

THE EFFECT OF SELF-EFFICACY ON FIRST-GENERATION
AFRICAN AMERICAN COLLEGE STUDENTS

by

Benita Lynn Cabbler

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

As students transition into the college, some matriculate with more family, social, and academic support structures than others. Students who are the first in their families to attend college may not have the support necessary to help them succeed, influencing a need for more college resources to assist students with becoming academically successful. The purpose of this quantitative causal-comparative study was to determine if there were significant differences in perceived self-efficacy between first generation and non-first generation African American college students. The independent variable was African American college student status: first-generation African American college students and non-first-generation African American college students. The dependent variables were perceived collective self-efficacy, perceived social self-efficacy, perceived academic self-efficacy, and perceived roommate self-efficacy. The College Self-Efficacy Inventory (CSEI), which measures collective self-efficacy and the three psychosocial factors: academic self-efficacy, roommate self-efficacy, and social self-efficacy, was used in this study. There was no significant difference in the collective self-efficacy of first-generation African American college students and non-first-generation African American college students as it relates to college self-efficacy. Additionally, there was no significant difference between the two groups in the subscales of: academic self-efficacy, social self-efficacy, and roommate self-efficacy. Given that self-efficacy is malleable, the results of this casual comparative study can be used by colleges to evaluate current programs and design new programs that meet the needs for first-generation students to be academically successful.

Keywords: first-generation African American college student, first-generation student, self-efficacy, College Self-Efficacy Inventory

Dedication

I would like to dedicate my work to those who have shared this academic journey with me. To my heavenly Angel, my mother, Barbara Patrick, thank you for showing me how to be the mom that I am today. To my spouse, my forever best friend, Ron, thank you being the best husband a woman could have. Thank you for the many times you took care of the family responsibilities, so that I could hide in a room to work on my paper. Your words of encouragement, motivation, and support helped me to persevere through this journey. Words cannot express how much I love you or how thankful I am for you. To my beautiful children, Amber, Terrill, and Gabby you were with me when I started this journey. Know that it is never too late to accomplish a task. Finish whatever you start, no matter how long it takes. A special thank you to my son, Terrill for the many phone calls and text messages checking on how I was progressing on the paper. God has blessed me with a phenomenal family. I cannot quantify how much love I have for all of you!

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CHAPTER ONE: INTRODUCTION

Overview

This dissertation will examine the role of self-efficacy on first-generation African American college students in the Southeastern United States. This chapter presents the background to self-efficacy of first-generation African American college students and highlights the problem, purpose, significance, questions, and definitions that frame and inform the current research.

Background

The college population has become diverse with students who vary in race, ethnicity, language, and socioeconomic background. Of this population, first-generation college students, defined as students who have no parent or guardian with an earned a baccalaureate degree (Choy, 2001; McGee, 2015; Pike & Kuh, 2005; Soria & Stebleton, 2012), have low college retention and graduation rates are a population of interest for researchers (Bastedo, Altbach, & Gumport, 2016; DeAngelo, Franke, Hurtado, Pryor, & Tran, 2011; Saenz, Hurtado, Barrera, Wolf, & Yeung, 2007; Choy, 2001). First-generation students must rely on more resources to assist them in preparing and managing college life compared to non-first-generation students who may have parental guidance, support, and knowledge (Mayhew et al., 2016; Shumaker & Wood, 2016; Padgett, Johnson, & Pascarella, 2012).

First-generation students have been identified as being intellectually, socially, and academically less engaged in school (Davis, 2010; Peralta & Klonowski, 2017; Engle & Tinto, 2008; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). In addition, Flury (2007) claimed that first-generation college students are not prepared for college life, lacking self-esteem and self-efficacy, family and financial support, all of which are indicators for academic success.

Research has suggested that colleges develop programs to help first-generation students to academically and socially adjust to college (Gabriel, 2018; Shumaker & Wood, 2016). Davis (2010) recommends first-generation student programs provide information on what first-generation college students should expect from college life and how to be academically successful. Before colleges create first-generation student programs, colleges must be informed on the challenges and expectations of the first-generation college student.

First-generation college students struggle with transitioning to college and staying in college until degree completion. Early research paired the retention rates of first-generation college students with parental involvement and parental education levels (Bui & Rush, 2016; Butt & Musthta, 2016; Mitchall & Jaeger, 2018; Perna & Titus, 2005; Terenzini et al., 1996). First-generation college students are less knowledgeable about making important decisions that pertain to college life and involvement. However, Pratt & Skaggs (1989) coupled first-generation college student retention rates to their academic and social struggles. Richardson and Skinner (1992) found that first-generation college students have a deficit in study and time management skills, which exist as precursors to academic success.

Numerous studies have shown that first-generation students have difficulty transitioning to college (Alvarado, Spataru & Woodbury, 2017; Cataldi, Bennett & Chen, 2018). First-generation students are less apt to immerse themselves in college life because they are more focused on getting a degree than they are with the social aspect of college (Moschetti & Hudley, 2015; D'Amico & Dika, 2013; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Tinto (1993) stated that in addition to academics, college is also about personal growth and having social experiences. Student retention has been associated with interactions of administrators, faculty, advisors, and peers (Kenner & Weinerman, 2011). The interactions

students have with academic and support services foster the student's feeling of being connected to the campus. Therefore, researchers and practitioners alike stress the importance of examining services provided on college campuses as an essential pathway to meet the needs of first-generation students, to improve their satisfaction, enhance the college experience, and help these students persist to degree completion (Falcon, 2015; Forbus, Newbold, & Mehta, 2011). These services, a critical component of the intellectual and social integration of college students that Tinto (2012) and others (Mayhew et al., 2016) have found to significantly influence student success. To this end, the self-efficacy research of Albert Bandura (1997, 2012; 2018) can help further explain the academic struggles (and improve the outcomes) of first-generation African American students.

One factor that plays a significant role in a student being academically successful is self-efficacy. Bandura (1977, 1997) coined the term self-efficacy to mean one's belief in his or her ability to perform specific skills. Self-efficacy is associated with a person's belief about the achievement, cognitive processing, motivation, and self-worth. People who have self-efficacy are likely to be self-regulating, strategic, and perceive themselves to be capable. People who doubt their ability to achieve an outcome are less likely to challenge themselves (Bandura, 1977, 1997). Self-efficacious people tend to assign responsibility for outcomes to themselves, while people who lack self-efficacy generally look to others and outside circumstances to explain their lack of success; people with high self-efficacy tend to have an internal versus external locus of control (Weiten, Dunn, & Hammer, 2015).

The self-efficacy theory identifies four sources that contribute to the development of one's self-efficacy: mastery experiences, vicarious experiences, social persuasion, and then emotional and physiological states (Bandura, 1993). Mastery experiences are the most

influential source for self-efficacy (Bandura, 1977, 1997). One's success can increase self-efficacy; conversely, failure to meet a goal can decrease self-efficacy. Self-efficacy is affected by witnessing the success of others (Bandura, 1997). People who are perceived as being comparable increase a person's confidence that success is possible. Vicarious experiences can have an adverse effect if a person fails before a sense of self-efficacy is developed (Bandura, 1997). Self-efficacy is stimulated by social models-instructors, family, peers who persuade the person they can complete a task (Bandura, 1997). Self-efficacy usually is increased or further developed if social persuasion is from a person who is knowledgeable, and the information is reliable. An individual's physiological and emotional states contribute to self-efficacy (Bandura, 1997). People with low self-efficacy are more likely to experience anxiety, stress, reactions, and tension. People with high self-efficacy may be stimulated when a challenging goal is present (Usher & Pajares, 2006). Persisting and showing resilience in the face of challenges has implications beyond just success in school. Developing self-efficacy extends into social and economic gains as well (Bandura, 2018).

First-generation college students who do not complete a degree program affect a college's attrition rate, which, in turn, hurts the economy. Uneducated and unskilled workers cause unemployment rates to increase, thus affecting the ability of the United States to be competitive in the 21st-century knowledge economy (Carnevale & Desrochers, 2004; Friedman, 2016; Hanson, Liu, McIntosh, 2017; Selingo, 2017). Research continues to predict that an increasing percentage of jobs will require some form of postsecondary education (Carnevale, Smith, & Strohl, 2013; McGee, 2015). Currently, less than half of the labor force has an associate degree, which means the United States does not have enough skilled workers (Hanson, Liu, McIntosh, 2017). Therefore, it is essential for colleges to institute programs for first-

generation college students that will help to improve college retention; this research hypothesizes that focusing on self-efficacy will help achieve this outcome.

Problem Statement

Research has shown that fewer first-generation college students continue in or graduate from college as compared to non-first-generation college students. First-generation college students face multiple socio-demographic risk factors: low household income, single-parent households, being academically challenged for college-level work, part-time employment, low self-esteem, thus making it even more challenging to succeed in college (Gibbons, Rhinehart, & Hardin, 2019; Padgett, Johnson, and Pascarella, 2012). Over the past few decades, researchers have carried out several studies on socio-demographic variables and their effects on academic achievement.

There is an abundance of research that connects self-efficacy to academic achievement (Hayashi, 2014; Wood, Newman, & Harris, 2015; Liao, Edlin, & Ferdenzi, 2014). For example, Liao, Edlin, & Ferdenzi (2014) studied 310 students at an urban community college. Their research examined the effect of self-efficacy and motivation on academic achievement of non-first-generation community college students taking curricular classes in social science. In another study, the effect of self-efficacy on academic success achievement was researched on first-generation college sophomore students (Vuong, Brown-Weltz, & Tracz, 2010).

As the introductory review of current research illustrates, to date, there is very little research that has examined the influence of self-efficacy on first-generation college students on college students' academic achievement. Shepherd's (2016) recent study is a notable exception; however, she examined gender differences between first-generation and other students, not racial differences. Given the importance of self-efficacy in positive college outcomes—both social and

academic—this paucity of research is conspicuous and warrants further investigation. The problem is that the first-generation population is steadily increasing in college, but the degree completion rate is declining.

Purpose Statement

The purpose of this causal-comparative, ex post facto study is to determine whether self-efficacy affects the academic success of first-generation, African American college students. The sample will consist of full-time college students who are 18 years old living in Southeastern United States. The sample will comprise of 125 first-generation African American college students. The independent variable will be the African American college students: first-generation African American college student or non-first-generation African American college student. The dependent variables are perceived collective self-efficacy, perceived social efficacy, perceived academic efficacy, and perceived roommate efficacy. The purpose of using a causal-comparative research design is to determine if there is a difference between the independent and dependent variables, holding all other predictors constant.

Significance of the Study

This study will be significant as it contributes to understanding the self-efficacy of first-generation African American college students, a conspicuously understudied relationship within higher education. The study will add to the existing body of research that posits self-efficacy as a significant predictor of academic achievement. Since self-efficacy has an impact on academic achievement (Honicke & Broadbent, 2016; Richardson, Abram, Bond, 2012; Robbins, Lauver, Le, David, & Langley, 2004), the present research would be beneficial to students, faculty members, and educational leaders. Students would benefit from knowing how to increase their self-efficacy by making choices and developing habits that lead to academic success (Uchida,

Michael, & Mori, 2018). Moreover, the study may encourage faculty members to be aware of how teaching methods, teaching strategies, the classroom climate, and social interactions with students influence African American students' self-efficacy (Schaderman & Thompson, 2016). Finally, college administrators' control, at least to some degree, strategic choices about how limited budget dollars are to be spent at their institutions. Given the limited resources at all institutions of higher education making evidence-based decisions are required if colleges and universities are to improve student outcomes (Domenench-Betoret, Abellan-Rosello, Gomez-Artiga, 2017; Safaria, 2013). Results of the study such as this one help build a body of knowledge that leaders can use to make informed decisions about how best to help first-generation African American students.

Colleges are perplexed over how to increase the retention rate of first-generation students. To increase the retention rate of first-generation students, colleges have incorporated programs and increased student services (academic advising, career counseling, and education planning) to increase the first-generation student retention rate (Nevarez & Wood, 2010). The research would assist colleges in understanding another element that may need to be addressed in helping first-generation African American college students be academically successful thus increasing the retention rate.

Research Questions

The research questions for this study are the following:

RQ1: Does a difference exist between the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students as measured by the College Self-Efficacy Inventory?

RQ2: Does a statistically significant difference exist between the perceived social efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

RQ3: Does a statistically significant difference exist between the perceived academic efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

RQ4: Does a statistically significant difference exist between the perceived roommate efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

Definitions

This section will provide definitions for key terms related to this study.

First-generation college student is defined as students who have no parent or guardian with an earned a baccalaureate degree (Bostic, 2013; Choy, 2001; Pike & Kuh, 2005; Soria & Stebleton, 2012).

Race is defined as the biological distinctions, phenotypes, and cultural characteristics that are believed to be the basis for the creation of racial groups (Clair & Denis, 2015).

Retention is defined as a measure of the number of students who persist in their studies from one year to the next at a post-secondary institution. In most persistence research, the term “retention” is used interchangeably with the term “persistence.” However, specifically, retention is an institutional measure while persistence is a student measure (Jensen, 2011).

Self-efficacy is defined as a person’s belief that he or she can perform a task is correlated with achievement-related behaviors, such as cognitive processing, achievement performance, motivation, self-worth, and choice of activities (Bandura, 1993, 1997, 2012).

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter will examine how the theoretical framework, previous research, and related articles support the need for this quantitative study. The review of literature will present current research on self-efficacy and first-generation African American college students to help gain an understanding of the impact of self-efficacy on first-generation African American college students and college retention.

Theoretical Framework

Social Cognitive Theory

The social cognitive theory is the primary theoretical framework for self-efficacy. The social cognitive theory is the belief that people are active participants and shapers of the environment, and their behaviors, thoughts, and emotions are brought about by self-reflection and regulation (Bandura, 1997). In the social cognitive theory, self-reflection is identified as a human capability and a type of self-reference thinking. It explains how people judge and modify their thoughts and behavior (Bandura, 1997, p.3). In the social cognitive learning theory, people must develop skills in controlling the motivational, affective, and social determinants of intellectual functioning (Bandura, Barbaranelli, Caprara, Pastorelli, 1996). Learning is identified as being an active, cognitive, mediated, and self-regulated process (Bandura, 1997; Pajares & Kranzler, 1995; Schunk, 1995; Zimmerman 2000)

Bandura believed that humans possess the necessary capabilities: symbolizing capability, forethought capability, vicarious learning capability, self-regulatory mechanisms capability, and self-reflective capability (Bandura, 1986). Through symbolization, humans can gain meaning from the environment, use their cognitive ability to support forethought capability, gain new

knowledge through reflection, and communicate with others (Bandura, 1986). Symbolization provides structure, meaning, continuity, and the ability for people to store information needed for future behaviors (Bandura, 1986). During the forethought process, people plan, set goals, and challenge themselves while considering the consequences of their actions (Bandura, 1986).

Vicarious learning permits people to learn from other individuals through a trial-and-error process. It reduces the likeliness of a mistake and provides a guide for future events through the process of attention, retention, production, and motivation (Bandura, 1986). Attention occurs when one individual observes the behavior of another person and retains it to memory.

Production occurs when the person engages in the retained behavior. If the person experiences success, they are motivated to adopt the behavior and repeat it in the future. People have self-regulatory mechanisms that allow actions and behavior to be self-regulated through self-observation, choices, and attributions, and the behavior choices made during the self-regulatory process. Bandura (1986) emphasized self-reflection to be the “most human” capability that allows a person to identify their experiences, explore their beliefs, participate in self-evaluation, and change any behaviors.

The critical element of the social learning theory is self-efficacy, which affects a student’s motivation and learning (Aydin, 2015). The social learning theory supports the development and concept of Bandura’s self-efficacy theory, which formulates the foundation of this quantitative study (Bandura, 1997).

Self-Efficacy Theory

Bandura (1977) postulated the term self-efficacy to mean one’s belief in his or her ability to perform specific skills. Bandura (1997) defined self-efficacy as exercising control over one’s life; an individual can increase the probability of desirable outcomes for his/her actions while

decreasing the likelihood of undesirable outcomes. He further explains self-efficacy to be affected by a perception of an outcome, thus affecting a person's behaviors. Self-efficacy is associated with a person's belief for achievement, cognitive processing, motivation, and self-worth. Self-efficacy affects task persistence, motivation, resilience, and achievements (Bong, 2001; Bouffard-Bouchard, 1990; Choi, 2005; Coutinho, 2008; Finney & Schraw, 2003; Pajares, 1996, Zimmerman, 2000). However, the motivational constructs' self-esteem, locus of control, outcome expectations, and self-concept should not be confused with self-efficacy. Schunk & Pajares (2009) note that the motivational constructs have relations to self-efficacy to some degree. However, motivational constructs cannot be used as a determinant of academic achievement, while self-efficacy can be used as a determinant of academic success. Self-efficacy is linked to maintaining an effort, formulating a plan of action, and making decisions (Bandura, 1986). An individual's self-efficacy motivates the choices they make and the actions they take (Pajares & Schunk, 2001). People are more likely to participate in tasks they feel confident in and avoid activities where they may potentially fail (Vuong, Brown, & Tracz, 2010).

Self-efficacy is based on a person's perceived capability depending on the situation (Lent, Brown, & Gore 1997). Self-efficacy can predict a person's performance regardless of how easy or difficult the task, indicating skill and self-efficacy are necessary to perform a task (Bandura, 1977, 1986, 1989). People who have self-efficacy are likely to be self-regulating and strategic and perceive themselves to be capable, thus exerting considerable effort and persisting longer in a task. Self-efficacious people tend to blame outcomes on themselves, while people who lack self-efficacy blame outcomes on others.

Self-efficacy beliefs differ from outcome expectations, self-concept, and perceived control (Zimmerman, 2000). Outcome expectations were measured in a study by Shell, Murphy,

and Bruning (1989). Outcome expectations are defined by a person's expectancy toward employment, social and family life, education, and citizenship. Self-concept is defined as a person's perception of oneself and one's self-esteem, reaction to self-perception. Perceived control refers to general expectations of whether internal behavior or external forces determine the outcomes. DeFreitas (2012) conducted a study with 298 students from different backgrounds on their beliefs about outcome expectations and academic achievement. African American students had lower expectations of their performance but performed higher than their expectations as opposed to Caucasian students who held high expectations and performed academically well. The study concluded that there was no correlation between outcome, self-efficacy, and academic achievement. A correlational study conducted by Choi (2005) looked at the variables of self-efficacy, self-concept, and academic performance. The study contained 230 undergraduate students, 129 females, 101 males from a Southeastern University. The subjects were administered three self-efficacy and two self-concept scales, and their final semester grade was recorded. Through multiple regression analysis and correlation, the results concluded that self-efficacy and self-concept have a relationship and were also predictors of academic success.

The self-efficacy theory identifies four primary sources of self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological (Bandura, 1986; Phan, 2012; Usher & Pajares, 2006, 2009). Researchers focused on the differences of the four primary sources of self-efficacy and found mastery experiences, vicarious experiences, and verbal persuasion have the potential to positively or negatively influence a person's belief in their ability to be successful (Bandura, 1977; Schunk & Mullen, 2012; Schunk & Pajares, 2009). First, one's success or failures are affected by prior experiences. People with this level of self-efficacy correlate task with previous experiences. Once people know they have what it takes to succeed,

setbacks are not detrimental. Second, if one observes a peer who has succeeded, the mindset of the observer is influenced to think the goal is obtainable. The third area requires people to put forth more effort to succeed; however, persuasion may also work negatively against a person's self-efficacy. If the person has been led to believe they do not possess specific skills, disbelief in obtaining a goal becomes realistic. The fourth area deals with the physiological state that can affect a person's emotional state during a stressful situation. The physiological state is dependent on how a person is perceived and interpreted. Henceforth, self-efficacy should be considered as a contributing factor of a student's academic performance, social integration, ability to manage stress, and ability to adjust to college (Bandura, 1997; Brady-Amoon & Fuertes, 2011; DeFretias & Bravo, 2012; Gaylon, Blondin, Yaw, Nalls, & Williams, 2012; Majer, 2009; Ramos-Sanchez & Nichols, 2007; Vuong, Brown, -Welty, Tracz, 2010).

Self-Efficacy and Mastery Experiences

Mastery experiences are the most influential in creating self-efficacy, producing two possible outcomes: success or failure (Bandura, 1997). It is the most influential source to determine a student's competence using past successful performances (Fong & Krause, 2014; Garriott, Flores, Prabhakar, Mazzotta, Liskov & Shapiro, 2014). If a failure occurs early in the learning experience, it can be a determinant of future successes unless it is related to an internal-unstable factor, such as lack of effort (Alderman, 1999; Zientek, Fong & Phelps, 2019). As people have successful experiences, their expectation of success increases, while failures can reduce self-efficacy. Their perception of being successful develops over time as a person achieves success. The person will develop "perceived capabilities," which causes them to believe success is related to an experience (Schunk & Mullen, 2012). Schunk and Pajares (2009) determined mastery experiences have a more significant impact on self-efficacy compared to

social experiences. Similarly, Bandura's (1977) description of self-efficacy states the result of a mastery experience can have a positive or negative impact on a person's resilience. The belief of success or failure is more influential than the experience (Bandura, 1977; Chemers, Hu, & Garcia, 2001; Schunk & Mullen, 2012; Schunk & Pajares, 2009). Parents are the first source for creating a child's efficacious beliefs by introducing children to challenging activities that stimulate autonomy. Research has shown that parents who stimulate early childhood experiences help to build a child's self-efficacy (Vukovic, Roberts, Green, & Wright, 2013).

The success of a mastery experience affects seven factors: preconceptions of ability; perceived difficulty of tasks, degree of effort exerted, the way events are cognitively processed, the amount of external aid received, contextual conditions, temporal patterns of successes, and failures (Bandura, 1986). First, preconceptions of ability relate to earning good grades, which increases self-efficacy beliefs, opposed to a failure lowers self-efficacy, especially if the failure is not due to lack of effort or an adverse external condition. Second, the difficult tasks that are mastered increase self-efficacy, while repeated tasks have a neutral effect on self-efficacy. Third, tasks that require an extensive amount of effort are not perceived as self-efficacious; success contributes to effort rather than ability. Fourth, personal self-efficacy is affected when a person thinks about recent successes or failures. A person's perceived ability is enhanced by focusing on past accomplishments and reduced by past failures. Fifth, people who continuously fail but improve their performance are increasing their self-efficacy beliefs as opposed to those who succeed but feel as though they cannot do any better will not invest additional time and effort and are less likely to increase their self-efficacy beliefs. Sixth, the conditions under which one is expected to perform will affect success or failure; for example, the self-efficacy of a student who performed under favorable conditions will be stronger opposed to the student who

performed under adverse conditions. Lastly, the reconstruction of memory and cognitive organization affects self-efficacy beliefs (Bandura, 1986).

Self-Efficacy and Vicarious Experiences

Vicarious experiences form from witnessing other social or verbal situations and then comparing their abilities to those of others (Bandura, 1986, 1977, 1989). Vicarious experiences are the second most effective way for people to build self-efficacy. These experiences mimic the “lead by example” phenomenon where people develop their self-beliefs by observing others (Wood & Bandura, 1989, p. 364). For this reason, vicarious experiences are likely to change due to subsequent experiences (Bandura, 1977; Schunk & Pajares, 2009). The influence of vicarious experiences is dependent upon the student’s self-efficacy level (Bandura, 1994; Bandura & Wood, 1989). Vicarious experiences are considered to have the most direct effect on a person’s self-efficacy (Gist & Mitchell, 1992; Schunk & Pajares, 2009). These experiences can stimulate a positive self-efficacy, which will affect a person’s belief to succeed in unfamiliar situations. If the person has a low self-efficacy, vicarious experience may decrease a person’s confidence to achieve, causing them to focus on past experience. Some factors may make students more sensitive to the influence of a vicarious experience such as (a) uncertainty about one’s abilities; (b) lack of prior experience with a subject; and (c) the standards by which the skill is assessed (Bandura, 1997).

People with low self-efficacy differ from people with high self-efficacy in four psychological processes: cognition, selection, motivation, and affect (Bandura, 1994). The cognitive process allows those with a high self-efficacy level to visualize successful scenarios; in comparison to those with low self-efficacy will imagine scenarios when a required task was not successful. In the selection process, students with high self-efficacy are open to trying new tasks

despite the probability of failure as opposed to those with a low self-efficacy are less likely to try new ventures that they were not successful with in the past (Bandura, 1994). Motivation is greater in students with a high level of self-efficacy, thus causing the student to exert considerable effort and persistence during a problematic situation (Bandura & Wood, 1989).

Lastly, people with higher self-efficacy can cope in threatening situations compared to those with low self-efficacy who will rely on their coping deficiencies, which could potentially lead to anxiety (Bandura & Wood, 1989). For a person's self-efficacy to be affected by a vicarious experience, the observer must view the person as an equal. If the person does not see the observant as an equal, success or failure will not influence the person (Schunk & Pajares, 2009). However, a vicarious experience will affect people differently depending on whether they have a high or low self-efficacy.

Self-Efficacy and Verbal Persuasion

Verbal persuasion is perceived to be the third most effective way to develop self-efficacy (Chowdhury, Endres, & Lanis, 2002) and increase people's beliefs in their self-efficacy (Bandura, 1986). As people communicate with one another, the message may have a positive or negative influence on self-efficacy (Bandura, 1977; Schunk & Pajares, 2009). Verbal persuasion has a weak impact on self-efficacy and is probable to be dominated by preceding or succeeding performances (Bandura, 1977; Bandura 1997; Schunk & Mullen, 2012; Schunk & Pajares, 2009). A notable problem with verbal persuasion is the quality of the persuasion itself. Schunk and Pajares (2009) state:

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).

Bandura (1986) stated for verbal persuasion to contribute to success, the praise must be realistic. Verbal persuasion may be effective in convincing people that have the ability; however, it cannot be used alone. Additional supports must accompany verbal persuasion, and repeated failures can cause a person's self-efficacy to regress. Alderman (1999) found negative comments are more effective at lowering self-efficacy than positive comments are in increasing self-efficacy (Bandura, 1977; Schunk & Pajares, 2009).

In life, it is common for people to receive positive and negative messages differently. Positive verbal persuasive messages can increase an individual's self-efficacy (Dortch, 2016). Verbal communication and evaluative feedback are useful when the information is well informed and reliable (van Dinther, Dochy, & Segers, 2011). Along with vicarious experiences, verbal persuasion is dominated by previous performances (Bandura, 1977, 1997; Pajares, 2009; Schunk & Mullen, 2012).

Self-Efficacy and Physiological State

A person's physiological state can affect their self-efficacy beliefs, such as anxiety, fear, fatigue, or pain (Bandura, 1997), a learner's stress, emotions, and interpretations (Zientek, Fong, Phelps 2019). Notably, anxiety can interfere with a student's academic performance. A student with test anxiety may be an active participant in class and study outside of class but perform poorly on tests. Test anxiety is less predictive of student achievement than self-efficacy (Chemers et al., 2001; Zajacova, Lynch, & Espenshade, 2005). The physiological state is the weakest way to judge a person's capability, strength, and vulnerability (Bandura, 1986; Phan & Ngu, 2016).

Self-Efficacy and Academics

There is an abundance of research that has established a relationship between self-efficacy to academic performance (Chemers, Hu, & Garcia, 2001; Gannouni & Ramboarison-Lailao, 2018; Honicke & Broadbent, 2016; Meral, Colak, & Zereyak, 2012; Pajares, 1996; Phan & Ngu, 2016; Walsh & Robinson, 2016). A person's academic self-efficacy is associated with positive academic behaviors and outcomes (Brady-Amoon & Fuertes, 2011; Gaylon et al., 2012; Lent, Brown, & Gore, 1997; MacPhee, Farro, & Canetto, 2013). This same relationship between self-efficacy and academic achievement exists with first-generation students (Silver, Smith, & Greene, 2001). First-generation students face various obstacles that may affect their belief to be academically successful (Gibbons & Borders, 2010). A first-generation students' belief about their academic self-efficacy will affect the amount of effort exerted on academics, the ability to persevere through life's obstacles, and the effect of being a first-generation student (Chemers, Hu, & Garcia, 2001).

In 2006, Paul Gore conducted a hierarchical linear regression analysis to determine the effect of ACT composite scores, College Self-Efficacy Inventory, and Academic Self-Confidence would predict grade point average (GPA) (Wood, Newman, & Harris, 2015). The study consisted of 629 first-year college students (335 males, 294 females) from a Midwestern University who enrolled in a freshman orientation course. Subjects completed assessments for achievement, college self-efficacy, and academic self-confidence within the first two weeks of class. The assessment was repeated two weeks before the end of the course, along with obtaining the information on semester GPA and enrollment status. The self-efficacy inventory provided the best results of being a predictor of academic success.

In 2009, John Majer studied how academic self-efficacy and sociodemographic status affect the academic success of first-generation students. Economic status can be used to predict academic success. In the diverse population, it was concluded there is a significant relationship between self-efficacy and cumulative grade point averages (Thompson & Verdino, 2019). Lohfink and Paulsen (2005) found race, gender, and income related to student's persisting. It is perceived that race is a small indicator as to why first-generation students complete their degree in comparison to non-first-generation students (Pratt, Harwood, Cavazos, & Ditzfeld, 2019).

In a meta-analysis of 109 studies, the nine constructs of achievement motivation, academic goals, institutional commitment, perceived social support, social involvement, academic self-efficacy, general self-concept, academic-related skills, and contextual influences were used to determine if there was a correlation between GPA (academic achievement) and persistence. The study concluded GPA (academic achievement), and self-efficacy had the strongest link (van Rooji, Jansen, & van de Grift, 2018).

Vuong, Brown-Welty, and Tracz (2010) conducted a study at a large university on how self-efficacy affected the academic success of first-generation and non-first-generation college sophomore students. There was a significant difference between first-generation and non-first-generation students in the academic persistence of completing the current term and staying enrolled. Several research studies have claimed that first-generation minority students have lower self-efficacy than non-minority, non-first-generation students; however, the findings of this study did not support that conclusion.

Related Literature

First-Generation College Readiness

First-generation students are a population group of concern for universities (Pike & Kuh, 2005). Pitre and Pitre (2009) identified the academic and practical knowledge needed to be successful in college to be academic readiness. First-generation students are less likely to be prepared for college due to attending low rigor high schools that lack up to date academic counseling and college preparatory coursework (Gamoran & An, 2016; Palardy, 2013; Pitre, 2009). Rigorous high school coursework decreases the persistence gap between first-generation and continuing generation students. A student's high school GPA, course work, and standardized test scores are indicators of college readiness. The high school course offerings and GPA measure content knowledge while high school GPA and standardized test scores measure content knowledge (DeAngelo and Franke, 2016). The disparity continues to increase between course offerings and race, socioeconomic status, and first-generation status, which increases the achievement gap on the college entrance exams. The National Center for Education Statistics report highlights first-generation students have a lower high school GPA and SAT scores compared to their peers (Atherton, 2014; Katreovich & Aruguete, 2017; Redford & Hoyer, 2017). Lower GPA averages and lower SAT scores cause first-generation students to feel inadequate, which can cause stress and anxiety and influence their decision to enter college (Becker, Schelbe, Romano, & Spineli, 2017). Compared to non-first-generation peers, first-generation students begin college with a lower self-efficacy indicating they are less prepared for college.

Several research studies validate first-generation students are not academically prepared for college (Atherton, 2014; Garrriott, Hudyma & Keene, 2015; Melzer & Grant, 2016; Perna, 2015; Petty, 2014; Stebleton & Soria, 2013); most notably, they are less academically prepared

with lower reading, math, and critical thinking skills compared to non-first-generation students (Che, 2005; D'Amico & Dika, 2013; Inkelas, Daver, Vogt, & Leonard, 2007). In a study conducted by Elliott (2014), the academic self-efficacy of first-generation students increased due to passing the course; yet they received lower grades compared to continuing non-first-generation students. The GPA of first-generation students did not increase opposed the non-first-generation students whose GPA increased. First-generation students cannot connect lower GPAs and lower test scores as an indicator of college success; first-generation students were surprised about the rigor of college academics. Moreover, Williams and Ferrari (2015) found that sense of community was lower for first-generation and first-citizen students than for those students who were non-immigrants and had college-educated parents.

The notion of a sense of community has its roots in the research related to social and academic capital that researchers have long tried to emphasize in scholarship on college readiness and success. As Garriottt, Hudma, Keene, and Santiago (2015) revealed in their research on students whose parents and guardians had not achieved a bachelor's degree, the following were all lower in those first-generation students than in their non-first-generation peers: academic goal pursuits, academic satisfaction, collegiate outcome expectations, college self-efficacy, intrinsic motivation, and perceived importance of college. Akiko (2019) and Schwartz et al. (2018) confirm that social, academic, and human capital skills matter in college students' academic behaviors that lead to success and retention. College readiness, then, includes those academic behaviors that students learn from parents or guardians in terms of how to navigate college successfully (Seidman, 2018) but also those practices, habits, behaviors, and activities that students intentionally engage in and that colleges provide once students matriculate to an institution of higher education (Seidman, 2018; Schwartz et al., 2017)

First-generation African American students encounter many of the same challenges as other first-generation students, such as more challenges gaining access to higher education. Despite the barriers first-generation students must overcome, they enroll in college but have difficulty persisting and earning a degree (Horn & Nuñez 2000; Warburton, Bugarin, & Nuñez 2001).

First-Generation African American College Students

The population of first-generation African American college students is one that has steadily increased across college campuses. In 2012, the first-generation African American represented 14% of the population, while 11% represented non-first -generation African Americans (Redford & Hoyer, 2017). Currently, the first-generation student comprises 30% - 50% of the United States college population. It is estimated that by 2050, 60% of the U.S. population will be minorities, and a majority of students enrolled in higher education institutions will be students of color (Hobbs & Stoops, 2002). First-generation college students are identified as having low levels of self-confidence in their academic preparation of college; in addition, lower expectations in college GPA, degree attainment, and academic awareness which validates the observation that first-generation students perform lower academically (Covarrubias & Johnson, 2018; Conger, Conger, & Martin, 2010; Haktanir et al., 2018). First-generation students consistently obtain lower GPAs in the first semester and demonstrate higher attrition rates by the end of their freshman year (Douglas & Attewell, 2014; Gershenfield, Hood & Zhan, 2016; Ismail et. al. 2017).

A large body of research has shown first-generation African American college students face more challenges or barriers in college than their peers which can hinder a first-generation student from being academically successful (Chen & Carroll, 2005; Choy, 2001; Engle, 2007;

Jenkins, Belanger & Connally, 2013; Stebleton & Soria, 2013; Strayhorn, 2018). First-generation students face barriers that affect their ability to be successful, such as racial minority, income, and being academically prepared. However, first-generation students have the potential to be successful in college (Prospero, Russell & Vohra-Gupta, 2012; Stephens, Hamedani, & Destin, 2014) through participating in high school, college prep programs, college assimilation, familial support, and positive personal interactions (Sandoval-Lucero, Maes, & Klingsmith, 2014; Sommerfeld & Bowen, 2013; Wilkins, 2014).

The beginning of college success starts in high school. In a study, Barry, Hudley, Kelly, and Choi (2009) found a relationship between a student's level of high school involvement and college success. Building relationships with school professionals and peers who have educational goals can have a positive effect on first-generation students (Barry et al., 2009). Rendon (2006) classified a first-generation student's barriers into four categories: 1) student-related barriers, 2) institution-related barriers, 3) cultural barriers, and 4) out-of-class barriers.

Student-Related Barriers

Rendon (2006) identified student-related barriers pertains to family background, psychosocial factors, low socioeconomic status, apprehension about college material, poor academic preparation, and unfamiliarity with higher education. Although first-generation college students are more likely to begin their postsecondary education at a two-year institution, they are more likely to graduate if they started their education at a four-year institution (Bui, 2002). However, first-generation students still experience challenges at four-year institutions (Bui, 2002; Ishitani, 2003). They are more likely to drop out after their freshman year than non-first-generation students, and if they remain enrolled, they are less likely to persist and earn their degrees within five years (Lohfink and Paulsen, 2005; Pascarella et al., 2004)

First-generation students go to college motivated to change their social and financial situation as well as to be the first in their family to obtain higher education (Blackwell & Pinder, 2014). Due to the outside responsibilities, first-generation students are not able to embrace college life like a traditional student. They are likely to live off-campus and work a full-time job, which inhibits the first-generation student's ability to participate in campus activities (D'Amico & Dika, 2013; Engle & Tinto, 2008; Moschetti & Hudley, 2015). This inability to be able to participate in campus activities can affect a student's desire to return to college after their first year (Kuh, Cruce, Shoup, Kinsie, and Gonyea (2008). Several studies have found a lack of social integration as the reason the first-generation students drop out of college (Pascarella, Pierson, Wolniak, & Terenzini, 2004; Tinto, 1975, 1993). In addition to being less academically prepared for college, first-generation students have financial issues that may affect them from being academically successful and persisting through college. Many first-generation students come to college lacking financial support from their parents, forcing first-generation students to work while in college (D'Amico and Dika, 2013), which impedes a student's ability to participate in college activities. Due to a lack of knowledge about financial aid, first-generation college students take out more student loans and in higher amounts compared to non-first-generation students (Furquim, Glasener, Oster, McCall, DesJardins, 2017). Insufficient financial aid and resources are connected to attrition, which causes students to be more likely to leave college, decreasing their self-efficacy that they can afford college.

First-generation students are characterized as having low academic aspirations, which is an indication of a low self-efficacy (Jenkins, Belanger & Connally, 2013; Vuong, 2010). Students who have low self-efficacy will most likely have poor academic performance and fail (Vuong, 2010). Low self-efficacy leads to stress and depression, which can influence a student's

ability to do well academically (Jenkins, Belanger & Connally, 2013). Lazarus and Folkman (1986) define stress as a negative feeling that occurs when students are unable to deal with the demands of their environment (Lee & Wachholtz, 2016). First-generation students are susceptible to stress due to being in a new environment. College students experience stress from academics, fatigue, and interpersonal issues, in addition to having new responsibilities and an increased workload (Musabiq & Karimah, 2020). Students are exposed to external and internal determinants of stress. The external determinants are stressors that exist beyond one's control. For a first-generation college student, this includes financial problems due to having a part or full-time job to provide for their family and relationship issues that result due to a lack of family support while students are attending college (Irlbeck, Adams, Akers, Burris, & Jones, 2014). Internal determinants of stress come from within and determine how a student will approach things. For first-generation student internal determinants are the unrealistic expectations of the college experience (Irlbeck, Adams, Akers, Burris, & Jones, 2014). Students may experience stress when their unrealistic expectations of academic success are not met, and the student does not feel supported. In a study by Van Yperen and Hagedoorn (2008), first-year students were assessed for self-efficacy and stress. It was found that stress had a significant impact on their life which decreased the student's self-efficacy. Phinney & Haas (2003) conducted a study on first-generation ethnic minority first-year students. Students experience stress from having a job, lack of social supports, and academic pressure. First-generation students lacked a high self-efficacy in the ability to succeed, which caused some of the students to leave course work incomplete, thus eventually dropping classes or leaving college (Moschetti & Hudley, 2015).

As first-generation African American college students continue their academic journey, they face the same and potentially more barriers to education, similar to what they experienced in

high school. In comparison to continuing education peers, the disadvantages of first-generation African American students increase when they go to college. First-generation students are not prepared for the academic rigor of college, receive less family support and financial aid, and have lower expectations for educational success. Ethnic underrepresentation, low academic self-esteem, and difficulty adjusting to college can increase while in college (Stephens, Hamedani, & Destin, 2014).

First-generation students are more likely to persevere in college if they have a sense of belonging. Strayhorn (2012) defines a sense of belonging as social support on campus, feeling connected, the experience of feeling cared about, respected, accepted, valued, important to the campus community, peers, and faculty. Achievement and retention are the results of a student having a sense of belonging to a college campus. On a college campus, the support resources and people who provide support are contributors to first-generation students feeling a sense of belonging: learning communities (Cambridge-Williams, Winsler, Kitsantas, & Bernard, 2013) tutoring centers, student organizations (Strayhorn, 2012); faculty members and peers (Hausmann, Schofield, & Wood, 2007). Strayhorn (2012) reported that students who are involved in social and leadership activities on the campus improve their sense of belonging; however, students who work and have family responsibilities have difficulty participating in academic and social opportunities (Kezar, Walpole, & Perna, 2015), which hinders their ability to cultivate a sense of belonging in the college campus (Soria, Stebleton, & Huesman, 2013). The expectations of teaching faculty and peers who expect first-generation students to have academic knowledge and experiences may negatively affect the student's sense of belonging. A sense of belonging in the college campus for first-generation students plays a significant role in a student remaining at a college campus (Soria, Stebleton, & Huesman, 2013).

Institution – Related Barriers

Some students find it challenging to fit in the college setting. Researchers have further explored factors contributing to students' self-efficacy and found that along with socioeconomic status, support from immediate family caregivers, and perceived social class, involvement with the college and faculty has a significant impact on a student's perceived self-efficacy (DeFreitas & Bravo, 2012; Metheny & McWhirter, 2013; Thompson & Subich, 2011). Faculty-student interaction has a positive effect on college students in the areas of academic achievement, intellectual development, persistence, and satisfaction with the college experience.

Academic experiences refer to college preparedness and academic integration within the classroom environment (Adams, Meyers & Beidas, 2016). Research has shown that first-generation students benefit from classroom involvement, collaborative learning, and participation more than their non-first-generation peers (Soria & Stebleton, 2012; Wright, 2019). Academic integration is crucial for the success of first-generation students since they have a difficult time transitioning from high school to college.

Participating in support organizations, work-study jobs, and having friends on campus are ways students can integrate themselves on the college campus. Sommerfeld & Bowen (2013) found colleges that have students who integrate themselves on campus have higher college enrollment and retention. Campus integration promotes academic confidence and creates a sense of belonging, causing an increase in higher academic success rates (Sommerfeld & Bowen, 2013). Learning communities and multicultural learning communities can help first-generation students feel connected to college (Engle & Tinto, 1993; Fink & Hummel, 2015; Jehangir, 2010). The downside to these organizations is that first-generation students are only paired with other

first-generation students and not being integrated with the college community (Lowery-Hart & Pacheco, 2011).

Another relationship that can affect a student's sense of belonging is the relationship with faculty. Metheny and McWhirter (2013) found a positive correlation between students' self-efficacy and academic, social capital (i.e., connections to professors with power, resources, and opportunities for school governance). Positive interaction between first-generation students and faculty stimulates a first-generation college student's confidence in college (Bers & Schuetz, 2014), along with instructors who are accessible and helpful (Sandoval-Lucero, Maes, & Kilingsmith, 2014). First-generation students positively responded when faculty provided validation and praise, especially that which reinforces their competency to excel academically (Lohfink & Paulsen, 2005). Reid (2013) stated students who have positive and gratifying interactions with their instructors reported to have a higher level of confidence in their academic ability. Also, African American students who perceive their university as supportive tend to experience greater satisfaction and adjustment; they are also more likely to persist and earn a college degree (Boyraz, Horne, Owens & Armstrong, 2016). As such, first-generation students need more validation and support, particularly early in their college pursuits (Pike & Kuh, 2005). Without adequate support, first-generation students are at an increased risk of dropping out after their freshman year. Family support is frequently lacking for first-generation students; making supportive peer, faculty, and staff networks are especially important (Dennis et al.; Lohfink & Paulsen, 2005; Pascarella et al., 2004). Faculty members can be participants in this exchange by facilitating and encouraging a learning environment that provides positive reinforcement and support.

Cultural Barriers

Challenges first-generation students may encounter are lack of family support and financial problems, which may interfere with their ability to be successful in school (Blackwell & Pinder, 2014). Many low-income parents perceive college as being a place for “rich people.” First-generation students also experience unique stressors at home once they have entered college. They may begin to feel like outsiders at home as well as at school as they try to balance the cultural demands of two very different worlds (Korsmo, 2014).

Many parents may not be able to provide college-related advice due to their lack of related experience. Knutson (2014) studied whether a parent’s education level influences the academic self-efficacy of his or her college student. It was conclusive that first-generation college students had lower levels of academic self-efficacy than non-first-generation college students. First-generation students who have family support are more likely to be academically successful (Terenzini et al., 1996). First-generation students view college as an avenue for acquiring job skills and credentials (Wilkins, 2014) that can be used to help financially assist their family (Boden, 2011).

First-generation college students may experience a difference between their opportunities and the opportunities available to the non-college education family (Covarrubias & Fryberg, 2015). These differences may elicit feelings of confusion, anguish, isolation, estrangement, and guilt for first-generation college students. The stress of the relationships from non-collegial family and friends is often a characteristic for first-generation students from racial or ethnic backgrounds. If parents are unsupportive of their child’s academic pursuits, adverse outcomes could cause students to consider taking fewer credits or dropping out (Sparkman, Maulding, & Robert, 2012). Since the family did not go to college, this leaves the first-generation college

student to search for answers for typical questions asked by college students (Katreovich & Aruguete, 2017). When encouragement is provided, and the expectation of college attendance and degree attainment is given, positive outcomes are more likely (Dennis, Phinney, & Chuateco, 2005). Research has suggested that colleges form support programs that promote the development of peer networks for first-generation college students to help improve academic success. Unfortunately, the structure of the first college programs has not been beneficial due to the programs providing a lower quality model for the student.

Out-of-Class Barriers

A part of college life for a student is participating in campus activities and clubs. A first-generation student's academic and social integration into the college campus can affect their desire to persist in college (Tinto, 1975) as well as their intellectual and personal development (Mitchell, Gillon, Reason & Ryder, 2016). For a college student, academic integration is defined as the assimilation into academic areas of the college, and social integration is the assimilation into the social life of college (Katreovich & Aruguete, 2017).

Social integration for the first-generational college student is defined as an adaption into college life and student involvement, including building relationships with faculty, students, and peers (Adams, Meyers, Beidas, 2016; Katreovich & Aruguete, 2017; Tinto 1975). Even though first-generational students would benefit from being involved in campus life, they are less likely to engage in campus activities compared to non-generational students (Garriott, Hudyma, Keene & Santiago, 2015; Moschetti & Hudley, 2015). Being involved in campus activities contributes to the reason first-generation students are not satisfied with the campus environment, which increases the likelihood of the first-generation student departing from the college (Tinto, 1993; Williams & Ferrari, 2015).

Another factor that impacts academic success for first-generation students is campus engagement. In comparison to continuing generation students, first-generation college students benefit more from being involved in campus activities (Ryder, Reason, Mitchell, Gillon, & Hemer, 2016). This interaction can improve a student's critical thinking and writing skills, reasoning, motivation, and influence degree plans (Pascarella et al. 2004). However, due to the lack of support, first-generation students are hesitant to participate in on-campus activities (Walpole, 2003).

First-generation students are less likely to live on campus and engage in campus life, both of which are important in creating smooth transitions to college and increasing academic success (Pike & Kuh, 2005). For example, thirty-one percent of first-generation students choose to live off-campus during their first year of college, compared to 16% of their peers. Additionally, thirty-seven percent plan to work full-time while earning their degree as opposed to 25% of non-first-generation students (Higher Education Research Institution, 2005), thus making engagement in campus activities more challenging. If campus engagement is lacking, it may be more difficult for students to receive peer support, which can be instrumental in students' transitioning to college, especially for African Americans (Astin, 1975; Chen, Ingram, & Davis 2014; Tinto, 1993). Since parents of first-generation African American students may not be able to provide academic-related assistance due to lack of direct knowledge or experience, peers may be well-suited to provide these resources (Dennis et al., 2005). Peers help one another by providing insight into courses and recommending professors. They can also form study groups, share notes, and provide tips for success. However, the increased outside responsibilities, likelihood of full-time employment, and the tendency to live off-campus make campus engagement and peer

support less likely (Pascarella et al., 2004), thus increasing the risk for a problematic academic transition and potential to drop-out after the freshman year (Ishanti, 2003).

First-Generation Students vs. Non-First-Generation Students

First-generation students come to college with a significant disadvantage compared to non-first-generation students. First-generation students often lag behind non-first-generation students, and they are uncertain how to navigate the university system, thus making it less likely that they will seek support services when needed (Pascarella et al., 2004). One barrier to first-generation students seeking support services is that they perceive faculty and the university institution as being unsupportive (Pike & Kuh, 2005). According to Boyraz, Horne, & Owens (2016), African American students are hesitant to seek help from faculty for fear of being perceived as needing extra assistance due to their race. These feelings magnify when students feel underrepresented. Students reported feeling more supported in high school due to familiarity and similarity. Many African American students feel underprepared, causing feelings of aloneness and underrepresentation upon entering college (Boyraz, Horne, & Armstrong, 2016).

Goal Achievement & Persistence

As college students begin their academic journey, they set career goals for themselves. Experimental studies have shown that students need to set goals to increase academic achievement; it also helps first-generation with cognitive efficacy (Bandura & Schunk, 1981). Setting goals increases a person's cognitive and affective reaction to an outcome because goals outline the requirements for personal success.

Goal setting is believed to be a cognitive process that affects motivation (Schunk, 1989). Students may set a goal or be given a goal, thus creating a self-efficacy to develop. The desire

to make a commitment to attempt the goal occurs requires the student to participate in activities that will lead to achieving the goal. Goals can be motivational depending on the location of the goal: proximity, specificity, and difficulty. Proximal goals are those goals that are nearby, that can be judged on potential success or failure. Specific goals increase efficacy and motivation more than general goals. Challenging goals enhance self-efficacy because of the skills that are developed during the process (Schunk, 1989).

Goal setting can be affected by self-efficacy beliefs and motivation (Bandura, 2013). Research has focused on two types of goal orientation: learning and performance. Students who are pursuing learning goals are described as being self-regulating and self-determining. The learning goal student focuses on task and learning, effort links to success or failure. The learning goal student prefers a challenge, using strategies, makes positive self-statements, reports more positive affect and less negative affect, and accepts responsibility for success and failure. The performance goal student compares herself or himself to other students. Success and failure are linked to ability, and intelligence is a given trait. The characteristics of a performance goal student are participating in limited strategy opportunities, make negative comments relating to self, and attribute success to an unidentifiable factor. The personality of a performance goal student is likely to be adaptive if confidence is high and maladaptive if confidence is low (Bandura, 2013). In contrast to the goal setting student, some students may avoid work for being failure-avoidant or learned-helplessness students. Failure-avoidant students do not complete work because it is conceived as a threat to the self-worth. Learned-helplessness students do not do the work because they do not feel capable of doing the work. This type of student must find work to be challenging, stimulating, or satisfying (Domenench-Betoret, Abellan-Rosello, Gomez-Artiga, 2017).

A student's self-theories are influential in how students approach learning. Smilkstein (2003) describes learning as being about potential, not deficits. Dweck (2000) felt that students adopt achievement goals that are learning or performance oriented. Students with learning-oriented goals concentrate on being competent and increasing knowledge. They have implemented an "incremental theory," identifying that intelligence and ability are inconsistent and dependent on each other. A student who is learning-oriented recognizes that learning is hard work. The performance-oriented student focuses on obtaining favorable judgments while avoiding the negative ones. This type of student has accepted an "entity theory" where intelligence and ability are fixed; being good or not good is unchallengeable. This student puts forth little effort and expects quick results (Bodill and Roberts, 2013).

When students enter college, their goal is to acquire a degree. Throughout the college years, situations may occur that cause college students to get off track. However, despite what may happen in life, college students must persist in attaining a degree. The concept of continuing for first-generation college students can be a task due to the many challenges they face. First-generation students are more likely to leave a four-year university after the first year, less likely to stay enrolled in a four-year institution or earn a bachelor's degree after five years. Factors that affect a first-generation student's ability to persist are not being academically prepared, low academic self-esteem, racial under-representation, having children, working a part- or full-time job, delaying enrollment in college or not having a traditional high school diploma (Cataldi, Bennett, Chen, 2018; Stephens, Hamedani & Destin, 2014; Vaughan, Parra, Lalonde, 2014). It is not unusual for these students to enroll in college part-time and work more hours than their counterparts.

Despite the odds of what first-generation students face, some do persist and attain a

college degree. Self-efficacy determines how much effort a student will exert and the degree of persistence they will have in situations of failure. For students to persist through academic challenges and access the necessary resources to succeed, they must have a strong level of self-efficacy (Bandura, 1993). The higher a person's self-efficacy, the longer they will persist in a task. In a study conducted by Ramos-Sanchez and Nichols (2007), they found a correlation between self-efficacy and persistence in college. The results concluded that continued generation students had better academic outcomes than first-generation students.

College Intervention Programs

First-generation students have difficulty adapting to college life because they lack the knowledge of how to deal with barriers. As colleges find a way to retain the largest growing population, first-generation students, they are continually creating programs to meet the needs of these students. The focus of the programs varies from assisting students with managing school, work, and home, academic assistance, or mentoring assistance. To create programs where students feel connected, colleges have instilled summer bridge programs, learning communities, and mentoring programs.

The summer bridge program is a bridge program offered to underprepared and at-risk students as an early start to foundational college courses before students start college. For first-generation students, the summer bridge program introduces foundational college courses and offers college campus services, pre-college courses in reading and writing for credit, peer advisors and mentors, faculty and staff support system before and during the school year (Grace-Odeleye & Santiago, 2019) The purpose of bridge programs is to increase academic readiness, integrate students into the college and social community, introduce students to academic support programs, and promote self-efficacy and persistence. The contributions of bridge programs exist

to close the gaps where students are deficient (Costello, Ballin, Diamond, & Gao, 2018). While summer bridge programs vary greatly and colleges, they usually involve orientation to college life and resources; academic advising, self-skills needed for college success (time management, study skills, social support) accelerated academic coursework, orientation to university resources-library, health center, activity, and family support systems. Summer bridge programs promote students to build peer relationships while establishing a sense of belonging to the university.

A learning community is the intentional restructuring of the college curriculum by combining courses and registering a common cohort of students (Jehangir, Williams, & Pete, 2011). The use of learning communities has become of interest due to the benefits associated to the educational outcomes: college transition, college grades, satisfaction with college, persistence, and graduation, and perception of a supportive campus environment (Inkelas et al., 2004) It is composed of a cohort of students who take a cluster of classes together and share an interest in the same (Smith, MacGregor, & Matthews, 2004). The focus of learning communities is to develop students socially and intellectually. While colleges have structured learning communities in various ways, it remains that learning communities share the same two common elements: collaborative and connected learning. The purpose of learning communities is to build a relationship between students and faculty by rearranging the curriculum in the areas where students are likely to fail by organizing a students' time, credit, and learning experiences. Learning communities are beneficial in creating an environment where students are challenged and must be disciplined to achieve academic success. Learning communities have been identified as improving academic achievement, student commitment, and persistence (Kim, So, Song, Lim, & Kim, 2018; Tinto; Goodsell, 1994). Three different course designs have been

identified as learning communities-unmodified, linked or clustered, and team-taught (Malnarich, 2005).

Unmodified courses are composed of ten to thirty students who are enrolled in two or three unmodified courses and another course that is available only to the group. The additional course usually offers a student service such as career exploration, skill-based workshops, learning projects, field trips, academic advising, or a study group. First-year student interest groups are created based on an interesting topic or shared major and led by teaching assistants, student peer mentors, academic advisors, and counselors (Smith, MacGregor, Matthews, and Gabelnick, 2004).

In linked or clustered classes, a cohort of twenty-five to thirty students register for two or more courses that are linked by content. To foster cross-content and social learning, the faculty designs an integrated curriculum of the courses with a combined syllabus that links the courses together by common readings, films, and field trips. Courses are scheduled consecutively, to allow students the opportunity to work collaboratively, and it gives the faculty the ability to monitor projects, seminars, and group presentations. Assignments are interlinked, so one class can be a resource for the other (Malnarich & Associates, 2003). Common courses that are linked are composition, speech, information literacy, and computer applications.

In the team-taught learning community, the same faculty plans and teaches the program. Teaching teams include counselors, student affairs professionals, and librarians. The cohort is exposed to seminars, internships, laboratory studies, and research projects. The research by Tinto and Goodsell (1994) revealed four significant findings of students in a team-taught learning community. First, students have improved participation and attendance, and the cohort often meets outside the class to study and for social events. Second, students are encouraged to

develop their own identity from team teaching and activities. Third, academic performance and persistence increases in the collaborative setting. Lastly, collaborative learning can also work in a large institution and with students who commute (Kim, et. al, 2018).

Summary

First-generation students are those learners whose parents or guardians have not achieved a bachelor's degree. This population of college students will continue to draw the attention of teachers, administrators, practitioners, scholars, and policymakers, especially given the shifting demographics in the United States over the next several decades. Despite the number of these students who are enrolling in college, the number of conferred degrees for first-generation learners remains low. Unfortunately, due to the stressors and demands of life, first-generation students have difficulty balancing life and college. This chapter has presented the barriers these students have to face being academically successful and the college's solution to meet the needs of first-generation students. Bandura's (1986, 1997) theory of self-efficacy is the theoretical chosen to frame, interpret, and test the data collected in this study due to its robust and lasting findings that underscore the importance of non-cognitive psychological and sociological factors in helping college students succeed, especially those without the social, academic, or human capital skills of their peers. Colleges need to understand the academic and social needs of this growing population. Apprehending this phenomenon will allow students to have the same opportunities as that of non-first-generation students. Research has shown that first-generation students have the potential to be academically successful. However, research still needs to elucidate how institutions can improve the experience for first-generation African American college students.

CHAPTER THREE: METHODS

Overview

The purpose of this quantitative, causal-comparative study was to determine whether self-efficacy of first-generation African American college students during their first year of college is significantly different from non-first-generation African American college students. Five areas related to the study methodology are reviewed in this chapter. First, the research design and the rationale for the design are discussed. Second, the chapter recapitulates the research questions, followed by the hypothesis to be tested. Third, the population, sample, sampling procedures, and procedures for the recruitment of study participants are described. Next, and data collection and discussion of the instrumentation and operationalization of constructs are presented. Finally, the data analysis plan is described.

Design

A quantitative, causal-comparative design was chosen to investigate the research problem and questions that inform this study. The purpose of selecting quantitative research was to determine if significant differences exist between the variables using objective numeric measurements, statistical, mathematical, or numerical analysis (Gall, Gall, & Borg, 2007; Leedy & Omrod, 2013). Additionally, quantitative research employs inferential statistics with the intent of generalizing results to the larger population (Wright, O'Brien, Nimmon, Law, & Mylopoulos, 2016). Finally, the quantitative methodology used statistical procedures to determine the differences between the groups (Muijs, 2012). The goal of the current study was to determine if significant differences exist between mean perceived self-efficacy of first-generation and non-first generation African American college students. Therefore, a quantitative methodology was appropriate for this research. Specifically, a causal-comparative design

examines events, characteristics, and behaviors that have already occurred and collects numerical data to investigate a possible relationship between these events and subsequent characteristics or behaviors (Leedy & Ormrod, 2013). The research question for this study asked if a significant difference exists between the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students as measured by the College Self-Efficacy Inventory (CSEI).

Research Question

A single research question informed this study. The research question and the associated null and alternative hypotheses are as follows:

RQ1: Does a statistically significant difference exist between the perceived self-efficacy of first-generation and non-first-generation African American college students as measured by the College Self-Efficacy Inventory?

RQ2: Does a statistically significant difference exist between the perceived social self-efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

RQ3: Does a statistically significant difference exist between the perceived academic self-efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

RQ4: Does a statistically significant difference exist between the perceived roommate self-efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

Hypotheses

H₀₁: No statistically significant difference exists between the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students as measured by the College Self-Efficacy Inventory.

H₀₂: No statistically significant difference exists between the perceived social self-efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory.

H₀₃: No statistically significant difference exists between the perceived academic self-efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory.

H₀₄: No statistically significant difference exists between perceived roommate self-efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory.

Participants and Setting

The population of interest for the current study included full-time African American college students who live in the United States. African Americans comprise 14% of the total undergraduate population in the United States (Kena et. al, 2016). The target population for the current study were full-time African American college students whose parents have a college degree and full-time African American college students whose parents do not have a college degree. A total of 165 subjects participated in the study, of which 82 were first generation college students, and 83 were non-first-generation college students. All the participants were African American, full-time college students, who attended a public university. Additionally, all participants were at least 18 years of age. The sampling frame consisted of full-time college

African American college students whose parents have a college degree and full-time African American college students whose parents do not have a college degree to participate as online respondents to a survey panel through Qualtrics. The Qualtrics survey panel was the setting for this study. Qualtrics is a database of individuals who complete surveys for compensation. The market research survey panel consists of over 6.5 million panelists within the United States. It is estimated that 30,000-40,000 thousand panelists would meet the inclusion criteria for this study based on feedback from Qualtrics. Panelist compensation may take the form of cash or prizes with no cash value. Each panelist is required to provide Qualtrics with a wide range of descriptive demographic, firmographic, and psychographic information that is then used to target specific sample populations. Panel participants were screened and selected based on the following inclusion criteria: (a) African American full time college student, (b) attends a public or private college in the U.S., and (c) age 18 or over.

A power analysis was conducted to determine the sample size necessary to accurately test a null hypothesis for an independent samples *t*-test. G*Power (Erdfelder, Faul, & Buchner, 1996) was used to arrive at the minimum sample size for a *t*-test containing one dependent variable and one independent variable with two groups. The power analysis was calculated with the alpha level set at .05 and the beta level set at .80. The effect size and alpha levels are the standards for computing power analysis in social scientific research (Gall et al., 2007; Leedy & Ormrod, 2013). As recommended by Cohen (1988), with one independent variable, for a medium effect size ($f = .15$), a sample of 158 respondents will yield a power of 0.8 in testing hypotheses (Cohen, 1988).

Instrumentation

The independent variable in this study was African American college students which consisted of two groups: first-generation African American college students and non-first-generation African American college students. The continuous dependent variables were perceived collective self-efficacy, academic self-efficacy, social self-efficacy, and roommate self-efficacy as measured by scores on the College Self-Efficacy Inventory.

The College Academic Self-Efficacy Inventory (CSEI) (Solberg et al., 1998) enabled the data collection on academic self-efficacy. College self-efficacy was measured using the CSEI developed by Solberg (Solberg et al., 1997). According to Solberg et al. “The degree of confidence students has in their ability to successfully perform a variety of college-related tasks” (1993, p. 82). The CSEI (see Appendix D) comprises 20 questions, which are measured on a 10-point scale where 1 is not at all confident and 10 is extremely confident. The College Self-Efficacy Inventory is comprised of three subscales-social efficacy, academic efficacy, and roommate efficacy. Each subscale is represented by differing numbers of items in the College Self-Efficacy Inventory (Social-9 items, Academic-7 items, Roommate-4 items). Social efficacy is represented with nine items relating to interpersonal and social adjustment. Academic efficacy is represented within seven items with questions relating to course performance. Roommate efficacy is represented with four items relating to social interactions with those you live with (Solberg et.al, 1997).

In a study among students from India, exploring the relationship between college self-efficacy's inventory and students' academic success in university, Chronbach's alpha for all 20 questions was .97 (Chaudhary & Jain, 2015). This scored indicated that the CSEI has acceptable reliability. Additionally, CSEI has shown acceptable construct validity. Confirmatory factor

analysis was conducted on the Indian sample using structural equation modeling (SEM). The results of the SEM analysis indicated that the Comparative Fit Index (CFI) was .84, indicating that the CSEI had good fit on the sample data (Chaudhary & Jain, 2015). The Root Mean Squared Error of Approximation was 0.00, where values less than .05 indicate good model fit (Chaudhary & Jain, 2015). Finally, the CMIN (Normed Chi-Squared Value) was 1.82, where values between 1 and 5 indicate a good fit (Chaudhary & Jain, 2015). Based on these results the CSEI can be considered reliable and valid.

Procedures

The study was conducted after obtaining permission and approval from the Institutional Review Board at Liberty University (Appendix E). After Liberty's IRB approval, the survey instrument was sent to Qualtrics. Qualtrics, an online market research sample aggregator, was used to administer the questionnaire to the sample. Invitations to participate were sent to a randomized sample of respondents who met the inclusion requirements (see Appendix A). The invitation informed the potential respondents that the survey was for research purposes only, how long the survey is expected to take (10-15 minutes), and what incentives are available. Respondents who accepted were provided a consent form (see Appendix B). Respondents were prompted to answer the demographic questionnaire (see Appendix C). Additionally, to ensure participants closely scrutinized each question, respondents were instructed to type the word 'survey' as the answer to a mock demographical question. Participants who did not follow this protocol were not be able to access the survey. This re-screening helped to ensure participants still met the criteria for inclusion (i.e., Are you considered by your organization as a manager?) and were attentively completing the survey.

The research study dictated a sample of 158 respondents to yield a power of 0.8, based on a power analysis using G*Power (Erdfelder, Faul, & Buchner, 1996). After the researcher created the survey in the Qualtrics database, the survey was tested by surveying 15 participants. It was tested for entry and submission errors and reporting of the survey responses. Then, Qualtrics sent out 5000 emails to a random selection of the 30,000 respondents. African American full-time college students over 18 and who were attending a public or private college in the United States represented the sample criteria for inclusion. Half the sample were those whose parents have a college degree, and half represented those whose parents did not have a college degree. One hundred and sixty-five Qualtrics respondents who met the criteria were randomly selected to take the survey. The email invitation informed the participants about the study and presented a link to the informed consent form on the first page of the survey tool. Specifically, the invitation informed the potential respondents that the survey was for research purposes only, how long the survey was expected to take (10-15 minutes), and what incentives were available. Respondents who accepted the invitation clicked the link inside the recruitment email and were provided a consent form.

This study complied with the ethical standards of Liberty University's IRB. First, respondents were presented with informed consent at the beginning of the survey questionnaire. This ensured they were aware of their involvement in a research study and had given their informed consent or permission to participate. No deception or coercion occurred at any time during this study. Anonymity was ensured as there was no personally identifiable information collected in the survey, nor was there any collection of confidential information about the respondent. There was no exposure to mental or physical risk beyond that minuscule degree associated with survey research and large dataset analytics. Finally, the respondents' decision to

begin the study equaled their agreement to the terms of the informed consent communicated online before beginning the survey all procedures acceptable in social science research.

Respondents were required to accept the terms of the informed consent form by clicking “agree” before they began the survey. Data collection continued until 20% more of the target sample for each group was achieved. This accounted for the loss of sample information during the data cleaning process due to incomplete data errors. When the respondents completed the survey, they were thanked, and the survey ended. The steps in the data collection process were as follows:

Step 1: Before respondents began the survey, they agreed to the terms of the informed consent form by clicking the “I agree” link.

Step 2: Before respondents began the survey, they will began completing the demographic questionnaire with questions including:

1. Are you 18 years or older?
2. Are you an undergraduate student?
3. Are you a full-time student?
4. Do you identify as African American?
5. Do you attend a public university in the United States?
6. Have either of your parents attended college?
7. Have either of your parents graduated from college?

Step 3: After the demographic questions were completed, the respondent proceeded to complete the College Self-Efficacy Inventory.

Step 4: Once the goal number of completes was achieved, the study closed, and the data file was downloaded to the researcher’s computer and prepared for analysis. There was no personally identifiable information contained in the data file.

Data Analysis

The data were analyzed using four independent t tests. Three phases existed in the data analysis process: the data preparation phase, the preliminary analysis phase, and the primary analysis phase. During the data preparation phase, the data were uploaded into SPSS version 27. The data were then checked for errors and missing values using the frequencies procedure. If errors or missing data were found, the original data source was checked to correct the missing information. If the data could not be corrected, the case(s) were removed (Field, 2018). However, there were no data to be corrected; therefore, no cases were removed. After the data were checked for missing and invalid information, the CSEI score was computed for each respondent.

In the preliminary analysis, the first descriptive statistics computed were the demographic and CSEI variables. Frequency distributions were calculated that determined the percentages for each categorical demographic variable. For the CSEI, descriptive statistics were computed to generate mean and standard deviation scores across the sample. After descriptive statistics were generated for the sample, the data were tested for the parametric assumptions required of the t test: (a) independence (b) normality and (c) homogeneity of variance (Field, 2013; Pallant, 2016; Tabachnick & Fidell, 2013). The independence assumption is a methodological one. In the current study, first-generation college students cannot also be non-first-generation college students. The independence assumption, then, may be inferred from the study's design. To test for normality, Kolmogorov-Smirnov produced the requisite statistical along, as did the Levene's test for homoscedasticity

After the preliminary data investigation, the primary analysis analyzed the data to test the study's hypothesis. An independent samples t test (Field, 2018; Gall et al., 2007) determined if a

statistically significant difference existed in the CSEI scores between first-generation African American college students and non-first-generation African American college students.

Moreover, Cohen's d produced the effect size statistic between the scores.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this causal comparative study was to determine if a statistically significant difference exists in the self-efficacy of first generation and non-first generation African American college students as measured by the College Self-Efficacy Inventory. This chapter contains the research question, null hypothesis, descriptive statistics, and results. The data analysis also informs the essential contents of the chapter four.

Research Question

Four research questions inform this study. The research questions and the associated null hypotheses are as follows:

RQ1: Does a statistically significant difference exist between the perceived collective self-efficacy of first-generation and non-first-generation African American college students as measured by the College Self-Efficacy Inventory?

RQ2: Does a statistically significant difference exist between the perceived social efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

RQ3: Does a statistically significant difference exist between the perceived academic efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

RQ4: Does a statistically significant difference exist between the perceived roommate efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

Null Hypotheses

H₀₁: No statistically significant difference exists between the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students as measured by the College Self-Efficacy Inventory.

H₀₂: No statistically significant difference exists between the perceived social efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

H₀₃: No statistically significant difference exists between the perceived academic efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

H₀₄: No statistically significant difference exists between perceived roommate efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

Descriptive Statistics

Descriptive statistics are provided to inform a summary of the variable data for this study across for the independent variable African American college student status: first generation African American student and non-first-generation African American student—and the dependent variables: the score of the College Self-Efficacy Inventory, social efficacy, academic efficacy, and roommate efficacy. Composite means scores were calculated for three subscales (social efficacy, academic efficacy, and roommate efficacy) and a total scale of the College Self-Efficacy Inventory (Table 1).

Table 1
Mean Scores for Subscale by Generation Status

Scale	First Generation (<i>n</i> = 82)		Second Generation (<i>n</i> =83)		Total	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Social Efficacy	5.81	2.26	6.19	2.29	6.00	2.28
Academic Efficacy	6.26	2.25	6.55	2.28	6.41	2.26
Roommate Efficacy	6.08	2.34	6.63	2.43	6.36	2.39
Total College Self-Efficacy	5.97	2.16	6.36	2.20	6.17	2.18

Results

The data analysis for this research study employed four independent samples *t* tests to determine if a significant difference existed in College Self-Efficacy, including social efficacy, academic efficacy, roommate efficacy, and total college self-efficacy. The independent variable for these analyses was African American college student status: first generational student versus non first generational student as the categorical grouping variables. The dependent variables, measured on an interval scale were social efficacy, academic efficacy, roommate efficacy, and total college efficacy. All these dependent variables were measured on a 1 to 10 scale, where high scores represented greater efficacy.

Test of Assumptions

Before the independent sample *t* tests were conducted, the assumptions of the *t* test were reviewed. The assumptions include normality and homogeneity of variance. The Shapiro-Wilk test was conducted to determine if the distribution of scores differed from the normal distribution. Seven of the eight normality tests were significantly different from the normal distribution (Table 2). While all Shapiro Wilk tests were significant, except for Collective Self-

Efficacy -Parents did not graduate first-generation group, t test is robust to some violation of the assumption of normality However, the central limit theorem states that the distribution of sample means will be relatively normal when the sample sizes are large (at least 30) (Field, 2013, Pallant, 2016; Tabachnick & Fidell, 2013). Moreover, Field (2018) asserts that Shapiro-Wilk detects small differences from normality: “In large samples, these tests can be significant even when the scores are only slightly different from a normal distribution” (p. 190).

Table 2

Shapiro-Wilk Normality Test Results

	Generation Status of College Student	Shapiro-Wilk		
		Statistic	df	p
CSEI_Total Scores	Parents Did Not Graduate College (FGS)	.970	82	.055
	Parents Did Graduate College (Non FGS)	.948	83	.002
Social_Efficacy	Parents Did Not Graduate College (FGS)	.968	82	.038
	Parents Did Graduate College (Non FGS)	.958	83	.009
Academic_Efficacy	Parents Did Not Graduate College (FGS)	.955	82	.006
	Parents Did Graduate College (Non FGS)	.938	83	.001
Roommate_Efficacy	Parents Did Not Graduate College (FGS)	.955	82	.006
	Parents Did Graduate College (Non FGS)	.932	83	.<.001

Levene’s test of homogeneity of variance was conducted to evaluate the assumption of

homoscedasticity for each of the four dependent variables. The results indicated that there was no significant violation in variance homogeneity as the variances between groups, for all dependent variables, were not significantly different (Table 3).

Table 3*Levene's Test of Homogeneity of Variance*

	Levene	
	Statistic	p
CSEI_Total Scores	.079	.779
Social_Efficacy	.169	.682
Academic_Efficacy	.114	.736
Roommate_Efficacy	.000	.993

Hypotheses

H₀₁: No statistically significant difference exists between the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students as measured by the College Self-Efficacy Inventory.

A *t* test was conducted to determine if there was a difference in the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students. No significant difference existed in total CSEI total scores between first ($M = 5.97$, $SD = 2.15$) and non-first ($M = 6.36$, $SD = 2.20$) generation students, $t(163) = -1.16$, $p = .248$. The calculated mean showed on an average, students felt “somewhat confident,” but this result was not statistically significant. Therefore, the null hypothesis **H₀₁** failed to be rejected stating no significant difference in perceived self-efficacy of first-generation African American college students and non-first-generation African American college students (Table 4).

Table 4
Independent Samples t-Test Results

	First -Generation		Non-First Generation		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
CSEI Total Scores	5.97	2.15	6.36	2.20	-1.16	.248

H₀₂: No statistically significant difference exists between the perceived social efficacy of first-generation African American college students and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

A *t* test was conducted to determine if a difference existed between the perceived social efficacy of first-generation African American college students and non-first-generation African American college students. Results of the independent samples *t* tests indicated there were no first (*M* = 5.81, *SD* = 2.26) or non-first (*M* = 6.19, *SD* = 2.29) generation differences on social efficacy scores, *t* (163) = -.107, *p* = .287. The calculated mean showed that on average, both groups of students felt “somewhat confident” about their social efficacy. The results showed no statistically significant difference; therefore, **H₀₂** failed to be rejected stating no significant difference in perceived social efficacy of first-generation African American college students and non-first-generation African American college students (Table 5).

Table 5
Independent Samples t-Test Results

	First -Generation		Non-First Generation		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Social Efficacy	5.81	2.26	6.19	2.29	-1.07	.287

H₀₃: No statistically significant difference exists between the perceived academic efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

A *t* test was conducted on the perceived academic efficacy of first generation African American college students and non-first-generation African American college students. There was also no significant difference between first ($M = 6.26$, $SD = 2.25$) and non-first ($M = 6.55$, $SD = 2.28$) generation students on academic efficacy, $t(163) = -.812$, $p = .418$. The calculated mean for first-generation students showed on an average, students felt “somewhat confident” and non-first-generation students felt “confident” about their academic efficacy; however, the results were not statistically significant. The null hypothesis **H₀₃** failed to be rejected stating no significant difference in perceived academic efficacy of first-generation African American college students and non-first-generation African American college students (Table 6).

Table 6

Independent Samples t-Test Results

	First -Generation		Non-First Generation		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Academic Efficacy	6.26	2.25	6.55	2.28	-.81	.418

H₀₄: No statistically significant difference exists between perceived roommate efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

A *t* test was conducted on the perceived roommate efficacy of first generation African American college students and non-first-generation African American college students. No

significant differences between first ($M = 6.08$, $SD = 2.34$) and non-first ($M = 6.63$, $SD = 2.43$) generation students existed for roommate efficacy, $t(163) = -1.48$, $p = .140$. The calculated mean for first-generation students showed on an average, first-generation students felt “somewhat confident” and non-first-generation students felt “confident” about their roommate efficacy although, as with the other results, chance was just as likely to explain the results as was an effect in the data. Based on the results of the independent samples t tests, the null hypothesis **H₀₄** failed to be rejected stating no significant difference in perceived roommate efficacy of first-generation African American college students and non-first-generation African American college students (Table 7).

Table 7

Independent Samples t-Test Results

	First -Generation		Non-First Generation		t	p
	M	SD	M	SD		
Roommate Efficacy	6.08	2.34	6.63	2.43	-1.48	.140

CHAPTER FIVE: CONCLUSIONS

Overview

The purpose of Chapter Five is to provide a review of this study's results in the context of the theoretical framework and extant literature. The chapter is divided into four sections. First, there is the discussion section, where the results of the study are discussed in the context of the theoretical framework and the literature review. Next, is the implication section, where the potential impact on positive social change, academic institutions, and theory are discussed. A review of the limitation of the study follows. Limitations are characteristics of the study that adversely affect the generalizability, validity, and/or reliability of the study. This chapter concludes with recommendations for future research.

Discussion

The purpose of this quantitative, causal-comparative study was to determine whether the perceived self-efficacy, social efficacy, academic efficacy, and roommate efficacy of first-generation African American college students significantly differed from non-first-generation African American students. The explanation of results for the four research questions that were generated is as follows.

RQ1: Does a statistically significant difference exist between the perceived collective self-efficacy of first-generation African American college students and non-first-generation African American college students as measured by the College Self-Efficacy Inventory?

A t test was conducted to determine if there was a difference in the perceived self-efficacy of first-generation African American college students and non-first-generation African American college students. The results indicated that no significant difference existed in total CSEI total scores between first and non-first-generation students. This result does not align with

what was expected, based on Bandura's (1997) self-efficacy theory. Bandura (1997) defined self-efficacy as exercising control over one's life; an individual can increase the probability of desirable outcomes for his/her actions while decreasing the likelihood of undesirable outcomes. People are more likely to participate in tasks they feel confident in and avoid activities where they may potentially fail (Vuong, Brown, & Tracz, 2010). People who have self-efficacy are likely to be self-regulating and strategic and perceive themselves to be capable, thus exerting considerable effort and persisting longer in a task. Self-efficacious people tend to blame outcomes on themselves, while people who lack self-efficacy blame outcomes on others.

Early research paired the retention rates of first-generation college students with parental involvement and parental education levels (Bui & Rush, 2016; Butt & Musthtaq, 2016; Mitchell & Jaeger, 2016; Perna & Titus, 2005; Terenzini et al., 1996). First-generation college students are less knowledgeable about making important decisions that pertain to college life and involvement. Based on this research, it was expected that non-first-generation students would have greater perceived self-efficacy, given their exposure to parents who had attended college. These students would potentially have access to at least one parent who had experience with college and could advise their child on how to overcome challenges related to college life. This would be analogous to a student having their own personal college counselor, who was intimately aware of their strengths and weaknesses, and who had known the student all of their life. This would, seemingly, be an advantage over the first-generation students, who would be entering into a novel environment with little to no assistance. So, the non-significant differences that resulted did not align with what was expected.

RQ2: Does a statistically significant difference exist between the perceived social efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

A t test was conducted to determine if a difference existed between the perceived social efficacy of first-generation African American college students and non-first-generation African American college students. Results of the independent samples t tests indicated that there were no first or non-first generation differences on social efficacy scores. These results did not align with what was expected, based on previous research. Numerous studies have shown that first-generation students have difficulty transitioning to college (Alvarado, Spataru & Woodbury, 2017; Cataldi, Bennett & Chen, 2018). First-generation students are less apt to immerse themselves in college life because they are more focused on getting a degree than they are with the social aspect of college (Moschetti & Hudley, 2015; D'Amico & Dika, 2013; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). The parents of non-first-generation students may understand the importance of immersion into college life, having attended college themselves. As a result, they may be more likely than parents of first-generation students to encourage participation in college life. Therefore, it was expected that non-first-generation students would score significantly higher on perceived social self-efficacy than first generation college students.

Student retention has been associated with interactions of administrators, faculty, advisors, and peers (Kenner & Weinerman, 2011). The interactions students have with academic and support services foster the student's feeling of being connected to the campus. Therefore, researchers and practitioners alike stress the importance of examining services provided on college campuses as an essential pathway to meet the needs of first-generation students, to

improve their satisfaction, enhance the college experience, and help these students persist to degree completion (Falcon, 2015; Forbus, Newbold, & Mehta, 2011). It was expected that the parents of non-first-generation college students would also see the importance and benefit of academic and support services, having attended already college, and would be more likely to encourage their children to participate in such services than parents of first-generation services. However, the results of the study did not align with what was expected, as there were no significant differences in perceived social efficacy between first and non-first-generation college students.

RQ3: Does a statistically significant difference exist between the perceived academic efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

A t test was conducted on the perceived academic efficacy of first generation African American college students and non-first-generation African American college students. There was also no significant difference between first and non-first-generation students on perceived academic efficacy. First-generation college students struggle with transitioning to college and staying in college until degree completion. Early research paired the retention rates of first-generation college students with parental involvement and parental education levels (Bui & Rush, 2016; Butt & Musthtaq, 2016; Mitchell & Jaeger, 2016; Perna & Titus, 2005; Terenzini et al., 1996). Pratt & Skaggs (1989) coupled first-generation college student retention rates to their academic and social struggles. Richardson and Skinner (1992) found that first-generation college students have a deficit in study and time management skills, which exist as precursors to academic success. It was expected that non-first-generation students would have significantly higher academic self-efficacy than their first-generation counterparts. This is because parents

who graduated from college would have the study and time management skills necessary to succeed in college. They would be more likely to teach their child these skills than parents who had not attended college. Therefore, the results of this study did not align with what was expected from the previous research.

Extensive research has found self-efficacy to be a predictor of academic achievement (Barry & Finney, 2009; Bong, 2001; Chemers, Hu, & Garcia, 2001; Gore, 2006; Seidman, 2018; Torres & Solberg, 2001). Research also points to first generation students having lower self-efficacy than others, which has affected academic outcomes in comparison to their non-first-generation counterparts (Garza, Bain, & Kupczynski, 2014). Contradictory to research conducted by Wright, Jenkins-Guarnieri, Murdock (2013) and Vuong, Brown-Welty, & Tracz (2010), this study found no differences in the self-efficacy of first-generation students and non-first-generation students.

Considering the differences between first-generation college students and non-first-generation college students one might understand why first-generation students score have a low self-efficacy which in return justifies why the retention and graduation rate of first-generation college students are lower than their counterparts. The results of the study support the previous statement; however, the self-efficacy of non-first generation African American college students was not significantly higher. These results contradict what was expected but supports past research studies. In a study conducted by Wright, Jenkins-Guarnieri, & Murdock (2012), first generation college students and non-first-generation college students were administered the CSEI to determine academic success and persistence. The results found no significant differences in self efficacy between the two groups with the subscale academic efficacy being a significant predictor. White and Mc-Govern (2015), conducted a study of 338 college students and there

was no difference found in self-efficacy based on generational status. The two previous studies support the research of Vuong, Brown-Welty (2010) which found no difference in academic self-efficacy between first-generation and non-first-generation students. Studies have also suggested that student persistence, (Peck, 2017; Wright, Jenkins-Guarniere, & Murdock, 2012) financial stress (Bong, 2001; Vuong, Brown-Welty & Tracz, 2010); and ethnicity (Aguayo, Herman, Ojeda, & Flores, 2011; Covarrubias, Jones, & Johnson, 2020) to influence a student's self-efficacy. The results of the previous studies support the researcher's findings of there being no significant difference in self-efficacy between first-generation and non-first-generation students.

RQ4: Does a statistically significant difference exist between the perceived roommate efficacy of first-generation and non-first-generation African American college students as measured by this sub-scale of the College Self-Efficacy Inventory?

A t test was conducted on the perceived roommate efficacy of first generation African American college students and non-first-generation African American college students. No significant differences between first and non-first-generation students existed for roommate efficacy. These results are not supported in the literature. Based on the literature, there are notable differences between first-generation African American students and non-first-generation African American students. First-generation students come from homes where neither parent has a college degree. Therefore, first-generation students do not have familial support which is important for college students being able to navigate through the college process opposed to non-first-generation students who have family support to guide them through the college process. First generation students are more likely than their counterparts to have a lower GPA, have difficulty developing faculty and peer relationships, live off campus, take classes part time, work part time, and drop-out of college early (Cataldi et. al, 2018; Mehta, Newbold, & O'Rourke,

2011; Stephens et. al, 2012). In addition, first generation students experience financial difficulty. Non-first-generation students, who are blessed to have familial support, are more likely to enroll in rigorous high school courses, go to a college or university, and obtain a degree. So, the non-significant difference findings do not align with what was expected from the research.

First-generation students are less likely to live on campus and engage in campus life, both of which are important in creating smooth transitions to college and increasing academic success (Pike & Kuh, 2005). Since they are less likely to live on campus, they were expected to have lower perceived roommate self-efficacy than their non-first-generation counterparts. For example, thirty-one percent of first-generation students choose to live off-campus during their first year of college, compared to 16% of their peers. Additionally, thirty-seven percent plan to work full-time while earning their degree as opposed to 25% of non-first-generation students (Higher Education Research Institution, 2005), thus making engagement in campus activities more challenging. If campus engagement is lacking, it may be more difficult for students to receive peer support, which can be instrumental in students' transitioning to college, especially for African Americans (Astin, 1975; Sidelinger, Frisby, & Heisler, 2016, & Tinto, 1993). Since parents of first-generation African American students may not be able to provide academic-related assistance due to lack of direct knowledge or experience, peers may be well-suited to provide these resources (Dennis et al., 2005). Peers help one another by providing insight into courses and recommending professors. They can also form study groups, share notes, and provide tips for success. However, the increased outside responsibilities, likelihood of full-time employment, and the tendency to live off-campus make campus engagement and peer support less likely (Pascarella et al., 2004), thus increasing the risk for a problematic academic transition and potential to drop-out after the freshman year (Ishanti, 2003). Therefore, the results are

opposite of what was expected, as there were no significant differences in perceived roommate self-efficacy between first generation and non-first-generation college students.

Implications

Numerous studies have stated that self-efficacy relates to academic achievement and academic persistence in college students (Chemers, Hu, & Garcia, 2001; Honicke & Broadbent, 2016; Phan & Ngu, 2016). Additionally, research has supported that first-generation students possess the characteristics of resiliency and self-efficacy to excel academically (DeFreitas & Rinn, 2013; Elliott, 2014; Garriott, Hudyma, Keene & Santiago, 2015); however, first-generation students struggle to be academically successful. First generation college students face different challenges than their peers, and research has indicated the self-efficacy of first-generation college students has been an indicator of their academic success (Khan, 2013). Therefore, the main purpose of this study was to determine if generational status influenced the self-efficacy of African American college students.

The first implication of this study relates to the self-efficacy scores of first-generation African American college students and non-first-African American college students. The first-generation African American college students produced lower CSEI mean scores ($M=5.97$) than non-first-generation students ($M=6.36$); however, the difference was not significant. The findings suggest that colleges should prioritize listening to their students to determine what students' value as aspects of their education that contribute to their success and flourishing. Some research in the literature suggests that colleges should focus on the self-efficacy of first-generation African American college students to ensure academic success (Seidman, 2018) although this study's results did not find evidence for differences in efficacy. However, as Gall et al. (2007) remind scholars and practitioners, single studies results cannot be used to disprove

otherwise theoretically and empirically sound findings. In an implication that follows on other research on the current problem (Falcon, 2015; Forbus, Newbold, & Mehta, 2011), colleges may need to consider giving first generation students a self-efficacy assessment when they enter college and periodic self-efficacy assessments. The results validate a need for colleges to continue to monitor the self-efficacy of first-generation African American students.

The second implication focuses on colleges making a financial investment in first generation students until graduation. Although the present study did not assess the role of financial aid, its presence or absence has been found by other researchers to matter in the college efficacy outcomes of students (Furquim, Glasener, Oster, McCall, DesJardins, 2017). This investment may be in offering pre- and post-college programs to assist first generation African American students in their academic success. Pre and post college programs such as summer bridge programs, orientation programs, peer mentoring, academic cohorts, and learning communities can make a difference in a student's self-efficacy and students acclimating to college life. Students come to college with established characteristics and skills-personal, family, and academic. Personally, it is believed that through those characteristics and norms that one's self-efficacy is cultivated. As students continue in college, academic and social integration can have a positive or negative affect on a student's self-efficacy. As a first-generation African American student, I did not immerse myself into college-academically or socially, and it had a significant effect on surviving college. Incorporating and monitoring academic and social integration is where colleges must commit to first-generation African American college students until graduation.

The present study did not try to link self-efficacy to any outcomes, instead relaying on what the literature indicates was an existing relationship between successful outcomes in college

and efficacious beliefs (Barry & Finney, 2009; Bong, 2001; Chemers, Hu, & Garcia, 2001; Gore, 2006; Seidman, 2018). Given that colleges continue to struggle with the retention of the first-generation college student population (Seidman, 2018; Torres & Solberg, 2001), there seems to be a need, regardless of the findings from this study, for colleges to figure how to retain this group of students to graduation. One possible implication of this study might be that African American students from non-first-generation backgrounds, may experience imposter syndrome or experience stereotype threat. Essentially, imposter syndrome is doubting your abilities and feeling like a fraud (Steele & Aronson, 1995; Jones, 2021). College students who experience this, find it difficult to accept their accomplishments and may feel underserving. Stereotype threat, in this context, is a predicament where a college student is or feels themselves at risk of conforming to stereotypes about their social group (i.e., African Americans) (Steele & Aronson, 1995; Jones, 2021). This could explain why there were no significant differences in perceived self-efficacy between the first generation and non-first-generation college students. Despite the many hardships first-generation students face, they can still persevere through college. However, it will require the college, faculty, and support services to be more involved in the first-generation African American student's academic journey.

Limitations

This study has several limitations. The first limitation of the study is related to the sample population. First generation African American college students were surveyed across the four academic classifications of -freshman, sophomore, junior, and senior. It may be that first-generation African American college students who are into their college career have a higher self-efficacy than freshman students. Replicating the study, comparing the self-efficacy of first generation African American college freshman students and first-generation African American

college senior students would help researchers understand the role of self-efficacy in the later years of college.

Another limitation of this study is the age of the sample population. The sample population was over the age of 18. The demographic questionnaire did not ask the participant if they were a traditional or non-traditional student, married, and/or had children. A participant who attends college full time and has other responsibilities, such as a spouse, children, and full-time job, may have an effect of the self-efficacy score.

The present study did not try to link self-efficacy to any success outcomes such as academic performance or graduation. Instead, the study focused on measuring the difference in efficacy between first generation and non-first-generation college students. The current study relied on what the literature indicates was an existing relationship between successful outcomes in college and efficacious beliefs. So, it could be argued that more variables need to be added to the model.

The causal-comparative designs involve no direct manipulation of the independent variable. Therefore, no conclusions can be drawn about cause and effect. Additionally, this design relies on self-report data. This is another limitation, as self-report data can be subject to social desirability bias (responding in ways that makes one look good). Self-report data can also be limited by selective memory.

The final limitation of the study relates to the data collection method. Being that the study was quantitative, a qualitative study blended with a quantitative study for a mixed methods research design study. Combining the design studies could provide a stronger outcome and provide the descriptive details to help the researcher better understand the results.

Recommendations for Future Research

After evaluation of this study, the following recommendations for future research have been determined:

1. Conduct the same comparative study at different times of the semester: beginning, middle, and end. Gathering the data during different times of the semester can help the researcher determine if the self-efficacy of students increases or decreases after classes are taken.
2. Conduct the same comparative study with first-generation African American students who have taken rigorous high school courses or attended a summer bridge program and first generation African American students who have not taken rigorous high school courses or attended a summer bridge program to determine if pre-college experiences influence self-efficacy.
3. Conduct the same study comparing two different ethnicities to determine if race is a determinant of self-efficacy.
4. Conduct a qualitative study or mixed methods study that would provide narrative data to explain the participant's experiences in the subscales as it relates to the College Self-Efficacy Inventory.
5. Design a study that examines the antecedents and consequences of self-efficacy to determine if any of these variables predict important success outcomes for first-generation students and students of color.

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APPENDICES

Appendix A: Student Email Script

Dear Student:

As a doctoral graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree. The purpose of my research is to determine the effect of self-efficacy on first-generation African American college students, and I am writing to invite eligible participants to join my study.

Participants must be a full-time first-generation African American undergraduate college student or a full-time non-first-generation African American undergraduate college student who is 18 years or older and attending a public university in the United States. Participants, if willing, will be asked to complete an anonymous online survey, consisting of demographic questions and the College Self-Efficacy Inventory (15 minutes). Participation will be completely anonymous, and no personal identifying information will be collected.

To participate, please click the link below to complete the survey. A consent form is provided as the first page of the survey. The consent document contains additional information about my research. After you have read and agreed to the consent form, please proceed to complete the online survey.

Sincerely,

Benita Thorne-Cabbler
Liberty University Doctoral Candidate

[Redacted Signature]

Click here to take the survey:

Appendix B

CONSENT FORM

The Effect of Self-Efficacy on First Generation African American Students
Benita Thorne-Cabbler
Liberty University
School of Education

You are invited to participate in a research study to measure College Self-Efficacy. You were selected as a possible participant because you are 18 years or older, a full-time college first-generation African American undergraduate college student or full-time non-first-generation African American undergraduate college student who attends a public university in the United States. Please take the time to read this entire form and ask questions before deciding whether to take part in this research project. Taking part in this research project is voluntary.

Benita Thorne-Cabbler, a student in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to measure the effect of self-efficacy on first-generation African American college students. The results will provide data on whether there is a significant difference in the self-efficacy of first-generation African American students and non-first-generation African American students.

Procedures: If you agree to the study, I will ask you to do the following things:

1. Complete the demographic student questionnaire and the College Self-Efficacy Inventory. It should take approximately 15 minutes to complete the demographic student questionnaire and the College Self-Efficacy Inventory.

Benefits: Participants should not expect to receive a direct benefit from taking part in this study.

Participating in the study benefits students, colleges, and society in understanding how self-efficacy affects the academic success of first-generation African American students. The study will address social skills, test-taking strategies, and academic performance, which are critical factors in students being academically successful.

Risks: The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Confidentiality: The records of this study will be kept private. Research records will be securely stored, and only the researcher will have access to the records.

- The participant survey is an anonymous online survey. The researcher will not be able to link data to a specific participant.

- Data will be kept on a password-locked computer in the researcher's home and may be used in future presentations. After three years, all electronic records will be deleted.

Compensation: Participants will not be compensated for participating in this study.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Contacts for Questions: The researcher conducting this study is Benita Thorne-Cabbler. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED] or [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. Jeffrey Savage, at [REDACTED].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at [REDACTED].

Statement of Consent: Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

Appendix C: Demographic Questionnaire

Please complete the following questionnaire before you complete the College Self-Efficacy Inventory. Thank you!

- | | | | |
|----|---|--------|-------|
| 1. | Are you 18 years or older? | ___YES | ___NO |
| 2. | Are you an undergraduate student? | ___YES | ___NO |
| 3. | Are you a full-time student? | ___YES | ___NO |
| 4. | Do you identify as African American? | ___YES | ___NO |
| 5. | Do you attend a public university in the United States? | ___YES | ___NO |
| 6. | Have either of your parents attended college? | ___YES | ___NO |
| 7. | Have either of your parents graduated from college? | ___YES | ___NO |

Appendix D: College Self-Efficacy Inventory (CSEI)

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Appendix E: IRB APPROVAL

Date: 3-14-2021

IRB #: IRB-FY20-21-17

Title: The Effect of Self-Efficacy on First Generation African American Students

Creation Date: 7-12-2020

End Date:

Status: **Approved**

Principal Investigator: Benita Thorne

Review Board: Research Ethics Office

Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt
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Key Study Contacts

Member	Jeffrey Savage	Role	Co-Principal Investigator	Contact	jsavage2@liberty.edu
Member	Benita Thorne	Role	Principal Investigator	Contact	blthorne@liberty.edu
Member	Benita Thorne	Role	Primary Contact	Contact	blthorne@liberty.edu