graduation, he intends on applying to medical school. Neither of Robert’s parents has attended college, and he has no siblings.

Sebastian

Sebastian is a senior majoring in Biological Sciences. He was born in Cali, Colombia, and moved to the United States when he was 5 years old. He received full scholarship offers from several selective institutions but, due to his immigration status, could not accept any of them and had to attend the local community college. Although he would later receive some of the same offers from the aforementioned selective institutions after earning a two-year degree, these schools were no longer offering to cover his tuition fully. However, the institution in the study offered him a full tuition scholarship, and so Sebastian chose to attend primarily for financial reasons. Neither of his parents has attended college; however, he has a younger sibling currently attending the local community college.

Sophia

Sophia is a senior in Psychology. Born in Cordoba, Argentina, she moved to the United States when she was 8 years old. After earning a two-year degree at the local community college, an experience somewhat complicated by her immigration status at the time, Sophia chose the
institution in the study because she had recently been married and felt compelled to stay close to home. Also, the graduate program she was interested in is offered at the institution in the study. Neither of Sophia’s parents has attended college, and she has no siblings.
CHAPTER FIVE

RESULTS

A qualitative case study approach was adopted for this study, which included rich descriptions of students’ experiences. This approach allowed meaningful connections between their responses and existing social cognitive and self-efficacy theory. Sixteen students participated in two separate, 45-60 minute interviews. In the first interview, students were asked to share positive and negative experiences before and during college. For the second interview, they were asked to reflect on these experiences discussed in the first interview, and consider the influence they had on their sense of self-efficacy and overall college experience. Both interview protocols were framed around social cognitive and self-efficacy theory, and are included in their entirety in Appendix B.

In this chapter, I present the general themes that emerged from the study; first generation student identity, differences between first generation students and continuing generation students, and the impact of the honors program. These serve to provide context for students’ experiences, perspectives and learning environments, particularly those relating directly to the core research questions. There were two primary research questions were at the foundation of this study. First, how has self-efficacy developed among high-achieving, first-generation college students? Second, how have these self-efficacy related beliefs influenced their academic achievement? Sub-questions spoke directly to understanding how self-efficacy develops in the context of three of the four sources from which Bandura (1977) contends we glean our sense of self-efficacy: mastery/lived experiences, vicarious/modeled experiences and social/verbal persuasion. Responses that speak directly to these research questions will be presented later in this chapter.
and, consistent with Yin’s (2014) “pattern matching” data analysis technique, will relate directly to existing social cognitive and self-efficacy theory.

First-Generation Student Identity

This study adopted Choy’s (2001) characterization of first-generation status, which includes any postsecondary student who comes from a family where neither parent/guardian has earned a bachelor’s degree. When asked to describe what it means generally and personally to be first-generation college students, a handful of notable themes emerged: parental influence, personal pride, future orientation, and adversity.

Parental Influence

Twelve students made specific mention of at least one parent in reflecting on the significance of being a first-generation college student. Although these perspectives differed somewhat in terms of content, they all alluded to pleasing at least one parent and/or taking advantage of opportunities their parents did not have.

For example, Andres explained being a first-generation college student nearing graduation represents “emancipation” from the expectations of his parents, particularly his mother, who have pushed him to do well in school. Christina likened her mother to an “iron-jawed angel” in terms of pushing her and her older siblings to pursue a college education. Ivanna described a college education as something her parents “have always told her to strive for,” jokingly saying they would kill her as well as her siblings “dead in our graves” if they did not graduate from college. Robert said that, despite the difficulties associated with being a first-generation student, his parents have always “pushed him” to succeed. Clyde explained how “excited” his parents are to see him “go to that next level in his life,” particularly since they emigrated from Cuba to the United States when he was 13-years-old to seek educational
opportunities that did not exist in his native country. Sophia provided a similar perspective; neither of her parents attended high school, and she explained the prospect of earning a college degree is as much for her as it is for her parents. Alexandra said that just the idea her father, grandmother and late mother are proud “means a lot” in terms of reflecting on her accomplishments as a first-generation student. However, David provided perhaps the most direct connection between first-generation status, earning a college degree and family influence in explaining,

    My dad is a really smart person as well as my mom. I was born and raised in Cuba and came when I was fifteen years old. The educational system and the way you choose a career in Cuba are completely different. Basically, the government chooses a career for you… based on your [exam] score, they assign you something...That is one of the main reasons that my parents are proud of me and I am proud of them as well. Being a first-generation college student means that I can complete the dreams that they were not able to do in Cuba at my age…. All the hopes of your family are on you so that’s pressure, a lot of pressure. But it’s a [source of] pride to go to college and get a degree. It is something that makes a change in your family.

The parental influence discussed by participants included various underlying concepts such as: fear of disappointing family, family members placing overt pressure on the student to succeed, and the opportunity to not only make the family proud, but also to improve the family’s future legacy. Although some of these may seem negative, the way in which students framed the influence of their parents was more as a motivating sense of responsibility. For example, Ivanna, Jimmy, Carolina and Sophia all explained family influences as making them feel as if they “have no choice” but to succeed.
Despite the success of these students in managing this responsibility, one has to consider the potentially negative consequences associated with failing to meet such a burden, something Andres referred to as a “double shame.” While a heightened sense of responsibility in meeting the approval and/or honoring the sacrifices of parents can be a powerful source of motivation and inspiration for first-generation college students, it can also increase what is at stake from a psychological standpoint should they falter. This will be discussed in further detail below.

**Personal Pride**

Thirteen participants expressed great pride in their first-generation status and the prospect of soon earning a college degree. Although some expressions of pride were connected with parents, family members, and even friends, others were strictly focused on the accomplishment at the individual level.

For example, Sebastian explained being a successful first-generation college student nearing graduation has validated aspects of his personality, including his “self-motivation,” willingness to work hard and overall perseverance. Kathi expressed considerable pride in the fact that much of her success was accomplished “by myself,” without the guidance of her parents, who could not offer much support with the technical aspects of college, such as application processes. In expressing her pride, Alexandra described earning a degree as confirming the adversity she overcame “had a purpose.” Ivanna described earning her college degree as a “milestone in her journey,” adding that seeing her parents’ “eyes sparkle” makes her feel like her parents think the sacrifices they have made for her have been “worth it.” Patty describes the prospect of earning a college degree as a first-generation college student as honoring her family’s “unspoken” call for her to succeed. In commenting on the label of being first-generation she adds, “I think it’s a good label to have. It shouldn’t be taken as a negative. It’s something to be
proud of.” Finally, David described being a first-generation student as a source of “internal pride,” and a part of his identity he regularly emphasized in personal statements.

The role personal pride played in motivating participants toward success was clear. Additionally, with the exception of one participant (Andres), first-generation status was framed positively, as a source of pride. From a self-efficacy standpoint, students like Petra and Kathi were apt to point out how being first-generation students had instilled a sense of self-determination, something that enhanced their sense of being able to succeed academically. This stands in stark contrast to the deficit-focused portrayals of first-generation college students highlighted in Chapter Two and, perhaps, speaks to the disconnect Rendon (1992) describes as precipitating institutions wittingly or unwittingly “inflicting pain” on these students by assuming deficiency.

Future Orientation

In reflecting on the prospect of what it means to be a first-generation college student nearing graduation, fourteen of the participants spoke about the future. These perspectives can be broken down into two categories. First, some participants framed degree attainment as something that would enhance the future of their families. Second, other participants described future benefits related directly to better opportunities for career advancement and/or financial security.

In terms of significance at the familial level, much of the meaning Jimmy placed in being a first-generation college student centered on serving as an example for his younger brother and mother, who is considering going to college in order to earn an accounting degree. Clyde described his first-generation experience as “creating a path” that will “completely change” his future, affording him the opportunity to support his family later as they have supported him. Carolina explained that much of her dedication to attending and striving to be successful in
college has stemmed from not wanting people “behind her” to “think twice” about being able to succeed.

In regards to career and financial advancement, Alexandra framed success for first-generation college students as a realization of the “American Dream.” Petra described that her family has experienced “lots of hardships,” and felt earning a degree would help her avoid similar circumstances later in life. Additionally, given her aspirations to attend graduate school, she described earning her degree as something that will “open up a lot more roads.” Ivanna explained that earning her degree is simply the next step in her journey to become a doctor. Sophia associated degree attainment as a first-generation college student with exposing her to “a better future, better chances, stuff like that.” Understanding her mother could not “take care of her and her siblings forever,” Christina framed degree attainment as a path toward being able to support herself and, eventually, her family financially. When explaining his motivation for working as hard to earn a college degree, Sebastian said,

I developed [a value for hard work] when I was like four years old, watching my parents struggle…financially, especially…The fact that the job market is so hard…it’s hard enough to find one with a degree, let alone with just a high school education. Seeing that struggle of trying to find a job, people living paycheck to paycheck…that’s something that motivates me. I wouldn’t want that for my kids, so I’m striving to reach that level where there’s financial stability. It’s sometimes one of the most important things.

Adversity

Students in the study commonly cited adversity in general as a major component of their college experience as first-generation college students, and how the experience of overcoming it had enhanced their sense of capability in continuing to achieve success. Although many
participants reported few negative experiences academically, discussed in greater detail later in this chapter, there were a number of instances where they insisted negative experiences had contributed to their success and, thus, were not negative at all. When asked what he attributed his collegiate success to, Jimmy responded, “A lot of failures… I think every failure isn’t a failure. I think it’s another step to being more successful. You can’t succeed unless you fail.” David, Clyde, Alexandra, Sophia and Carolina offered similar perspectives. These outlooks were particularly pronounced in situations where participants’ abilities were doubted or questioned by others. In line with self-efficacy theory, participants were confident in their ability to overcome adversity not only because of their previous successes, but also because of their previous experiences effectively managing and persevering through difficult experiences.

Immigrant Experience

One particularly unique source of adversity that presented itself in the study was the struggle associated with the immigrant experience in the United States. When I asked him what came to mind when he thought of first-generation college students, Andres provided the following response:

Immigrants, to be honest. That’s the first thing. I grew up in the Cuban community and in sort of the whole wider Hispanic culture. You grow up with this idea of first generation and the struggle to get education and whatnot, like Mexicans, Cubans, other Latin Americans… so that’s sort of what comes to mind. And part of the cultural thing is also having your parents push you, [where education] is something you must do or you will be ashamed of it. Which was part of my thing because my parents wanted me to get a good education, get a job, stereotypical things, become a lawyer, become a doctor. I was a slacker; I wasn’t a particularly academic student… so I had this weird double shame. I
was ashamed because I was basically a failure in that aspect of succeeding academically and economically, the whole get a job, get money thing. And I felt like… ashamed too because I felt like I was selling out by being ashamed of the previous thing.

For Ivanna, her family’s experience fleeing their native Colombia as political refugees became the basis for her family’s insistence on creating better opportunities for her through education. She recalled friends growing up being motivated to be the first in their families to graduate from college as a direct result of watching their parents “work two or three shifts to make sure we got an education.”

The common struggles associated with the immigrant experience were inextricably woven with those of first-generation college students for many respondents. This did not come as a surprise, given the sample of this study included a majority who identified as Hispanic as well as some of who were born and/or grew up in various countries in Latin America. David, Clyde, Carolina, Maria and Robert all provided similar characterizations in explaining how the challenges their families faced as immigrants connected with their respective journeys to be the first in their families to earn college degrees.

As incredibly motivating as the idea of honoring the sacrifices and struggles of parents can be, some students described it as a source of intense pressure that, at times, has been difficult to manage. Sophia explained that her family in Argentina often frames her as “the example for everyone else” and “the person everyone looks up to,” a characterization which has added even more anxiety to her current pursuit of a master’s degree in speech pathology. Petra, the only participant in the study to have a perfect 4.0 GPA, added,

On a personal level, to me, it means a lot in terms of doing something that my parents weren’t able to do. However, I also find that it means there’s a lot of pressure on me
sometimes. It doesn’t necessarily come from my parents, cause they don’t really pressure me into anything. It comes from me wanting to make sure I make them happy, and I make them proud…and also that I feel proud about myself. I always felt a lot of pressure to do well academically.

While the challenges highlighted in this section represent unique challenges related to the immigrant experience, participants also reported managing struggles common to traditional college students. For example, Alexandra, Kathi, and Christina all dealt with the death of parents during their time in college, events that threatened their success to varying degrees. Although there were undoubtedly some unique challenges faced by participants in the study, many of them also managed personal circumstances similar to their continuing-generation peers. However, as was described in a previous section, participants described an uncanny psychological ability to reframe these negative experiences in positive and even empowering ways.

**First-Generation vs. Continuing Generation**

A report published by the National Center for Education Statistics (1998) and other research findings (Pascarella et al., 2004; Terenzini et al., 1996), found that first-generation students lag behind their continuing-generation peers in terms of academic outcomes in college. However, none of the participants in this study attributed academic ability to differences between first-generation and continuing-generation students. In fact, some participants speculated their first-generation status might provide them with a distinct advantage relative to their continuing-generation peers. Sophia explains,

I don’t think one group is smarter than the other. I think [continuing-generation students] maybe have more abilities in the sense that they’re pushed more or forced in a way.

First-generation students, you don’t have to [go to college], or continue [to attend]… you
don’t have preceding examples [of people who have attended]. It’s not that you have to [go to college], you want to. You push yourself alone as opposed to somebody else pushing you. You know, if your parents have a degree, you’re going to have a degree, because that’s the normal thing to do.

Conchita provided a similar perspective,

No I don’t think [continuing-generation students have more academic ability], because I think it’s what the student does and wants to do. Being a first-generation student, I know how to look for solutions better. Cause nobody really knows what to do and I had to start from scratch, which helped me become better because I find solutions. I don’t just drown in my problems. Even with other things…like I do research and most of the things I don’t know…it’s a really good thing that I have that ability and I know how to look for [resources] and talk to people. That’s helped me.

Although the participants generally did not believe continuing-generation students to be superior academically, and even went as far as reframing their status as an advantage, almost all of them relented that coming from a family where at least one parent has earned a college degree provides cultural and financial advantages as they relate to achieving success at the collegiate level. Andres and others offered their perspectives with a measure of admitted envy. He explained,

The immediate gut reaction is sort of like classism, almost, because when I went to high school… a lot of my friends were these middle class kids whose parents were chemists and whatnot. I always felt like a bit jealous, I had a bit of envy, because I always felt like they both had a path laid out for them and they simultaneously were getting the support to do so. It felt like they had a sort of purpose in their lives…That’s the thing, I’ve always
felt like my life to a certain extent has been defined by the things I was given or not
given… so I’ve really always had this weird classism in my life where I was like, ‘Your
parents were chemists or politicians or ambassadors or whatever… and then you got this
education, not just school education, but political/moral education where you would
watch the news and your parents were engaged and would go to sports with you and
whatnot.’ It’s different; it’s different from the stuff I received.

Other students cited ways in which they felt having at least one parent who had earned a
college degree would have aided them in their own experience. Robert suggested that
continuing-generation students had more parental guidance in terms of navigating the college
application process. Sophia lamented that her family members were not aware of the demands
college life places on one’s time. For example, family members often insisted she delay working
on school assignments in favor of spending more time with them. The parents of continuing-
generation students, she contended, would “understand or push them or guide them.” Finally,
Alexandra provided an apt summary of the distinction between academic ability and cultural
advantage as it relates to first-generation and continuing-generation students,

Well, [I don’t see much of a difference in academic ability between first-generation and
continuing-generation students], I think we are all born with an ability to do whatever we
set our minds to. But it’s more about who has more resources. If your mom and dad went
to school, have connections and set the path for you, you have more resources to succeed
as opposed to someone like me. I wasn’t going to get a certificate, I didn’t know how to
do things, I didn't know what financial aid was, what admissions was, what majors were
available at a university. So in that way I feel like students that are continuing-generation
have more resources, are likely to succeed, as opposed to first-generation students who basically have to figure everything out for themselves.

From a self-efficacy standpoint, the participants in the study uniformly agreed that coming from a home where neither parent had earned a college degree held little relevance in determining one’s academic ability. Buoyed by the benefit of their own academic success over time, participants were able to psychologically distance themselves from background characteristics they agreed placed them at a disadvantage compared to their continuing-generation peers.

**The Honors Program**

In Hebert and McBee’s (2007) study (see Chapter Two), students enrolled in an honors program reported benefiting socially and intellectually from the experience. In my study, some participants aligned with this previous research finding, while others disagreed that enrollment in an honors program benefitted them socially and intellectually.

Eight participants characterized the honors program as contributing to their collegiate success. Alexandra helped establish an academic student organization within the honors program and, despite having some negative experiences during her time there, described herself as being “very involved.” Sebastian expressed that he enjoyed the various academic enrichment workshops offered by the program and even had the opportunity to study abroad in France. Ivanna found a positive social group within the program. Petra connected with one of her most important mentors, a faculty member, through the honors program. David took advantage of research opportunities offered to program participants, and has presented his work several times. Clyde described the honors program as having been “nothing but helpful” to him. Maria
described a “connection” with the program, particularly in terms of the service experiences she has had alongside other students.

However, not all of the perspectives participants shared about the honors program were as positive. Despite having had some beneficial experiences within the program, Alexandra described an ultra-competitive student culture, particularly among STEM majors in the program, which she described as “disgusting.” Andres took it further, saying he felt like the program administration was promoting a “toxic environment by telling these kids they’re so special.” Kathi explained that the program’s numerous service and engagement requirements made it very difficult for her to balance school and work commitments. Robert’s perspective was similarly resentful of these program requirements,

Yes, coming from where I come from I don’t like to be told what to do. Even if it’s a positive I want to have to choice to do it or not to do it. I don’t want to have to be told that I have to [attend workshops and service projects] this year in order to stay in [the honors program]. I had to attend a workshop about law last week and I wasn’t interested, I was only there for the points. I think that was disrespectful to the people that wanted to be there. I was definitely not interested because I’m a medical student and law is not something that interests me, but I had to be there because I don’t have the points. I have a demanding job; I’m taking 18 credits and haven’t had the time to come up with the [required participation] points.

Other students, while they did not describe it as an overtly negative experience, claimed the program ultimately only benefited them in the form of fringe benefits. For example, upon reflection, Robert and Christina claimed the only benefit of their participation in the program was that it superficially improved their medical school application. Also, they would be able to
take advantage of the program arrangement with the institution’s medical school to guarantee admission interviews for their students. However, in Christina’s case, since she eventually decided not to pursue medical school and these benefits were no longer applicable, she admitted to questioning why she was in the honors program at all. Others identified the program’s promise of priority registration as a similarly singular and functional benefit.

Certainly, for some students, the honors program played an important role in enhancing their college experience by connecting them with positive and influential faculty members, academic engagement experiences and peer networks. All of these lend themselves to a greater sense of self-efficacy, and suggest the program’s importance in this regard. Although several students mentioned above described negative experiences within the program, it should be noted these experiences were not necessarily indicative of participants’ overall experience (Alexandra) or were the product of indifference about and/or disengagement from the program (Christina, Robert). Certainly these are not ideal outcomes for the program itself. However, participants’ descriptions of their negative experiences did not align with the three sources of self-efficacy information the study focused on and, thus, are unlikely to have made an appreciable difference on their sense of capability.

**Self-Efficacy**

Self-efficacy, a key component of Bandura’s (1977) social cognitive theory, is generally defined as “one’s perceived capabilities for learning or performing actions at designated levels” (p. 220) (Schunk & Mullen, 2012). This study adopted self-efficacy as a theoretical lens, focusing primarily on three of the four sources of self-efficacy information proposed in the original theory. These include the following: 1) mastery/lived experiences, 2) vicariousmodeled experiences and 3) social/verbal persuasion. In this section, findings from the current study are
presented that correspond with each of these theoretical domains. After that, in preparation for the discussion to come in the next chapter, I will present findings that speak directly to the study’s primary research questions. These include the following: 1) development of self-efficacy and 2) influence of self-efficacy on achievement.

**Mastery/Lived Experiences**

According to the theory, mastery, or lived, experiences are the most influential of all of the sources of self-efficacy information (Bandura, 1977). This stems from the fact that lived experience is rooted at the individual level rather than the other sources of self-efficacy information, which are largely dependent upon social comparison (Schunk & Pajares, 2009).

In the current study, participants were asked to provide specific examples of instances where they succeeded or struggled in college, as well as reflect on why this had happened. Additionally, they were asked to identify what they believed to be their most and least proficient academic subject, along with a rationale for each selection.

Notable quotes from individual participants are presented. Generally speaking, participants’ lived experiences were overwhelmingly positive. In fact, some participants had a difficult time identifying negative experiences at all. Even when they did, the influence these experiences had on them was often reframed as a learning opportunity. In line with self-efficacy theory, the mastery/lived experiences described by participants consistently enhanced their overall sense of academic confidence and ability and, for some, were described as critical components of their overall college experience.

**Alexandra.** Her research experiences over two consecutive summers at both Yale and Tufts were described as “the best moments that I ever had in college.” Not only did Alexandra report growing more confident academically through these experiences, but also socially.
Alexandra has since served as a recruiter for the Yale research program she participated in, and has taken great pride in seeing fellow students take advantage of the opportunity. She explained,

I’ve been so happy to see the amount of people that have applied to that program from here. I’m also a peer advisor for the pre-health office and they have the poster of my program everywhere and they tell the students to apply to the program and I’ve been able to go and speak about my experiences. Even hearing comments from the advisors saying, ‘People are applying to your program.’ To me that’s success. That means I’ve done something to improve the opportunities for other people.

Andres. In reflecting on his academic experience within the religious studies department, Andres framed it as an experience defined by self-exploration and personal growth. This self-critical journey has been largely inspired by the encouragement of professors within the department, most notably Dr. Vincent, who also suggested Andres participate in a study abroad opportunity in India and apply for a scholarship which he eventually received. Andres explained,

It’s been a transformative experience by virtue of showing me who I am as a person as well as things I need to change. To give you an example…with Dr. Vincent, we’d be in class. After class in his office hours, I’d be talking to him about a religious thing, and he’d sort of say, ‘No, but you’re sort of imposing what you are as a person onto what you’re doing.’ So he sort of held up a mirror to me and said, ‘This is what you want out of this…but is this what you really want?’ So, for example, if he saw me reading about something spiritual that was very nebulous or foofy, he would say, ‘[That reading] is paraphrasing something you’re searching for, but it’s not really there.’ I think that he sort of identified that I was using [religious studies] as an outlet, and precisely because I was using it as an outlet, I was sort of able to turn it against me, responsibly. I can be a
responsible scholar in that sort of way…because I’m taking myself out of the equation. I think that’s part of the maturity thing and getting better at something… like being [in religious studies] has helped me get over my hang-ups precisely because it showed me what my hang-ups are.

**Carolina.** In describing the way earning good grades has made her feel, Carolina described a similar pattern as others in the study. Specifically, she saw “getting an A” as indicative of her “doing it right.” Because lower grades have often “put her down,” particularly when she was in grade school both in Venezuela and the United States, Carolina described the feelings associated with earning an A as “special.”

She also identified being elected the president of the institution’s pre-veterinary club by her peers as a successful collegiate experience. This was a particularly influential experience for Carolina because she had been afraid she would not be elected due to her accent. In describing the internal response to her election Carolina said, “That made me feel like people believed in me, even though some days I don’t believe in myself. They believed that I can make it and I can be something better and that inspires me. That motivates me.”

**Christina.** In a biology course she took freshman year, Christina recalled being able to count the number of fellow African-Americans in the class “on one hand.” The professor, who took an interest in her, regularly called on her to answer questions posed in class. Christina explained that she often responded correctly to these questions, something that made her feel especially proud and capable.

Despite characterizing her classroom experiences as positive overall, Christina also described them as accompanied by an undercurrent of what she perceived as racial bias, mostly from peers and other professors. She clarified, “The students are like, ‘Why are you so smart?’
And if they knew what my siblings do [for work] they’re like, ‘Oh, how did you guys make it so far?’ I would say, ’We worked hard.’”

These experiences in college reminded Christina of similar ones at her predominantly white high school. Christina recalled answering questions correctly in classes only to see some of her teachers “look at me [with surprise] like, ‘Oh, she’s one of the few that dropped out of the sky.’” Therefore, although she described her time in college as “smooth,” her overall experience has not been as patently successful as many of the other participants in the study.

**Clyde.** Having participated in the same summer research program at Yale as Alexandra, Clyde similarly characterized his experience as positive. Simply being selected from an applicant pool of more than 2,000 students was significant for him, indicating that he was “doing the right things.” However, when he reflected on the influence his involvement had on his college experience, Clyde went further,

I came [to the United States] and didn’t know a single word of English. I would have never thought about going to an Ivy League school. When you think of someone coming from a country that doesn’t have these opportunities…I never thought about going to a place like Yale. To me, it showed me that it doesn’t matter where you come from…it depends on how bad you want it and what you’re willing to do. When I participated in the program, it gave me the confidence to come back and believe in myself and it didn’t matter if I was going to [the institution in the study]. I had students that participated who went to Harvard but, at the end of the day, we were equal in terms of how smart we were and how much dedication we had for the field. That [experience] made me think of myself from a different point of view.
**Conchita.** For a “few years,” Conchita served as a teaching assistant for some courses within the chemistry department. She described the experience as “reassuring,” mostly because she took it as validation of her academic abilities in explaining, “If the professor gave me the opportunity to teach other students, then that meant I actually knew the material and was capable of doing that task.” As a teaching assistant, she was exposed to training on “how to teach,” something she felt will be valuable for her as she begins her Ph.D. in biology in August.

**David.** The honors program connected David with research opportunities that he “will remember for the rest of my life.” The experience exposed him to the process of conducting research and the skills associated with said process; he wrote an undergraduate thesis and gained presentation experience by attending undergraduate research conferences. However, David placed considerable emphasis on the personal and professional relationships he was able to build with professors as a result of his experience, and how these relationships motivated him to continue working hard even in the face of difficulties early on. He described the approach of one professor,

He told me, ‘Listen you’re here to learn and I don’t want you to come to my office [just] when you have data to present. I want you to come to my office when you have time; I want you to come to my office when you have a question.’ That’s something no other professor does.

David was one of the few students in the study who reported ever having earned an F in a college-level course. He said he could have dropped the course but, as a less experienced student, was unaware such a policy existed. Although his final grade and lack of knowledge about the policy made him “feel like crap,” David qualified that by saying it was ultimately a learning
experience in that it taught him the value of communicating and seeking help from that point forward.

**Ivanna.** Last fall semester, Ivanna and twelve other students in the honors program received invitation to the campus president’s house for dinner. The purpose of the dinner was to discuss various matters related to the campus climate. Ivanna described it as “an amazing experience,” and was “honored” by the fact she was selected to participate.

When I asked her what significance the experience held for her, Ivanna highlighted a familiar theme of validation and motivation:

I remember looking back at that day and feeling really proud of what I had done. The significance is that I want to continue doing what I’m doing to get [another] outcome like that. It’s very rewarding when people notice what you’ve done…when you’ve impacted so many people the [campus president] knows what you’re doing…it’s great.

In terms of negative experiences, Ivanna had a fairly influential one her freshman year in the form of an algebra course she took. Despite reporting she “had never studied so hard” and took advantage of tutorial services on campus Ivanna earned a D, a failing grade. She recalled being very upset and discouraged, going so far as to ask herself, “What am I doing here [in college]?” Although she would eventually retake the course with the same professor, she did not do so for over a year and earned a C-plus. Other math courses she enrolled in later on were met with similar self-doubt, although she passed them. As Ivanna said, “Math has always been a discouragement.”

**Jimmy.** The experience of completing a dual enrollment program located at the institution in the study was a positive experience for Jimmy. Like some other participants, Jimmy
lamented a student culture in the program that was overly competitive and “emotionally discouraging.” However, he ultimately described the program’s influence positively,

In the [dual enrollment program], I would go to some of the events at [the institution in the study], and would feel super cool. There were college students around me. I would take the dual enrollment courses and do well…that felt encouraging. It was like, ‘OK, college is doable. It’s not this scary thing…it’s manageable, I can do this.’

**Kathi.** Kathi was another student who commonly presented their academic record as evidence of capability. She provided her record as a rationale for everything: as an explanation for why she belonged in the honors program, why a professor she took an online course with should not have judged her academic capability prematurely, and why she thinks she will do well in law school.

Much of Kathi’s characterization of academic experiences as either successful or not, was rooted in whether she was able to “get through them.” In the case of the aforementioned online course, she was able to earn an A-minus and, thus, considered it successful. However, quitting her resident adviser job and dropping a difficult economics course her first semester were both experiences she considered to be unsuccessful.

**Maria.** Maria was yet another example of a student who characterized her strong academic record, in her case a 3.74 GPA, as indicative of a successful college experience.

However, perhaps to a greater extent than any other participant in the study, Maria attributed her positive overall experience to her extracurricular involvement. She was actively engaged with the institution’s student leadership center and served as a resident adviser within one of the institution’s living-learning communities. Although these experiences did not directly influence Maria’s academic achievement, she explained that the formal recognition she received
as a result of her participation has instilled an increasing “sense of belonging” at an institution
where she initially described herself as being reclusive.

**Patty.** Patty recently secured a research position in psychology, and described the
experience as positive for her career. She noted the fact that many of her friends were about to
graduate and had not yet conducted research, which she claimed was an important experience to
cultivate as a psychology major. However, despite “appreciating the experience,” Patty had
already decided not to pursue a PhD in psychology as she originally intended, and so the long-
term value of the experience is something she described as being unclear.

Patty had recently earned straight A’s for the first time in her college career. When asked
what that meant for her going forward, her response hinted at a confidence about being able to
repeat the accomplishment. Patty said, “Knowing that I did it once, I can probably do it again.”

**Petra.** A professor named Dr. Donaldson invited Petra to an archaeological dig in Israel,
and has since attended others. As a Religious Studies and Anthropology major with a career
interest in archaeology, Petra described these experiences as “incredible.” When asked about the
meaning of these experiences, Petra explained,

Well it’s still impacting me. It was difficult at first because you’re barely getting sleep
and doing manual labor in essence. But being…you’re sleep deprived and not in the best
conditions but still having to think critically and analyze materials and all that kind of
stuff. That impacted me in that, ‘OK yes I can do archaeology, I can do this’ and then
transfer class material into the classroom and classroom material into the field. I mean I
still think about Israel. The archaeological field isn’t easy in terms of getting a job…so
the experience just pushed me to want it even more. You know, I want to eventually
direct digs and stuff…so just having that positive experience impacted me to keep pushing and keep striving.

In commenting specifically on how her overall college success might have been different without having gone on the digs, she reemphasized the importance of the experiences on her proficiency in the classroom,

Yeah [I would be in a different place right now]. Not only when it’s like talking to professors or people in the field…when I’m actually studying or taking a class I’m able to situate myself better in the course content and visualize things better than students in the class who haven’t gone on digs before. It helps to integrate everything.

Robert. When reflecting on his college experience, Robert could not come up with many examples of instances he found to be particularly successful. He attributed this mostly to a busy life outside of school, which included “a demanding job.” He also expressed a general indifference toward the idea of being involved at school, particularly when it is required, as has been the case with the honors program.

However, Robert cited a pre-collegiate experience as being positive. Soon after he arrived to the United States from Cuba, one of his high school teachers suggested he attend an academically rigorous dual enrollment program at the local community college. Dismissing any potential issues his lack of familiarity with the English language might have presented, she told him, “You’re going to get ahead of the game. In order for you to learn the language you need to be somewhere where no one speaks Spanish and you’re going to be forced into the language.”

Robert ultimately described his experience in the program as “incredible,” and identified it as a reason for his overall success in college.
Sebastian. Having achieved Dean’s List recognition every semester thus far in college, Sebastian described the accomplishment as “one of those academic prestigious things that can show I’ve been putting forth the effort…sort of like a rubric for judging my success.” I asked him if he thought things might have been different had he struggled early on in college.

Sebastian responded,

Yeah definitely [things would have been different]. The struggle would have made me feel less confident than I am in myself and my study habits and work ethic. It would have caused me to question myself, whether or not I’m made for this to a certain degree. Some failure is required for you to grow as a person but too much can crush you.

Rather than ever feeling crushed, Sebastian explained that the high grades he received in college have reinforced his abilities as a student and increasingly built up his confidence.

Sophia. At the beginning of our second interview, Sophia told me that she had recently been invited for an admissions interview for a master’s program in speech language pathology at the institution in the study. I asked her how she thought she would do in a program like that. She quickly responded, “I think I’ll do really good.” Her rationale drew from a series of academic successes during her undergraduate experience,

I’ve done the certificate program here. So I’ve taken twenty-five credits that are kind of like [the classes in the master’s program]. I already know the lingo and kind of know what they expect from you. I’ve actually liked those classes more than my undergraduate classes. I feel they are more challenging, and more at my level. I manage them better than my undergraduate classes. They make you think…I’ve gotten all A’s and one B-plus in those courses.
As a member of the honors program, Sophia also served as vice president for one of its more popular honor societies. As part of her involvement with the organization, she went on “a lot of trips” and participated in community service. However, she cites the social group she established in the organization as an important catalyst for her success. Sophia explained further,

I was able to maintain a good GPA and [be successful] because I had a lot of new people, mentors I guess, to look up to, that would push me and help me and understand me as opposed to my parents who didn’t. So it’s been great…If I wouldn’t have been in the [honors program] or have gotten to know all of these people, I wouldn’t have ever had these same opportunities and things that I have and I wouldn’t know so much about my major, what to do in the future or have goals set the way I want.

Participants in the study identified substantially more positive mastery/lived experiences than negative ones. These positive experiences translated into a greater sense of capability among participants, particularly from an academic standpoint, which aligns with self-efficacy theory. Although lacking the consistently positive influence of mastery/lived experiences described in the study, other sources of self-efficacy information also played a role in molding participants’ sense of capability.

**Vicarious/Modeled Experiences**

Vicarious, or modeled, experiences are another source of self-efficacy information, although not as influential as mastery/lived experiences (Bandura, 1977). Schunk and Pajares (2009) clarify that, although the observed experiences of all peers have the potential to influence behavior, these observations are most influential when individuals view said peers as similar to them. A quote by Gladwell (2013), which was referenced in Chapter Two, helps to illustrate this
dynamic, “We form our impressions not globally, by placing ourselves in the broadest possible context, but locally—by comparing ourselves to people in the same boat as ourselves” (p. 78).

In the current study, each participant was asked to identify peers who they considered to be similar to them, particularly in terms of academic ability. Subsequent interview questions focused on asking participants to consider how they responded to the academic successes and struggles of peers in general. Additionally, they were asked to consider how observing one of their similar peers struggle in a course might influence their own sense of academic ability.

The majority of participants placed little influence on the academic experiences of peers in defining their own sense of ability. For these students, this perspective remained constant even when it involved specific peers who the participants had identified as similar to themselves. For example, although Petra said she might “question whether she wanted to take a class” a similar peer had struggled in, she explained that her assessment of the course would eventually be rooted in experience, such as reviewing the syllabus or observing the professor during the first week of class. Alexandra provided another typical response, “No, I don’t think it matters. Just because [a similar peer] struggled…we’re different people, and I may have a different way of resolving that outcome.” Robert added,

The thing is you know yourself and you know how able you are to do something, what your skills are…and I also know my friends so the fact that they struggle doesn’t mean that I’m going to struggle [with the class]. I can take their advice to not take this class, not take this professor, or take the class in the summer, but I don’t think because they struggled that I will struggle. Maybe they didn’t put enough time into it.

However, several of the participants placed at least some importance on the vicarious-modeled experiences of peers, both generally and specifically. This contradiction is not
completely surprising, as researchers have suggested the influence these kinds of indirect experiences have on the individual and their behavior may be uneven and difficult to predict (Bandura, 1977; Schunk & Mullen, 2012; Schunk & Pajares, 2009).

In describing how she would respond to a similar peer having struggled in a course, Christina explained,

Yeah that’s happened to me. It was with one of my peers. I heard too many horror stories, and I’m the type of person that feeds off of energy. If I hear negative things, I’m going to stay as far away as possible. That’s why I took chemistry so late, I took it as a junior when you’re supposed to take it as a freshman. They give you a plan of study where you’re supposed to take certain things. It sounded like a plan of failure for me, so I went with what I felt comfortable with. I had friends who failed classes and felt like I had to stay away.

While the experience that Christina explained illustrated a negative influence on the perception of the course, other participants explained scenarios of peer influence that was positive. Hypothetical scenarios aside, Sebastian recalled the influence seeing two friends get accepted into medical and graduate school had on his own sense of ability,

Jonathan getting into medical school…that was definitely a positive thing [for me]. I always thought, ‘Well if he can do it, I definitely can do it.’ He scored above average on the old [version of the] MCAT and I felt like if he could do it, I could definitely do it.

Same thing with Antonio when he got into graduate school… Their success has definitely built up my confidence.

Participants’ descriptions of vicarious/modeled experiences in the study aligned with self-efficacy theory. Some participants had been influenced by peers’ successes and failures (or said
they would be), while others dismissed the notion of relying on peers to inform their own sense of capability. This inconsistency was to be expected, based on the literature.

Social/Verbal Persuasion

Social/verbal persuasion is, theoretically speaking, no more or less influential than vicarious-modeled experience since both are rooted in social comparison as opposed to lived individual experiences (Bandura, 1977; Pajares, 2001).

However, in the current study, this source of self-efficacy information seemed to have a greater and more consistent influence on participants’ experiences and behavior during and even prior to college. Still, as Wang (2012) found, these messages were often “competing and contradictory” such that it was difficult to precisely determine their influence beyond students’ recollections and speculations, something this section highlights.

Alexandra. The nature of the verbal messages Alexandra received, particularly as a child and teenager, can be clearly split between those she heard at home and those she heard at school. Growing up, while an uncle at home was telling her “all the time” that she “was a worthless piece of shit that wouldn’t amount to anything,” Alexandra described finding a “safe haven” at school in terms of the verbal encouragement she received,

I turned the switch on in school. In school nothing fazed me, I loved going to school. I hated going home, but I loved going to school because I escaped all of that. I took advantage that it was the one place where I could do well. In school people were telling me, ‘Good job, Alexandra.’ I got the support and love I didn’t get in my upbringing in school. If I got an A my teacher was like, ‘Good.’ I remember my Spanish teacher in fifth grade rewarding me with gummy bears and saying, ‘Good job.’ I remember doing
well in class so I could get the red gummy bears. That positive conditioning, I acquired it in school.

In college Alexandra recalled verbal encouragement from Dr. Chapman, a professor in the biology department. She described him telling her she had “a lot of potential,” “should apply to Ivy League colleges,” and “was going to be really successful.” Alexandra said Dr. Chapman’s words of encouragement made her feel like she “could do it.” She explained further,

It’s funny; I always seek the approval of people who believe in me because all I ever did in [Dr. Chapman’s] lab was prove to him that I was worthy of being in his lab. So I did everything possible to succeed. I even went to a conference at Harvard so he could be proud that his student went to Harvard. I did everything possible to keep that support that I kept getting from my mentor. I seek out those mentorships. I guess cause I didn’t have that growing up; I seek out a lot of love…social relationships…because I lacked them growing up. He’s a positive person in my life.

Andres. Although Andres claimed to have received a considerable amount of encouragement growing up, particularly when it came to school, he considered many of these verbal messages to be “functionally discouraging.” Although his parents were largely “hands-off” when it came to most everyday school matters, their unspoken expectations were that Andres attend an Ivy League school in order to avoid “a meaningless life.” Mostly viewing himself as a “slacker” in school at the time, Andres recalled experiencing feelings of shame in the face of his parents’ high expectations. Matters only got worse when, after he graduated from high school, many of his friends ended up attending selective institutions. The result has been that much of Andres’ college experience has been focused on reconciling external messages with his own aspirations. He explained,
So I have to individualize myself, make myself my own person… and I specifically can’t do that if I use other people’s judgments on me. If I do, that means I’m basically worthless from the beginning. It’s all or nothing if you listen to other people…you either reach this level or you are nothing. And that’s devastating. You can’t do that or it’s going to hurt you. Emotionally… it hurts you emotionally and that ends up hurting you in real life.

**Carolina.** Growing up in Venezuela, Carolina largely described an encouraging environment when it came to school. Her father regularly expressed his pride in her. She recalled receiving “diplomas” and other recognition from teachers. When she moved to the United States, Carolina mentioned only one negative experience. She explained that the director of the ESOL program at her high school, focusing on her language barrier, claimed she would fail the reading portion of the statewide-standardized test. Carolina described her response,

> I was [thinking], ‘I’m going to prove you wrong and that I can pass it the first time.’ And I did it. [The director of the ESOL program] was like, ‘Wow. You are the first one in the school who actually passed it the first time coming from another country and taking it just 2-3 months later.’

In college, Carolina explained she generally felt encouraged by her professors, specifically naming a few who “motivated” her to continue doing well academically. However, as was the case with several other participants in the study majoring in STEM fields, she described instances where the difficulty associated with being admitted to medical school was framed discouragingly by professors. Carolina recalled one such professor who, on the first day of class, asked students to raise their hands if they were interested in attending medical school. He then announced that half of those who raised their hands would not be going to medical
school. Carolina described the professor’s method as “discouraging” and “sad,” and speculated that it could convince students to “try something else” as a career, thus diverting them from their primary interest.

**Christina.** Christina recalled receiving academics-related encouragement growing up, mostly from her family. Older siblings who had graduated from college along with her mother constantly pushed her to maintain high academic standards in school, and praised her “when credit was due.” At her high school, some teachers were so encouraging that Christina has continued to keep in touch with them “to this day.”

However, particularly in school, Christina recalled that the verbal messages she received growing up were not always as uniformly positive. For example, a college adviser at her high school questioned whether or not Christina should choose biology as a major. “I felt like he doubted me,” she recalled. The result of these experiences has been that Christina has refused to support alumni events.

In college, Christina highlighted one discouraging message she felt prompted her to consider other less personally satisfying career options. She explained,

One discouraging message was my sophomore year. I was talking to an advisor and they were like, ‘Are you sure medical school is your route?’ At the time my GPA was like a 3.6 and he was like, ‘You’re not competitive enough.’ And that’s what really deterred me from medical school and made me feel like I wasn’t competent enough. That’s why I looked into podiatry cause I’m like, ‘Oh my gosh, I don’t have the grades for med school.’ I think maybe if I hadn’t run into that adviser I’d still be pre-med and be prepping for med school.
Clyde. Upon immigrating to the United States at the age of thirteen, Clyde described being regularly encouraged by his teachers as a result of his willingness to “learn and take advantage of opportunities.” He explained that their encouragement motivated him to “do better” in school.

Clyde attributed a decline in encouragement after high school to the “structure of college.” Although he was discouraged academically, he opined there were fewer instances of encouragement in college, mostly because of demanding professor schedules limiting the opportunities for establishing meaningful connections with students. However, despite that, Clyde continued to be exposed to encouragement as it related to his capacity for academic achievement. He described one notable example,

When I participated in the second [research] program at Yale, my cousin who is a [Physician’s Assistant] took me to dinner to celebrate. He said when my dad’s uncle asked him for the money to be able to bring us to the United States, that the only reason he gave my uncle some money was because of me. He knew that if I could come at an early age, I could have a future. That made me realize I’m getting all these opportunities. He gave so much of his money so that I can have a better future. In a way that motivated me even more to do better. He was very happy for me and supportive.

Conchita. One of the questions I posed to students centered on how they would respond if someone told them they could not achieve something academically. Although Conchita’s reply generally reflected confidence in her own academic abilities in such a scenario, it also highlighted the potential for verbal messages to negatively influence individual thought processes and subsequent behavior. She explained,
It makes me feel inferior if someone tells me I can’t do something. I guess I would doubt it for a second and be like, ‘Can I not do this?’ I do that all the time to myself. It can be encouraging as well because I take it as a challenge. If it was said to any other person, it would mean something different depending on their personality and character.

**David.** Perhaps more than any other participant, David emphasized the value of verbal encouragement in supporting his academic success prior to and during college. He explained that encouragement during college was particularly important and influential, since “the difficulty of the classes is harder, the process gets harder, requires more commitment, more work, more stress.” David explained further, “It doesn’t matter how well you’re doing academically…it is good when people put a hand on your shoulder and tell you, ‘You’re doing great; keep up the hard work.’ That feedback…it makes you feel good about yourself.”

David provided an example which serves to reinforce his point. In a recommendation letter supporting David’s application to participate in a study abroad program in Europe, one of his professors at the local community college described him as a “shining light,” predicting David would “enrich the program both as a student and person.” David cited the professor’s words as the most encouraging he had received and described how the message influenced him, I felt proud of myself. But at the same time, I felt humbled, I felt happy, I felt secure, I felt confident… that really gave me a boost in saying, ‘You are on the right track. Keep going, you can do great things with your life.’

**Ivanna.** Despite a pre-collegiate experience filled with examples of verbal encouragement from family and teachers, Ivanna explained the college environment was largely devoid of such encouragement and even joked that her and classmates sometimes likened it to Darwin’s theory of “natural selection.” Ivanna provided an illustrative example,
My first semester, in chemistry, my professor said ‘Look to your left and look to your right. One of your classmates won’t be here at the end of the semester.’ That seemed discouraging because they were like, ‘Well, one of you three is going to fail.’

Despite her acknowledgment of this competitive environment, Ivanna did not appear to think less of her academic ability in general. She attributed this to her ability, at least thus far, to avoid being academically “weeded out” like some of her peers had. Despite her confidence, when she reflected on the experience in the chemistry class, and how it influenced her sense of ability, Ivanna explained,

I kind of got scared just because I feel like…I felt like I was going to be that one that dropped or failed especially because, in high school, I didn’t take chemistry very serious and my professor didn’t either…so I didn’t have a good background. I was going into college chemistry and the professor was telling us this course is very difficult, you’re going to die, so I thought I was going to be that student that failed for sure. So I think most of [my chemistry classes] I had that mentality that I’m not going to be able to pass…looking back at it now, I think I should have tried a lot harder and not had such a negative attitude and I think I would have done so much better.

**Jimmy.** In high school, Jimmy recalled peers “finding any excuse to think I was smart.” One of these peers went so far as to say Jimmy “had a smart face.” Although teachers were also generally supportive, Jimmy described a time when a French teacher told him “he shouldn’t be in this class” and expressed doubts about his ability to pass the class. Jimmy responded by arranging to be switch to another teacher’s class and, despite doing well, said he “never took French again.”
**Kathi.** A product of homeschooling, Kathi recalled teachers, during regular academic evaluation sessions, praising her ability to manage her time at such a young age. The result, according to Kathi, was that she developed a sense of independence in terms of being able to academically achieve at a high level.

Although Kathi described herself as being generally immune to the negative assessments of others, she relented feeling more susceptible to them following the death of her father, when she felt like professors and peers doubted her ability to persevere academically while also managing a personal tragedy. Kathi described how the discouragement influenced her, “It’s a different mental space. It puts you in a bad place already. I was already self-conscious when it comes to academics. I’m a high achiever, so if I don’t meet that I beat myself up.”

**Maria.** When reflecting on the verbal messages she received, Maria indicated that she felt being encouraged regularly inspired much of her academic success. Some of the more profound examples came from her family, most notably her mother, “My mom always said out of her three kids that I was her hope. She always believed that I was a constant and I would always succeed in her vision.”

Although she admitted her mother’s words added some pressure around her succeeding in college, Maria ultimately considered them to be encouraging and motivating. In college, Maria described how valuable it was to have received formal recognition (i.e. awards) from mentors in the student leadership center and honors program. As the awards “piled up,” Maria recalled feeling increasingly “accomplished,” “satisfied” and convinced she had done “the right thing” in school.

**Patty.** In dealing with the struggle associated with meeting the expectations of others, particularly family, Patty reported feeling pressure and a sense of self-doubt similar to other
students in the study. Although her family was very encouraging related to Patty’s progress in school, she described internalizing these verbal messages in such a way that was counterintuitive.

In line with self-efficacy theory, Patty’s feelings stemmed from doubting her academic abilities. During our interviews, she often expressed feeling like her peers were “brighter and more dedicated” than she was, particularly those in high school as well as in the honors program.

Petra. Also homeschooled prior to college, Petra had mostly neutral things to say about verbal encouragement she received other than to say her family had always been “supportive.” Two exceptions were a grandmother who questioned Petra’s decision to pursue an education instead of “growing up, getting married and having kids” as well as an aunt who, in bragging about the academic accomplishments of Petra’s cousin, made her feel less smart.

In college, Petra described her relationship with one professor, Dr. Martinez, as having “meant everything” in terms of her college experience. Not only did Dr. Martinez connect Petra with many of the academic experiences she described as influential, but also offered support in the form of verbal encouragement,

She says, ‘You’re going to be such a good scholar one day.’ You know saying things to other professors like, ‘You know, [Petra] is a scholar and a friend.’ She wants me to go to an Ivy League school, like she wants me to go to Harvard. I’m like, ‘But they don’t have what I want at Harvard in terms of a program.’ And that’s if I get accepted! I still don’t see myself getting accepted. [laughs] But she’s like, ‘Yes you could, trust me.’ So yeah, she’s always really encouraging. I can talk to her about anything.

Sebastian. A self-professed hard worker and dedicated student, Sebastian claimed to have enjoyed “lots” of encouragement related to school when he was growing up. Not only did he receive verbal encouragement from his family, a common theme among participants in the
study, but from grade school teachers as well. He identified four teachers—Mr. Gholston, Mr. Underwood, Mr. Han, and Ms. Darling—as particularly influential. Sebastian was able to specifically identify what each of the teachers had said to him that was encouraging, including themes of leaving the area. In addition, he also detailed their influence on his success, Sebastian explained,

Mr. Gholston was like, ‘You are super smart; you have to go to college.’ Mr. Underwood was like, ‘You’re smart enough; get out of Florida. Go study somewhere else with a different culture so you can learn something. Just send your application, you’ll get in.’… Mr. Han always said he admired me cause of how relaxed I was in class and stuff, and my performance on his exams… Ms. Darling used to tell me, ‘Don't worry, you’re going to be somebody in life.’… They were role models. At the time, I didn’t see it as them being role models…I almost felt like it was my responsibility to not let them down at the end… maybe they were conscious of it, I was unconscious at the time of what they were doing…their praises definitely pushed me forward and motivated me.

In college, albeit with fewer accompanying details, Sebastian recalled having been regularly encouraged, mostly by his professors. Similar to other participants in the study, he framed encouragement as something that prevented him from “second guessing” himself and validated his approaches and choices in school. As Sebastian put it, “All of that [encouragement] lets me know that not only am I doing a good job, but need to continue the work, that effort, that I’m putting forth.”

**Sophia.** Growing up, Sophia’s peers made her feel increasingly as if she did not belong and was “different” because of her then-illegal immigration status. As matters worsened, she uncharacteristically “did not want to go to class” and started thinking school was “pointless.”
Although she eventually overcame these feelings of isolation, her immigration status was something she described as a “dark cloud” until it was resolved through her recent marriage.

Sophia’s marriage paved the way for her to enroll at the local community college, an opportunity that had previously been denied to her. She recalled the guidance of a college advisor and mentor at her high school that not only encouraged her to go to college, but also applied for several scholarships on Sophia’s behalf without her knowledge. Sophia reflected on the influence of her advisor and mentor,

It was kind of like, ‘There’s people other than my parents who believe in me.’ It was kind of like that, that it’s not just my parents. Other people saw something in me…that I’m going to go far in life. Of course my parents thought so, but for somebody else it was a big deal.

Conclusion

In order to contextualize the findings in the current study, it was important to begin with the presentation of themes regarding how participants viewed themselves as first-generation college students. Additionally, presenting themes related to the quality of participants’ respective experiences within the honors program served a similar purpose.

Findings aligned considerably with the core tenets of self-efficacy theory. This was particularly true for mastery/lived experiences, the source of self-efficacy information most likely to influence individual thought processes and behavior. However, albeit with less consistency, vicarious/modeled experiences and verbal/social persuasion also played at least some role in terms of influencing participants’ self-assessments of capability as well as their subsequent behavior. The next chapter will critically discuss and expand upon the themes and findings that were presented in this chapter.
CHAPTER SIX

DISCUSSION AND IMPLICATIONS

This study examined the development and influence of self-efficacy among high-achieving, first-generation college students, specifically as it related to their academic achievement. This chapter begins with a brief summary of the study. Next, I draw connections between the findings in the study and existing literature on first-generation college students and self-efficacy theory. This analysis includes references to the interpretive framework presented in Chapter One. After that, I highlight implications and propose practical recommendations. Finally, I offer limitations of the study as well as opportunities for continued research.

Summary of Study

A clear empirical connection has been established between self-efficacy and retention-themed outcomes, such as the academic achievement and adjustment of college students (Bong, 2001; Chemers, Hu & Garcia, 2001; Multon et al., 1991; Pajares, 1996; Vuong, Brown-Welty & Tracz (2010); Zajacova, Lynch, & Espenshade, 2005; Zimmerman, 2000). However, few studies have explored this relationship specifically among first-generation college students and other underrepresented student populations (Griffin, 2006; Ramos-Sanchez & Nichols, 2007; Solberg, O’Brien, Villareal, Kennel & Davis, 1993; Torres & Solberg, 2001). Additionally, studies on first-generation college students have often adopted quantitative methodologies and highlighted deficient academic and social outcomes, particularly in relation to their continuing-generation peers (Gibbons & Borders, 2010; Green 2006; Schunk & Pajares, 2009; Terenzini et al., 1996; Pascarella et al., 2004). This qualitative case study focused on the self-efficacy development of high-achieving, first-generation college students. By shedding light on how these students’ self-
efficacy orientations have developed and influenced their collegiate success, a research gap in
the literature on both self-efficacy and first-generation college students was uniquely addressed.

In Chapter One, I detailed the interpretive framework for the study. It followed a cyclical
pattern that corresponds with the development of self-efficacy as described in previous studies
(Bandura, 1977; Pajares, 2001; Schunk & Mullen, 2012; Schunk & Pajares, 2009). First, students
were asked to share mastery/lived experiences, vicarious-modeled experiences, and examples of
social/verbal persuasion, particularly as it relates to their academic achievement in college.
Second, students reflected on how these experiences and messages have influenced their success
in college. Studies examining the development of self-efficacy, particularly in educational
settings, suggest self-assessments of capability are influenced to varying extents by all three
sources of self-efficacy information referenced above (Bandura, 1977; Pajares, 2001; Schunk &
Mullen, 2012; Schunk & Pajares, 2009). Given the established connection between self-efficacy
and academic achievement (Bong, 2001; Chemers, Hu, & Garcia, 2001; Multon et al., 1991;
Vuong, Brown-Welty & Tracz, 2010; Zajacova, Lynch, & Espenshade, 2005; Zimmerman,
2000), qualitatively identifying and analyzing students’ self-efficacy-related experiences
alongside existing theory can provide valuable insight in terms of informing practice.

The purpose of this study was to illuminate specific ways educational practice might be
enhanced as it relates to the promotion of self-efficacy and, by extension, academic achievement
among first-generation college students. I chose to conduct a qualitative case study focusing
specifically on high-achieving, first-generation college students because both the methodology
and sub-group had not received extensive attention in relation to one another (Griffin, 2006;
Ramos-Sanchez & Nichols, 2007). In terms of significance, this study sought to better
understand the process of academic achievement for first-generation students, a student
population that has seen disparate achievement-related outcomes in college. By focusing on high-achieving, first-generation college students, I sought to develop a better sense of what approaches, strategies, and orientations are conducive to the collegiate success of this group as a whole. My two core research questions were as follows:

1. How has self-efficacy developed among high-achieving, first-generation college students?
2. How has self-efficacy influenced the academic achievement of first-generation college students?

My sub-questions, which directly aligned with Bandura’s (1977) theory about the development of self-efficacy, were as follows:

1. What mastery/lived experiences have influenced the self-efficacy of first-generation college students?
2. What vicarious/modeled experiences have influenced the self-efficacy of first-generation college students?
3. What forms of verbal/social persuasion have influenced the self-efficacy of first-generation college students?

I adopted a qualitative case study methodology for this study. All 16 participants met the desired eligibility criteria. First, participants were all first-generation college students, defined as “any postsecondary-level student whose parent(s) or legal guardian(s) have not earned a bachelor’s degree” (Choy, 2001, p. 9). Second, participants were all members of the honors program at the institution in the study. Third, all participants were Pell Grant-eligible, an indicator of financial need. Lastly, all participants were classified as seniors at the time of the study, having earned no less than ninety college credits.
I conducted two separate 45-60 minute, structured interviews with each participant. The first interview focused on identifying self-efficacy-related experiences. For the second interview, participants reflected on the influence of these experiences in relation to their academic achievement in college. After manually transcribing all interviews, I analyzed the data and identified relevant themes. The first set of themes was general in nature, relating to students’ perspectives about their first-generation status as well as their enrollment in the honors program. The purpose of these themes, which were presented in Chapter Five, was to provide context for each participant’s personal background and orientation. The second set of themes focused specifically on highlighting participants’ experiences in relation to the sources of self-efficacy information. Additionally, I sought to establish parallels regarding how these experiences influenced students’ success in college. The following discussion further explores the second set of themes, which directly relate to the primary research questions for the study. First, I identified and analyzed connections between participant responses that address the development of self-efficacy. These include the following:

1) speculating on the temporal order in which self-efficacy develops,

2) highlighting experience as a key component of self-efficacy development,

3) framing self-efficacy as developing cumulatively,

4) connecting self-efficacy with confidence, motivation and resilience.

To highlight the influence of self-efficacy, I offer parallels between participants’ self-efficacy experiences and the extent to which they attribute these to their success in college. Consistent with the research sub-questions, I weave some participant narratives throughout the discussion reflecting each of the following aforementioned sources of self-efficacy information:

1) lived/mastery experiences,
2) modeled/vicarious experiences
3) verbal/social persuasion.

Discussion

Self-Efficacy Development

Social cognitive theory helps explain how human cognition influences behavioral choice over time (Bandura, 1977). Self-efficacy, a critical component of the overarching theory, is most commonly defined as “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Mullen, 2012, p. 220).

Bandura (1986) rooted human action in a cycle known as reciprocal determinism, or triadic reciprocality. In this cycle, individual thoughts, the external environment, and individual behavior interact such that, over time, they mold our self-assessments of capability, or self-efficacy (Schunk & Mullen, 2012; Schunk & Pajares, 2009). Although behavior would seem a logical end point in such a cycle, it is not. Rather, theoretically speaking, behavior and subsequent outcomes associated with behavior can (and often do) go on to influence both individual thought processes and/or the external environment. This dynamic is important to consider in the subsequent discussion, which begins by analyzing the following points identified over the course of the study relating to self-efficacy development: 1) temporal development, 2) experience matters, 3) self-efficacy is cumulative, and 4) confidence, motivation, and resilience.

Temporal development. Particularly during second interviews, I became interested in learning participants’ opinions on what came first in terms of their success, academic achievement or validation from their respective external environments (i.e. positive teacher feedback). It seemed to me at the time that this would provide some insight as to whether or not self-efficacy development is moved forward via internal orientations or some external stimulus.
An inherent limitation of most qualitative research is the difficulty in establishing causality. This study was no different in this regard, as the participants did not address the question of causality on a consistent basis. However, since participants reflected on their educational experiences over time, there was at least some opportunity to shed light on how self-efficacy can develop at the individual level.

David specifically mentioned “passion” and “interest” as drivers of his academic success before and during college. According to him, a passionate mindset about a subject tended to dictate performance more than the reverse scenario. Counter to David, Andres described how in high school his “passion” about and grades in specific academic subjects, particularly math, were influenced more by environmental factors. He recalled,

When I was in tenth grade algebra…that was the exact point I stopped being good at math. Like the previous year, I had geometry and I think I got an A-minus. I thought it was easy, kind of cool. Next year, I take algebra, drop to a C, and can never do math again…the teacher had this sort of negative effect on me and sort of crippled my ability in the subject of mathematics.

Maria also spoke to the question of temporal order as it relates to self-efficacy and academic achievement. As opposed to David and Andres’ narratives, which focused on the mastery/lived experiences associated with earning a grade, Maria’s centered on social/verbal persuasion. She described being placed in a low-performing group in her elementary school class in Peru and, after beginning to receive some validation for her work, increasingly grew more confident and sure of herself as a student.

In Chapter Five, I highlighted a similar account Alexandra provided about an advisor at the local community college who offered her a full scholarship to take summer courses.
Alexandra, who held a 2.6 GPA, described herself as “not that bright of a student” in high school, and had no aspirations to attend college previously, said the feeling of someone believing in her shifted behavior such that she achieved a perfect 4.0 GPA at the local community college over the course of two years. From her perspective, temporally speaking, an affirming example of social/verbal persuasion preceded high achievement.

Although the methodology of this study was never intended to establish causality, doing so might be irrelevant. Ultimately the answer to my question of what came first, achievement or external validation, is that both can be the spark in developing a positive or negative self-efficacy orientation. According to Bandura (1977), the relationship between individual thought processes, the external environment and individual behavior is cyclical and multi-directional. That is, there is no prescribed progression that dictates which of these elements should or does occur first or last. Rather, they influence each other organically and in non-linear fashion. David described the relationship between his internal thought processes (i.e. “passion”) and behavior (i.e. achieving high grades) as a “circle. “This characterization aligns with Bandura’s (1977) explanation of triadic reciprocality and suggests that, perhaps, Andres and Alexandra are simply describing different points in the same “circle.” This is an important distinction to understand for practical purposes since it highlights that educational interventions have the potential to keep the “circle” moving positively, stall such positivity (i.e. negative experience, discouraging feedback) or even begin a pattern of negativity similar to what Andres described.

**Experiences matter.** Aligning with theory, mastery/lived experience was the only source of self-efficacy information in the study that was consistently positive and that participants’ reported was influential. These experiences were remarkably different, ranging from research opportunities (Clyde, Alexandra, David and Conchita) to being invited to meet the campus
president (Ivanna) to going on an archaeological dig in Israel (Petra) to earning excellent grades (Sophia and Sebastian). Yet, students provided equally compelling accounts detailing how these experiences had supported and influenced their success in college. Sophia credited the experience of being in the honors program with reinforcing her major choice and helping her to develop from an intellectual standpoint. Carolina credited being elected president of the pre-veterinary club despite her accent as indicative she could “make it and be something better.” Jimmy attributed completing a dual enrollment program at the institution in the study while still in high school as convincing him “college was doable.” The experience of earning straight A’s for the first time made Patty feel like, having achieved the goal once, she could “probably do it again.”

The literature on self-efficacy supports participants’ accounts attributing positive mastery/lived experiences to a greater sense of “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Mullen, 2012, p. 220). As the only source of self-efficacy information based at the individual level rather than strictly depending on social comparison, mastery/lived experiences are said to hold the greatest influence in terms of shifting our self-assessments of capability over time (Schunk & Pajares, 2009). I will address the importance of quality mastery/lived experiences in greater detail later in this chapter.

**Self-efficacy is cumulative.** There is no critical mass of experience or verbal encouragement needed to influence self-efficacy and any single event is unlikely to inform one’s long-term mindset. Rather, researchers have described self-efficacy development as occurring over time as individuals cultivate the information required to positively or negatively shift their orientations (Bandura, 1977; Pajares, 2001; Schunk & Mullen, 2012; Schunk & Pajares, 2009).
In this study, several examples emerged supporting the idea that self-efficacy is developed cumulatively, building on itself in such a way that can either inspire achievement or limit it.

In our interviews, Sebastian adamantly described how much encouragement he had received leading up to college. In reflecting on how it increasingly influenced him over time, or “picked up speed,” he explained, “It’s like pushing that boulder down the hill…it just keeps picking up speed. [My teachers’] compliments plus my efforts just kept steamrolling through every obstacle that got in my way before college.”

Alexandra described a similar influence pattern, using the imagery of “opening doors.” She reflected,

Then this person came to MDC and offered me a scholarship. That was the first door that opened. It led me to think, ‘Hmm, maybe I’ll pursue a degree.’ Once that door opened, they thought I had such a great personality that they offered me a student assistant job. That job led to a part time job. That job led to good recommendations so I could apply to the summer program at Yale. That summer program at Yale led to good recommendations so I could apply to the Tufts program. In between all of that, I was able to acquire a job at the medical school since I had great recommendations and personal relationships with my co-workers…there was synchronization like that.

In detailing the cumulative influence of academic engagement opportunities that had defined much of his success in college David, a Biological Sciences major, likened the pattern to a “chain reaction” and “domino effect.”

Because I was able to get into all those [research] programs, I was able to [participate in undergraduate research conference] and because I was able to do that I was able to apply for a fellowship here known as McNair. It’s a really well-known program and they aid
and help you financially [for advanced degrees]…and I was able to do that because the main requirement for the program was having a research background.

As previously mentioned, few students in the study recalled influential negative experiences or verbal messages. This was particularly true as it related to addressing the cumulative influence of negative stimuli on self-efficacy. One of the few exceptions was Andres’ account, which was referenced above.

The “exact point” Andres cited, after which he claimed to “no longer being good at math,” is not really exact. At least in terms of self-efficacy theory, it stands to reason his skills in math did not simply disappear in the tenth grade. Rather, as Andres explained, a confluence of diminished interest and what he perceived as poor instruction gradually deteriorated his interest in the subject matter such that his grades ultimately suffered.

Andres explained this progression was driven by what he referred to as “kicks.” In talking about his experience with math in high school and his initial experience majoring in business in college, Andres indicated “But there’s always that little kick that makes you either hate or love [an academic subject]. It sort of depends…it depends a lot on how the subject matter is presented.”

Although the “kicks” worked against him in terms of his self-efficacy development with math in high school and as a business major in college, Andres later explained how different “kicks” had motivated him to become engaged in his academic major, religious studies.

And then the religion class, I was there for the first week, and I was like, ‘This is pretty interesting.’ And then…there can be multiple kicks. It starts with peaked interest, mild fascination, then you get really into it, then you start doing things like site visits or whatever and going and talking to other religious studies students, going to religious
studies events, seminars that they have. Then there’s this huge personal moment where you’re like, ‘Wow, this is really important’ or ‘Wow, I have to do this the rest of my life.’ It’s a line.

Similar to David and others presented in this section, Andres framed college success as a progression, building upon itself. What determined their self-efficacy orientation as seniors, according to their accounts, was the nature and influence of the respective “kicks” they were exposed to. Also it should be noted that most of these “kicks” or “opening doors” or “falling dominoes” were associated with some experience or series of experiences. This reaffirmed mastery/lived experience as a critical, albeit not singular, driver of self-efficacy development. From a practical standpoint, it also reinforces the value of bridging positive experiences such that students’ self-efficacy and achievement increasingly enhance one another.

Confidence, motivation and resilience. The aforementioned themes related to self-efficacy development were primarily process-oriented. However, it is also important to highlight self-efficacy development in relation to student characteristics. This inclusion was critical in providing the most comprehensive response to the primary research question of how self-efficacy has developed among high-achieving, first-generation college students.

Near the end of my second round interviews with participants, I asked the following question: “Generally speaking, if someone says you cannot achieve something when it comes to school, what would be your typical response?” Every participant’s response exuded confidence about overcoming such a claim by proving the hypothetical doubter wrong. Clyde retorted, “Watch me. Any student, especially first-generation students…if someone says you can’t do something, you’re going to try to prove them wrong.”
Jimmy responded simply, “No, I can [do it].” Patty described how she might respond in such a scenario, “I would feel insulted and I have to prove them wrong. Even if I feel like its not something I can’t do like a math class I would probably try really hard just to prove them wrong.”

In his response, Sebastian connected his sense of confidence with the cumulative encouragement he had received from his parents. He explained,

> It’s that confidence that’s been building up for years. It’s almost like an aggression to prove people wrong. That aggression actually comes from my parents always pushing me forward to keep trying to do my best…motivating me to continue my education, to continue becoming successful in life. By them doing that they’ve created…they’ve put the embers…and when people say something like that it’s just fuel. It just ignites the fire.

This notion of “proving wrong” demonstrates a sense of confidence among a group of students whose personal accounts and status as high-achievers aligned with a greater sense of self-efficacy.

Additionally, participants described their own motivation toward success in college as both driving and being driven by experiences and messages associated with self-efficacy. For example, David felt motivated to “keep up the good work” as he continued to receive positive affirmation from others. Despite initially feeling unsure of how “smart” she was in relation to her peers in the honors program, Conchita framed it as something that has kept her motivated in college. In response to her father’s cash rewards for good grades growing up, Kathi described herself as feeling increasingly motivated to achieve academically. Carolina described a similarly increasing sense of academic motivation when she realized her career path of becoming a veterinarian was a realistic option and good fit for her.
Lastly, participants’ responses reflected an extraordinary sense of resilience over the course of their respective educational careers. For most, this resilience related to experiences of participants who had previously overcome significant obstacles in their personal lives. As with confidence and motivation, a sense of resilience dually drove and was driven by participants’ self-efficacy development. For example, despite initially being denied access to higher education due to her immigration status, Sophia described the experience as “pushing her even harder to do more” than she otherwise would have with the privilege of citizenship. Ivanna and Patty’s sense of resilience was at least somewhat formed by underlying fear of failure. After failing a college math course, Ivanna described herself as being “on the floor.” She described her feeling about retaking the course,

I didn’t feel confident in myself to be able to do that, but them I’m like, ‘You know what? I feel like this is the only thing I can do with my life. If I don’t do this, I’ll probably live at my mom’s house the rest of my life.’ I want to get out [of my parent’s house], do something, and have an awesome career…so then I just said, ‘Okay I’m going to do this and I’m going to put my all in it.’ My all gave me a passing grade.

As previously discussed, participants generally identified few negative experiences and/or verbal messages that were particularly influential. Part of this can be attributed to their status as high-achieving students. For example, logically speaking, these students are less likely to have failed a course or been overwhelmingly discouraged by others in school. However, for some participants who offered negative examples, these experiences had often been redefined as successes. Alexandra attributed her success directly to instances where she had failed. Alexandra explained that her failures had made her more “mature” and would prepare her for “the real world.” Clyde reframed a negative experience working in a professor’s research lab as a
“learning experience.” Conchita described the negative feelings associated with receiving one of her first research papers back with considerable critical feedback as having “made me better.”

Sebastian described his response to having failed some exams in the past,

I always come back stronger and finish the semester strong. If I don’t know something I go to [professors’] office hours, ask them questions…ask them questions no other student has based on the work they’re doing or presenting in class.

Finally, in reflecting on why he has been successful over the course of his college career, Jimmy provided this response,

The reason I’ve been so successful [in college] is that I’ve failed so much…I’ve been successful because I’ve learned a lot of things throughout my college career, and I don’t feel like I learn by doing things right all the time. I feel like I learn by learning how to fail, and learning that if I fail on something, then I know that’s a way not to do it. And so the next time, I’ll always try to improve.

This section highlighted practical themes that emerged from the study relating to the development of self-efficacy among high-achieving, first-generation college students, particularly related to their academic achievement. First, I discussed the temporal development of self-efficacy. Second, I highlighted the importance of lived/mastery experience in terms of developing participants’ self-efficacy orientations in the study. Third, I discussed how self-efficacy is cumulative over time. Lastly, I discussed how participants demonstrated confidence, motivation, and resilience in the study. The next section considers the broader influence a greater sense of self-efficacy might have on participants’ success in college.
Self-Efficacy Influence

Previous sections have connected specific participant experiences with theory that addresses the development of self-efficacy over time. Certainly this specificity is important in understanding how self-efficacy develops functionally. However, it is also important to highlight the more general ways in which participants connected their stories to a sense of success in college. These broader reflections are the focus for this section.

**Alexandra.** In our first interview, when I asked what she attributed her collegiate success to, Alexandra initially had a difficult time offering an explanation. Her uncertainty was at least somewhat understandable given her turbulent home life growing up, which she described as having provided little encouragement and support. However, in our second interview, she reflected,

> I wanted to prove the statistics wrong that said I wasn’t supposed to do what I was meant to do. Just being different and doing things differently from what everyone said I should have been able to do gives me some sort of satisfaction that maybe I can lead the way for other people. Especially with the career that I’m going to go into, which is medicine. A lot of people are going to tell me, ‘You can’t do it.’ It would be awesome if someone that has overcome a lot of adversity [like me] can do it and share his or her story. That’s what drives me, being able to be a mentor to someone when I get older.

For Alexandra, her individual sense of self-efficacy evolved such that she felt capable of assuming the responsibility for supporting others from similar personal backgrounds.

**Andres.** Andres attributed his collegiate success to engaging intellectually and having reconciled the relationship between his own thought processes and the negative external pressures he perceived in transitioning from high school to college. He explained,
You have to be engaged in some way. I think the issue is people are engaged in the wrong way. Part of it is this culture where we…it seems like really bad emotional coaxing. It’s like, ‘Oh, you’re going to do great, you’re going to be special, you’re going to be like this other person.’ Then just like in high school and everywhere, it’s just a bunch of people competing against each other and they’re trapped…emotionally suffocated. What we should be saying is, ‘What other people do doesn’t really matter. You’re independent from that.’ I think it’s precisely because people are letting themselves be controlled by impressions that others have…they’re not unfolding themselves. They’re not growing well, because they feel stunted by their environment. People should learn to not care about their environment. They can have a relationship with their environment, but they can’t let it suffocate them. Tell the environment to go away for a little bit.

**Sebastian.** Similar to Alexandra, in reflecting on his college experience, Sebastian blurred the line between his success and the personal adversity he overcame along the way. He explained,

I think, like with everything, experiences can change your life. I’ve had a lot of good experiences and some bad ones. The mixture of the good and the bad has helped me become who I am and do what I do and become successful academically... I grew up in a pretty rough neighborhood when I used to live in Colorado… All of the teachers told me, ‘You’re such a great student; I don’t know why you don’t put forth the effort.’ I was rebellious, I guess. It was that rebellious stage. That’s one of the reasons why we moved to Florida, to get away from that environment. My parents saw I wasn’t going to go anywhere. They did the correct thing because out of my graduating class in middle school,
only 13 of them graduated high school…out of like 500-and-something students in my class. We didn’t have money. It was going through the socioeconomic ranks to finally being middle class that has taught me…when you’ve been at the bottom and you look up and make it up…you just never want to be there again, you just keep striving and working harder. It’s like a never-ending mountain that you just have to keep climbing. You just got to keep climbing.

**Sophia.** In reflecting on her success in college, Sophia was similarly focused on highlighting the importance of having overcome personal adversity.

I guess since I was eight years old and came to this country, I’ve always been a fighter…I’m going to try really hard for this, just because of the way my parents went through everything they had to go through and still go through to this day. They always give their best for everything without even knowing the outcome of it, so I guess the way they view life and the way they push through is also the way I am too. …there’s always things in life that are obstacles and things like that, so at any point you can be like, ‘Well I’m done, I’m not going to try anymore’ or ‘Why put so much effort into this?’ I don’t know, I guess it’s in me to try more, try harder and want to get more than what I have. I’m never satisfied. I always want more, so I push myself.

In this section, I highlighted participants’ reflections that speak to the influence self-efficacy orientations have had on their success in college. In many ways, how students made meaning of their college success transcended grade attainment or even career development. Rather, achieving academic success, and the process associated with it, was rooted at a personal level such that participants attributed their success to having overcome adversity in their lives as preceding or even inspiring success in school. While the previous section introduced key themes
Practical Implications

This study sought to gain a greater understanding of how self-efficacy developed among high-achieving, first-generation college students and influenced their academic achievement. In doing so, I hoped to highlight opportunities for improving practice related to first-generation college students. As a result of analyzing themes from the participant interviews, five practical implications emerged. First, prioritizing experience, or the importance of exposing students to positive and meaningful experiences. Second, considering the psychological benefits associated with honors-like programs. Third, reframing deficits, which includes reexamining the discussion from Chapter Two about the deficit model and first-generation college students in the context of findings from the study. Finally, reframing the role of family in supporting the success of first-generation college students.

Prioritizing Experience

Self-efficacy researchers contend lived/mastery experiences are the most influential sources of self-efficacy information. This is primarily because direct experience is seldom dependent upon social comparison and, thus, focused at the personal level (Bandura, 1977; Pajares, 2001; Schunk & Mullen, 2012; Schunk & Pajares, 2009).

Findings from the current study were consistent with the theory in this regard. Participants’ lived/mastery experiences were overwhelmingly positive, as were their accounts of how these experiences influenced their success. Although participants recalled a number of vicarious MODELED experiences and verbal/social messages, they were not consistent in terms of
quality (i.e. positive or negative) or influence. For example, Maria described the positive verbal encouragement of her mother as creating a negative influence in the form of added pressure to succeed. This sort of contradiction was not seen with lived/mastery experience in the study. Also, participants generally had an easier time articulating how lived/mastery experiences had influenced their success.

Although other sources of self-efficacy information can be influential in enhancing students’ self-assessment of capability, none are as powerful as mastery/lived experiences. Therefore, it stands to reason that any educational intervention intending to promote academic success in college would do well in focusing on creating opportunities for students to have these kinds of positive experiences. In this study, influential experiences included a variety of activities ranging from conducting research (Alexandra, Clyde, David, Conchita), to earning high grades (Maria, Carolina, Kathi), to going on an archaeological dig (Petra), to engaging in the classroom (Andres, Christina).

Despite that, two considerations should be kept in mind. First, “passion” and “interest” in the experience appear to hold some degree of importance (Andres, David, Clyde, Sebastian, Petra) in terms of the extent to which an experience will be influential or not. For example, Patty was ultimately tempered about the influence her time as a psychology research assistant had. Although she had positive things to say about it overall, the fact she had chosen to pursue another career path outside of psychology lowered her “passion” and “interest” and, thus, limited the influence of the overall experience. Second, as was the case with Andres in his tenth grade math class, negative lived/mastery experiences can be just as influential as positive ones. As such, despite intentions, practitioners would do well to ensure students are interpreting their respective experiences as positive.
Honors-Like Programs

Whether they ultimately enjoyed their experience in the honors program or not, all participants in the study agreed on two things. First, upon being accepted to the program, they all described feeling “special” or “prestigious.” Being identified as “honors” students provided at least some measure of validation of their status as excellent students. Second, students listed an array of tangible and intangible benefits they received because of their status as honors students.

From a self-efficacy standpoint, being labeled an “honors student” and internalizing that as an affirmation of one’s academic ability is a clear example of positive and potentially influential social/verbal persuasion. In the study, participants recalled feeling great pride upon receiving their acceptance letter into the honors program. For several (Sebastian, Petra, Carolina, Sophia), it served as an acknowledgement that they were “doing the right thing.” According to Green (2006), this kind of validation seldom comes from programs traditionally intended to support the success of first-generation college students. Rather than making students feel “special” or “hard-working,” these programs focus on deficiencies, or “curing so-called ills” (p. 25). In fact, the students in the study notwithstanding, first-generation college students are generally less likely to be enrolled in an honors program relative to their continuing-generation peers (Terenzini et al., 1996).

The fact that first-generation college students are not as likely to be enrolled in honors programs is made worse when one considers the various benefits students in these programs have exclusive access to. For example, the honors program in the study has an arrangement with the institution’s medical school such that all honors students are guaranteed an interview upon graduation. Additionally, all honors students are granted priority registration, meaning they can choose classes before anyone else at the institution does. Not only does this benefit these
students in terms of essentially guaranteeing their desired class schedule, but their desired instructor as well. Given the extent to which participants described professors as being influential in their collegiate experiences, one has to consider the extent to which these students are set up to succeed.

That said, rather than making this a statement against honors programs, the better focus is to consider how programs, approaches and strategies intended to support the success of first-generation college students are furnishing the kinds of psychological and tangible benefits the honors program in the study offers its students.

**Reframing Deficits**

Findings from the study have detailed the adversity many participants overcame in achieving what they have. Some of this adversity has presented itself in college. For example, Kathi’s father passed away during her junior year. However, participants such as Alexandra, Sebastian, Clyde, David, Carolina, and Maria also overcame considerable barriers prior to college. Some of these, such as dealing with the effects of poverty (Sebastian, Clyde), align with research on first-generation college students (Terenzini et al., 1996).

However, where research has often framed these seeming deficiencies as barriers to success, participants in the current study largely described them as critical motivators. For example, Alexandra and Sebastian described school as a “safe haven” from gang violence, a turbulent home devoid of encouragement, and poverty. In many ways, this disconnect has yielded what Green (2006) refers to in saying,

For many years the deficit model approach has compelled educators to focus on academic or cultural deficits that hinder students’ adequate adaptation to the college environment.
In turn policies, programs, and educational services have been created to cure these so-called ills (p. 25).

Gladwell (2013) provides a possible explanation as to why this discrepancy may exist in writing about how underdogs, individuals commonly underestimated because of some so-called deficiency, can and often do ultimately persevere. He explains the experience of surviving difficulty, whether it is one time traumatic experience such as the London bombings during World War II or a constant experience such as autism, “Traumatic experiences can have two completely different effects on people: the same event can be profoundly damaging to one group while leaving another better off” (p. 134).

He goes on to say people often mistakenly “jump to the conclusion that there is only one kind of response to something terrible and traumatic” (p. 134). Certainly the struggle of poverty and negative experiences in general can, as Sebastian said, “crush you.” However, as true as that might be, we must also be mindful of the potential psychological reward associated with overcoming difficulty. From a practical standpoint, this speaks to the core of how we educate first-generation students, as assuming deficiency can derail the compellingly positive engine of experience, verbal encouragement, and achievement participants described in this study.

Rethinking Family

Findings by the Higher Education Research Institute (2007) indicate first-generation college students are at a disadvantage in terms of lacking “cultural capital.” Unlike their continuing-generation peers, first-generation students do not have access to college-related information at home, whether it is assistance navigating the college admissions process or an understanding of what to expect from college academically. In this way, families of first-
generation students have been characterized as yet another deficit first-generation students must overcome in order to achieve success in college.

However, in this study, the families of first-generation college students were anything but detrimental to their success. In Chapter Five, I highlighted numerous examples of students who cited parental influence as an important motivator behind their success. Students emphasized how they wanted to make their parents proud and honor the sacrifices many of them had made in ensuring their children had access to opportunities they never had. Although none of the students received the kind of assistance and support mentioned in the study above, they nevertheless emphasized feeling supported in other equally important ways.

In terms of practical implications, this study demonstrated parents could be a steady and influential source of support for first-generation college students. Although they may not be able to contribute in the same manner described in the definition of “cultural capital,” families remain a valuable and relatively untapped resource for higher education practitioners to continue bolstering students’ sense of self-efficacy. However, a critical first step will be to dismiss the notion that these families have nothing to offer when it comes to college.

**Limitations of the Study**

Two limitations I highlighted prior to conducting the study were relevant at its conclusion. First, the sample ended up being rather homogenous, with most of the participants identifying as Hispanic women. Second, given the methodology for the study, the inability to generalize findings to first-generation college students as a whole predictably placed limits on the extent to which findings could be applied to the wider population. Lastly, not being able to formally measure students’ self-efficacy forced me to draw connections based on participants’ accounts of various related experiences. This section will address each of these in detail.
The homogeneity of the sample made it difficult to connect findings across individual identities. This was particularly true since some unique experiences emerged from the group, most notably those associated with immigrating to the United States. Given that, in some cases, it was difficult to ascertain to what extent self-efficacy had developed independent of these experiences. Certainly, any future inquiry in this area would do well to assemble a more racially diverse sample in order to maximize.

Second, most qualitative research shares an inherent disadvantage. That is, findings are typically contextual and thus are limited in terms of their generalizability. This was certainly the case for this study. Although participants’ accounts aligned with the tenets of self-efficacy, one cannot assume that other first-generation college students would internalize their experiences in the same or even similar ways.

Lastly, confirmation of students’ self-efficacy was done deductively, based on self-efficacy theory. Unlike some other self-efficacy studies, I did not formally measure students’ self-efficacy at any point in the study. This was a limitation in that I relied on compelling yet indirect confirmations of students’ experiences in college. For example, based on the literature I assumed high-achievers would exhibit behavior consistent with having a heightened sense of self-efficacy. In most case they did; however, without administering a formal measure, it was impossible to speak on any single students’ self-efficacy with any level of certainty.

**Directions for Future Research**

Based on this study, there are two directions further research in this area can take in order to continue addressing the topic of self-efficacy and first-generation college students.

First, future research can and should continue to explore strengths specifically associated with the first-generation journey. For example, participants in the study described a proclivity for
overcoming adversity in their professional and educational lives. Although this was highlighted in this study, further exploration is warranted in understanding how this resilience is developed over time, as well as how it can be used to maximize students’ college experiences.

Second, Schunk and Pajares (2009) predicted increasing diversity in educational settings would make it more difficult to determine how self-efficacy is molded over time. In this study, the unique personal backgrounds of participants, in some ways, yielded more questions than answers. Future research can and should examine self-efficacy development across different identities and institutional contexts. In this way, not only will culture-specific insight be gained, but some of the suggestions for improving practice that were presented here can be tested across these unique contexts.

**Conclusion**

Self-efficacy is a primary component of social cognitive theory and is defined as “one’s perceived capabilities for learning or performing actions at designated levels” (Schunk & Mullen, 2012, p. 220). Self-efficacy has been shown to have considerable explanatory and predictive power in relation to task persistence, motivation, resilience and achievement (Bong, 2001; Bouffard-Bouchard, 1990; Cervone & Peake, 1986; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Multon, Brown & Lent, 1991; Pajares, 1996; Zimmerman, 2000). Qualitative research specifically examining the development and influence of self-efficacy among high-achieving, first-generation college students is limited, and thus became the focus of this study.

Findings from this study aligned with research on self-efficacy (Bandura, 1977; Pajares, 2001; Schunk & Mullen, 2012; Schunk & Pajares, 2009). In terms of self-efficacy development, participants described lived/mastery experiences as the most influential source of self-efficacy information prior to and during college. Additionally, the influence of all three sources of self-
efficacy information examined in the study was described as being cumulative over time. Through their responses, participants exhibited a sense of confidence, motivation, and resilience commonly associated with the development of high self-efficacy in the literature (Bandura, 1977; Pajares, 2001; Multon, Brown & Lent, 1991; Zimmerman, 2000). In terms of how self-efficacy influences academic achievement and overall success in college, participants cited overcoming adversity and academic engagement as the most influential determinants of their personal success.

By better understanding the role self-efficacy plays in molding the collegiate experiences of first-generation students, this study sought to discover ways in which we can meaningfully address the disparate educational outcomes for first-generation college students. Findings suggest self-efficacy may serve as a useful theoretical framework in crafting curricular and co-curricular approaches and strategies that responsibly promotes learning and achievement in college for this student population.
APPENDIX A

INFORMED CONSENT FORM

FIU FLORIDA INTERNATIONAL UNIVERSITY

ADULT CONSENT TO PARTICIPATE IN A RESEARCH STUDY
Examining the Self-Efficacy of High-Achieving First-Generation College Students: A Case Study

PURPOSE OF THE STUDY
You are being asked to be in a research study. The purpose of this study is to learn more about how the self-beliefs of high-achieving first-generation college students have coincided with their academic achievement over the course of their college careers..

NUMBER OF STUDY PARTICIPANTS
If you decide to be in this study, you will be one of no less than twelve and no more than twenty people in this research study.

DURATION OF THE STUDY
Your participation will require approximately 2.5 hours, which will be spread across a period of 4 weeks.

PROCEDURES
If you agree to be in the study, we will ask you to do the following things:
1. Complete a brief online demographic survey (5-10 minutes)
2. Sit for two individual interviews, which will take place in a private room at the main campus library, or in another appropriate location of your choice. This procedure involves my asking you to reflect on your college experiences, specifically those related to your academic achievement. The interviews will be audio-recorded and then transcribed. (45-60 minutes for each interview)
3. Following the first interview, you will be asked to review the interview transcript in order to ensure accurate representation of your perspectives. The second interview will be scheduled once you have approved the first interview transcript. (15-30 minutes)

RISKS AND/OR DISCOMFORTS
The following risks may be associated with your participation in this study: The study has no known risks.

BENEFITS
The following benefits may be associated with your participation in this study: The benefits to participation include providing information on effective approaches for promoting success among first-generation college students.
ALTERNATIVES
There are no known alternatives available to you other than not taking part in this study. However, any significant new findings developed during the course of the research which may relate to your willingness to continue participation will be provided to you.

CONFIDENTIALITY
The records of this study will be kept private and will be protected to the fullest extent provided by law. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records. However, your records may be reviewed for audit purposes by authorized University or other agents, who will be bound by the same provisions of confidentiality.

Prior to being interviewed, students will choose an identifying pseudonym, which will be used for the duration of the study. As such, in any sort of report recorded, we will not include any information that will make it possible to identify a subject. The data will be published as part of a dissertation. The information obtained during this study may be published in social science journals or presented at social science meetings in accordance with the confidentiality procedures described here.

COMPENSATION & COSTS
You will receive a payment of $25 in the form of an Amazon gift certificate at the conclusion of each interview ($50 total) for your participation. If you choose to withdraw from participating in the study prior to the conclusion of either interview, you will receive pro-rated compensation in the form of a cash payment.

You will not be responsible for any costs to participate in this study.

RIGHT TO DECLINE OR WITHDRAW
Your participation in this study is voluntary. You are free to participate in the study or withdraw your consent at any time during the study. Your withdrawal or lack of participation will not affect any benefits to which you are otherwise entitled. The investigator reserves the right to remove you without your consent at such time that they feel it is in the best interest.

RESEARCHER CONTACT INFORMATION
If you have any questions about the purpose, procedures, or any other issues relating to this research study you may contact Louis Macias at FIU Graham Center 216, (305) 348-2436, lmacias@fiu.edu.

IRB CONTACT INFORMATION
If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.
PARTICIPANT AGREEMENT
I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions I have about this study, and they have been answered for me. I understand that I will be given a copy of this form for my records.

________________________________           __________________
Signature of Participant      Date

________________________________
Printed Name of Participant

________________________________    __________________
Signature of Person Obtaining Consent    Date
APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

Date____________________ Name__________________ Pseudonym___________________

1. Gender ____ Male ____ Female

2. Race/Ethnicity

_____________________________

3. Age

___________

4. School Classification (freshman, sophomore, junior, senior)

__________________

5. Academic Major/Minor

_______________________

6. Cumulative GPA

_______________________

6. Where were you born (City, State, and Country)?

__________________________

7. Have any of your parents or guardians attended college?

____Yes ____No

If so, please explain where and when they attended/are attending: _________________________

8. Have any of your parents or guardians graduated from college?

____Yes ____No

If so, please explain where and when they graduated: ________________________________

9. Have any siblings attended/are attending college?

____Yes ____No

If so, please explain: ______________________________________________________________

10. Have any siblings graduated from college?

____Yes ____No

If so, please explain: ______________________________________________________________
APPENDIX C

FIRST INTERVIEW PROTOCOL

Date______________ Time_______________ Pseudonym_________________________

Timeframe: 45-60 minutes

Introduction
- Introduce yourself
- Discuss the purpose of the study
- Provide consent form and obtain signatures.
- Provide structure of the interview (audio recording, selection of pseudonym, duration)
- Ask if there are any questions
- Test digital audio recording equipment
- Make the participant comfortable by smiling, paying attention to my own body language, actively listening and building rapport

Main Research Questions:
1. How has self-efficacy been developed among high-achieving first-generation college students?
2. How have these students’ efficacious beliefs influenced their academic achievement?

Sub questions:
  a) What mastery experiences, or lived experiences, have influenced the self-efficacy of FGS?
  b) What vicarious experiences, or applied experiences of others, have influenced the self-efficacy of FGS?
  c) What forms of verbal persuasion have influenced the self-efficacy of first-generation college students?

Question topics (pre-coding):

1) **Performance Accomplishments** – refers to participants’ lived experiences within a domain of functioning. These questions will focus on specific successful and/or unsuccessful collegiate experiences of participants.

2) **Vicarious (or Modeled) Experiences** – refers to how participants perceive the lived experiences of others they view as similar to themselves. These questions will focus on identifying similar others, and gaining insight into their successful and/or unsuccessful experiences.

3) **Verbal Persuasion** – refers to the verbal messages participants have received from others regarding their prospects for success in various domains of functioning. These questions will focus on the source(s), quality and character of verbal persuasion.

Introduction
1. Tell me a little about why you chose to attend FIU?
2. How would describe first-generation college students?
a. Provide definition, if necessary
3. What does it mean for you to be a first-generation college student?
4. Overall, would you say you have had a successful college experience?
   a. If YES to previous question: To what would you attribute your success in college?
   b. If NO to previous question: To what would you attribute your response that your experience has not been successful?

**Honors College**
5. What was your first impression when you were invited to join the Honors College at FIU?
6. Why did you decide to join the Honors College?
7. Did you already know students in the Honors College before you decided to join?
   a. If YES to previous question: Did this influence your decision to join the Honors College?
      i. If YES to previous question: How so?
8. Having been in the Honors College the last few years, would you say you belong? Why or why not?

**Performance Accomplishments**
9. Provide a few notable examples of specific instances where you have succeeded in college.
   a. After each example, ask participants to describe what they attribute success to
10. Provide a few notable examples of specific instances where you have not succeeded in college.
   a. After each example, ask participants to describe what they attribute lack of success to
11. In which academic subject(s) do you rate yourself as being best at? Ask participant to provide explanation for self-rating.
12. In which academic subject(s) are you least proficient? Ask participant to provide explanation for self-rating.

**Vicarious (Modeled) Experiences**
13. Who would you describe as being similar to yourself when it comes to college?
14. Generally speaking, how would you describe the quality of these peers’ college experiences?

**Verbal Persuasion**
15. In one word, how would you describe the messages you received growing up from other people when it came to school?
   a. Ask participants to provide notable examples of encouraging and/or discouraging messages.
16. In one word, how would you describe the school-related messages you have received from other people while in college?
   a. Describe a few notable messages you have received that have supported your success?
b. Describe a few notable messages you have received that have not supported your success?

Wrap-Up
17. Is there anything else you would like to add or share about your college experience that you feel is important for me to know?
18. Ask additional follow up questions as needed.

Concluding Remarks
- Thank them for their participation
- Remind them about member checking procedure prior to second interview
- Give them $25 Amazon gift certificate if they completed interview, or appropriate pro-rated cash payment for partial completion
- Ask if they would like to see a copy of the results
- Record any observations, feelings, thoughts and/or reactions about the interview
APPENDIX D
SECOND INTERVIEW PROTOCOL

Date______________ Time_______________ Pseudonym_________________________

Timeframe: 45-60 minutes

Introduction
- Greet the participant
- Thank them for coming in for the second interview
- Remind them of the purpose of the study
- Remind them about the consent form and their voluntary participation
- Provide structure of the interview (audio recording, duration)
- Ask if there are any questions
- Test digital audio recording equipment
- Make the participant comfortable by smiling, paying attention to my own body language, actively listening and continuing to build rapport

Main Research Questions:
1. How has self-efficacy been developed among high-achieving first-generation college students?
2. How have these students’ efficacious beliefs influenced their academic achievement?

Sub questions:
   a) What mastery experiences, or lived experiences, have influenced the self-efficacy of FGS?
   b) What vicarious experiences, or applied experiences of others, have influenced the self-efficacy of FGS?
   c) What forms of verbal persuasion have influenced the self-efficacy of first-generation college students?

Question topics (pre-coding):

1) Performance Accomplishments – refers to participants’ lived experiences within a domain of functioning. These questions will focus on the impact of specific successful and/or unsuccessful collegiate experiences participants described during the first interview.
2) Vicarious (or Modeled) Experiences – refers to how participants perceive the lived experiences of others they view as similar to themselves. These questions will focus on asking participants to describe the impact successful and unsuccessful experience of similar others had on them.
3) Verbal Persuasion – refers to the verbal messages participants have received from others regarding their prospects for success in various domains of functioning. These questions will focus on the impact instances of verbal persuasion have played before and during
their college years.

Performance Accomplishments
1. What impact have any positive or negative pre-college experiences had on your sense of or actual achievement in college?
   a. Depending on participant response, may ask follow-up questions here.
2. Individually summarize the few notable examples participants provided in first interview of specific instances where they have succeeded in college.
   a. After each example, ask participants to describe how each successful experience impacted them.
3. Individually summarize the few notable examples participants provided in the first interview where they have not succeeded in college.
   a. After each example, ask participants to describe how each non-successful experience impacted them.
4. Remind participants of the academic subject(s) they described themselves as being most/least proficient in during the first interview.
   a. For each subject, ask participants the following: Have your grades in this subject coincided with your responses (i.e. most/least proficient)? Why or why not?
5. What impact did academic success or a lack thereof play in selecting your college major?

Vicarious (Modeled) Experiences
6. Individually summarize the similar peers participants identified during the first interview.
   a. Imagine one of these peers tells you they struggled in a course you are about to take. How would this impact you?
   b. Can you describe a time when a peer succeeded and how it impacted you personally?
   c. Can you describe a time when a peer did not succeed and how it impacted you personally?

Verbal Persuasion
7. Generally speaking, would you say you received more encouragement or discouragement growing up when it came to school? What do you attribute this to?
8. Individually summarize the messages participants described during the first interview of encouraging or discouraging messages in school growing up.
   a. For each, ask the following question: Describe the impact this message had on you?
9. Generally speaking, would you say you have received more encouragement or discouragement in college? What do you attribute this to?
10. Individually summarize the messages participants cited of encouraging or discouraging messages in college.
    a. For each, ask the following question: Describe the impact this message had on you?
11. Generally speaking, if someone says you cannot achieve something when it comes to school, what is your typical response? To what do you attribute this response?

Wrap-Up
12. Is there anything else you would like to add or share about your college experience that you feel is important for me to know?
13. Ask additional follow up questions as needed.

Concluding Remarks
- Thank them for their participation
- Ask if they would like to see a copy of the results
- Give them $25 Amazon gift certificate if they completed interview, or appropriate pro-rated cash payment for partial completion
- Record any observations, feelings, thoughts and/or reactions about the interview
Hello,

My name is [REDACTED]. I am a doctoral student at the Florida State University (FSU) in the College of Education under the supervision of [REDACTED]. You are invited to participate in a research project entitled: “Examining the Self-Efficacy of High-Achieving First-Generation College Students: A Case Study.” The purpose of this research study is to better understand the experiences of high-achieving first-generation college students. This study has been approved by FSU’s and FIU’s Institutional Review Board.

This case study was developed to ask you a few questions regarding your school experiences, primarily at your current institution, and consists of two separate interviews which will take place approximately two weeks apart from one another. If you choose to participate and complete both interviews, you will be eligible to receive two $25 Amazon gift certificates. The disbursement of the $25 gift certificates will occur at the conclusion of each individual interview.

It is my hope that this study can provide information on the experiences of high-achieving first-generation college students. There are no identified risks from participating in this research.

The interview is confidential. Participation in this research is completely voluntary and you may choose to stop at any time without penalty of any kind. Both interviews will take approximately sixty minutes to complete, and will take place approximately two weeks apart from one another. Responses to the interview will only be reported anonymously to protect the identity of respondents. The study is being conducted as part of a dissertation project and will be published as such.

If you are interested in participating please click the following link, which will take you to a brief online demographic survey: [REDACTED]. Once I have received this information, I will contact you directly to schedule our first interview.

If you have any questions, please let me know.

Thank you for your consideration,
APPENDIX F

FSU HUMAN SUBJECTS APPROVAL MEMO

Office of the Vice President for Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 01/22/2015
To: Louis Macias <louismacias@gmail.com>
Address: 12764 SW 133rd Street, Miami, FL 33186
Dept.: EDUCATIONAL LEADERSHIP
From: Thomas L. Jacobson, Chair
Re: Use of Human Subjects in Research

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(c) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 01/21/2016, you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Kathy Guthrie <kguthrie@admin.fsu.edu>, Advisor
HSC No. 2014.14511
APPENDIX G

FIU HUMAN SUBJECTS APPROVAL MEMO

Dr. Louis Macias

February 3, 2015
"Examining the Self-Efficacy of High-Achieving First-Generation College Students: A Case Study"

The Institutional Review Board of Florida International University has approved your study for the use of human subjects via the expedited process. Your study was found to be in compliance with this institution’s Federal Wide Assurance (00000060).

IRB-15-0031 01/29/15
103211 01/29/16
IRB Expiration Date:

As a requirement of IRB Approval you are required to:

Submit an IRB Amendment Form for all proposed changes.

Receive annual review and re-approval of your study prior to your IRB expiration date.
Submit the IRB Renewal Form at least 30 days in advance of the study’s expiration date, or discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at [http://research.fiu.edu/irb](http://research.fiu.edu/irb)

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REFERENCES


BIOGRAPHICAL SKETCH

Dr. Louis Macias was born in New York City, New York and raised in Miami, Florida. Louis earned his bachelor’s degree in Psychology from Florida State University. While an undergraduate student, Louis completed an undergraduate thesis entitled “Factor Contributing to the Change of Racial Attitudes in College.” After graduating Louis returned to his hometown of Miami, where he began his career as a social studies educator at Henry H. Filer Middle School in Hialeah, Florida, a position he held for six years and an experience which has greatly influenced his worldview as it relates to education. During this time, Louis earned his master’s degree in Educational Leadership from Nova Southeastern University.

Louis was recently appointed Director of Admissions, Recruitment and the Wisconsin Summer Business Program within the School of Business at the University of Wisconsin at Madison. Previous to this position, he served as the Assistant Director of Multicultural Programs and Services (MPAS) at Florida International University (FIU) and as an Academic Success Coach at Florida State University. As a higher education practitioner, Louis’ passion lies in exploring how we can best provide access and success pathways for first-generation college students. In 2013, his presentation entitled Help Me Help You! Deconstructing the Help-Seeking Behavior of First-Generation Minority College Students was recognized as Best of Region at the NACADA Region 4 Conference. Later that year, his article entitled “Choosing Success: A Paradigm for Empowering First-Generation College Students” was published in About Campus, a publication of the American College Personnel Association (ACPA).

Going forward, Louis aspires to continue making a positive contribution as it relates to supporting the success of underrepresented student populations.