FROM RISK TO RESILIENCE: EXAMINING RESILIENCE AND PERSONAL GROWTH

INITIATIVE IN FIRST-GENERATION COLLEGE STUDENTS

by

VANDEN THONG

Bachelor of Arts, 1999
The University of Texas at Austin
Austin, Texas

Master of Education, 2001
The University of Texas at Austin
Austin, Texas

Submitted to the Graduate Faculty of the
College of Education
Texas Christian University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

May 2018

ACKNOWLEDGEMENTS

ABSTRACT

First-generation college students (FGCS) have more difficulty integrating into college and are less likely to complete their degrees successfully (Chen & Carroll, 2005; Choy, 2001; Gardner & Holley, 2011; Ward, Siegel, & Davenport, 2012). Despite the challenges, some FGCS succeed. To explore different factors that may contribute to their success, this study examined two strengths-based constructs, *resilience* and *personal growth initiative*, in FGCS attending a private university. The research uses a cross-sectional study involving an online survey to collect data and detect differences that may exist between FGCS and non-first-generation college students (NonFGCS) across different academic classifications. The survey incorporates 75 items from the Connor-Davidson Resilience Scale (CD-RISC), Child and Youth Resilience Measure-28 (CYRM-28), Personal Growth Initiative Scale-II (PGIS-II), and a demographics questionnaire. Participants include a sample population of 205 students (95 FGCS and 110 NonFGCS). Descriptive analyses and two-way ANOVAs are performed to examine scores from the CD-RISC, CYRM-28, and PGIS-II. Findings revealed that a greater number of FGCS are in minority groups than NonFGCS. In addition, trends for the estimated annual income between FGCS and NonFGCS travel in opposite directions since the number of FGCS decrease as the number of NonFGCS increase. Statistical analysis reveals a significant difference between FGCS and NonFGCS for the CYRM-28 but not for the CD-RISC or PGIS-II. The researcher discusses the findings of this study and their implications.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

From Risk to Resilience: Examining Resilience and Personal Growth Initiative in First-

Generation College Students

CHAPTER ONE: INTRODUCTION

With the cost of higher education increasing, colleges and universities feel more pressure

to retain students until they complete their degrees (Astin, 2006; Braxton, 2002; Campbell &

Mislevy, 2013; Ward, Siegel, & Davenport, 2012). When the investment in higher education

does not yield a tangible return—a baccalaureate degree—the failure to obtain the degree

negatively affects multiple stakeholders, including the individual student, the higher education

institution, and the national economy (Campbell & Mislevy, 2013; Choy, 2001; Sheheen, 1988;

Tinto, 1975). Since students pay more to invest in their education with the hopes of increasing

their future earning potential, the completion of a degree holds greater monetary and personal

value (Jehangir, 2010; Tang, Kim, & Haviland, 2013; Ward et al., 2012). For institutions of

higher education, high attrition rates affect their finances, academic reputation, and educational

prestige (Braxton, 2002; Sheheen, 1988). As a country, low graduation rates reduce the nation's

economic productivity and global competitiveness (Broad, 2011; Campbell & Mislevy, 2013).

A critical aspect of understanding the retention of students involves examining the

transition and retention process. The transition to college may be a challenging time for the

majority of new students. For example, students enter a new environment in which they must

search for new identities and roles, test their knowledge and skills, and re-establish supportive

relationships, thus affecting their later persistence in college (Tinto, 1975; Ward et al., 2012).

Most students experience some difficulties transitioning into a new college environment

(Jehangir, 2010; Ward et al., 2012). How well students transition to college academically and

socially likely affects their long-term persistence and success (Inkelas, Daver, Vogt, & Leonard,

2007; Tinto, 1975). Research examining student awareness during the college transition period indicates new students are cognizant of their experience early in the process and gain a sense of comfort and fit with the new environment as early as six to eight weeks into their first college enrollment. The students' perceived comfort or discomfort in the college environment may influence future college experiences (Campbell & Mislevy, 2013; Tinto, 1975; Ward et al., 2012).

Numerous studies recognize the significance of the early college transition experience and its connection to student development and retention (Campbell & Mislevy, 2013; Tinto, 1975; Ward et al., 2012). The adjustment period for new students involves adapting to a new context, which typically includes experiencing some common adjustment problems and transitional distresses. To be successful, students need to learn how to navigate their new surroundings effectively and acclimate to the academic and social culture (Tinto, 1975). They must adapt to rigorous academic expectations, cultivate new interpersonal relationships, engage in a different learning community, cope with homesickness, determine the boundaries of their newfound independence away from home, and transition from one academic year to the next (Jehangir, 2010; Tinto, 1975; Ward et al., 2012). Most students, regardless of educational background and personal characteristics, experience some basic adjustment struggles adapting to college life (Inkelas et al., 2007; Stephens, Hamedani, & Destin, 2014; Tinto, 1975).

Depending on the individual student, however, the type of concerns and difficulties that each student encounters may vary widely. The severity of the distress that different groups of students encounter may change according to their unique background and characteristics (Jehangir, 2010; Liebenberg & Ungar, 2009; Masten, 2001; Ward et al., 2012; Woosley & Shepler, 2011). Since first-generation college students (FGCS) do not have the guidance of a

parent with a college degree, they usually have greater difficulty integrating successfully into an institution of higher education and are less likely to continue and graduate from college (Choy, 2001). Research comparing the college experience of FGCS and non-first-generation college students (NonFGCS) find that FGCS encountered more barriers and challenges that decrease their chances of completing degrees successfully (Astin, 2006; Choy, 2001; Jehangir, 2010; Ward et al., 2012). FGCS more likely experience academic problems and have financial difficulties, speak a different language other than English at home, and be members of underrepresented minority groups (Bui, 2002; Mehta, Newbold, & O'Rourke, 2011; Ramos-Sanchez & Nichols, 2007).

Statement of the Research Problem

Multiple studies demonstrate the significance of examining the early college experience and its effect on a student's immediate impression and long-term outcome. However, few researchers explore the construct of resilience and personal growth initiative in the experiences of FGCS as they progress through college (Bui, 2002; Choy, 2001; Woosley & Shepler, 2011). The initial college integration period, even as brief as the first six weeks, influence later performance and affect student retention. Most institutions of higher education monitor retention rates and worry about student attrition. Because the enrollment number of FGCS is increasing in higher education institutions, addressing retention concerns is critical and accurately assessing the needs of first-generation students is important. Frequently described as an "at-risk" population, first-generation students are more likely to leave college before completing a degree (Chen & Carroll, 2005; Choy, 2001; Gardner & Holley, 2011; Ward et al., 2012). Therefore, graduation and retention rates are usually lower for first-generation students than traditional

students (Gardner and Holley, 2011; Martin Lohfink & Paulsen, 2005; Riehl, 1994; Ward et al., 2012).

According to the U.S. Department of Education in 2005, the pathway to higher education for FGCS is paved with obstacles. Enrollment statistics obtained on students who entered college between the years 1992 and 2000 reveal that fewer first-generation students attend college than other students within eight years after graduating from high school (Chen & Carroll, 2005). Once they enter college, the chances of low-income first-generation students dropping out after the first year is four times greater than that of other students (Ward et al., 2012). In general, FGCS are more likely to come from a lower socioeconomic status, have less familiarity with the campus environment, are likely to be unacquainted with collegiate expectations, and tend to lack the required academic preparation to meet a rigorous college curriculum (Astin, 2006; Choy, 2001; Jehangir, 2010; Sheheen, 1988; Ward et al., 2012). The different factors influence the college experience and retention of FGCS.

Knowledge about FGCS comes from a broad variety of institutions and settings, ranging from two-year colleges to four-year universities, from private institutions to public state schools (Ward et al., 2012). Based on available data, researchers identify general attributes and common challenges shared by FGCS but fail to account for the existence of within-group differences at separate institutions (Astin, 2006; Baker & Robnett, 2012; Tang et al., 2013). Although many colleges and universities collect information about their own student population, they fail to analyze differences in demographic information. As a result, using a compilation of data collected from various colleges and universities to make decisions at a specific institution tends to be limited and flawed. The age range, racial makeup, ethnicity, gender, and socioeconomic status of the original sample may not be comparable or similar at each institution, thus distorting

the image of FGCS at a specific institution. For example, the number and characteristics of

FGCS may differ significantly at private universities when compared to public institutions.

Several authors urge institutions of higher education to develop a method for collecting data to

account for the unique composition of its FGCS population and to respond to its needs

appropriately, specifically while they transition into college (Astin, 2006; Bui, 2002; Gardner &

Holley, 2011; Mehta et al., 2011; Ward et al., 2012).

Purpose of the Research

The population commonly referred to as FGCS is dissimilar and heterogeneous, with

each group of students and type of institution that they attend varying widely. Broad

assumptions and general descriptions do not accurately reflect the distinctive qualities of a

population, neglect to capture its unique demographics characteristics, and fail to account for the

unique needs of FGCS at a specific institution. Therefore, it is important to explore how age,

gender, race and ethnicity, socioeconomic status, and personal characteristics affect FGCS at

different stages of the college experience (Gardner & Holley, 2011; Long, Jenkins, & Bracken,

2000; Naumann, Bandalos, & Gutkin, 2003; Ward et al., 2012).

By examining the college transition experience from first year to senior year through a

strengths-based perspective, this research explores constructs such as resilience and personal

growth initiative and related factors and processes, which may allow first-generation students to

overcome challenges and transition better academically and socially throughout their time in

college. Preceding studies indicate that many first-generation students rely on positive personal

attributes and relational support (such as resiliency, self-motivation, self-efficacy, and

determination) to help them achieve their goals (Bandura, 2002; Inkelas et al., 2007; Liebenberg,

Ungar, & Vijver, 2012; Tinto, 1975; Ward et al., 2012). Most students experience some type of

disorientation and emotional distress transitioning into college that persists until graduation. Thus, exploring variables that may contribute to the students' self-perception about their personal capabilities and resources, ability to adapt and change, and sense of belonging and connectedness seems appropriate. This research expands upon past knowledge about FGCS by exploring individual, relational, and contextual factors and processes connected to resilience and personal growth initiative of students attending a private university by examining students in their freshman, sophomore, junior, and senior years (Gardner & Holley, 2011; Naumann et al., 2003; Stieha, 2010). Resilience and personal growth initiative are strengths-oriented constructs hypothesized to promote optimal adaptation and adjustment to different settings and diverse cultural environments (Campbell & Mislevy, 2013; Henderson, 2003; Masten, 2014; Rutter, 2007; Schoon, 2006; Specht, Polgar, & King, 2003; Yakunina, Weigold, & Weigold, 2013).

This study examined resilience, personal growth initiative, and demographic characteristics in FGCS attending a private university by collecting data from both FGCS and NonFGCS. A combination of measurement tools helped to capture research participants' unique data and demographic information, including their self-perceptions about their personal resources, relationships with other people, and connection to the larger community. The primary strategy used to detect the distinctive qualities of FGCS relied on comparing this population with their non-first-generation student peers. This method also considered academic classification by accounting for years in college. The researcher used an online survey to collect data from both FGCS and NonFGCS. To identify significant differences, the researcher analyzed survey responses collected from all student participants. To measure the construct of resilience, assess the construct of personal growth initiative, and capture demographic information, the researcher created a survey that incorporated three rating scales and a questionnaire. The survey consisted

of the Connor-Davidson Resilience Scale (CD-RISC), the Child and Youth Resilience Measure-28 (CYRM-28), the Personal Growth Initiative Scale-II (PGIS-II), and a demographics questionnaire.

Research Questions

The following questions guided this research:

1. Do significant differences exist on the construct of resilience between FGCS and NonFGCS as measured by the CD-RISC and the CYRM-28? How do these differences manifest across academic classifications?

2. Do significant differences exist on the construct of personal growth initiative between FGCS and NonFGCS as measured by the PGIS-II? How do the differences manifest across academic classifications?

Research Hypotheses

The research hypotheses included the following:

H_a1. Significant differences exist on the construct of resilience between FGCS and NonFGCS as measured by the CD-RISC and the CYRM-28. FGCS will score significantly lower on the resilience measurements than NonFGCS, with FGCS in their first semester scoring lowest. There will be a positive relationship between academic classifications and resilience scores.

H_a2. Significant differences exist on the construct of personal growth initiative between FGCS and NonFGCS as measured by the PGIS-II. There will be a positive relationship between academic classifications and PGIS-II scores.

Significance of the Research

By exploring demographic characteristics, resilience, and personal growth initiative in the college transition process, people gain a more in-depth understanding of FGCS. This study seeks to identify different factors and processes that may facilitate college transition and promote retention. By recognizing individual and contextual factors that contribute to college adjustment and persistence, higher education professionals may understand the unique needs of FGCS. Information obtained regarding the characteristics of FGCS allows professionals to recognize how resilience and personal growth initiative differ across academic classification and between FGCS and NonFGCS to determine what resources and support structures may contribute to adjustment and retention. The identification of distinctive differences and determination of appropriate support needs may enable current students to adjust and persist in the college environment and help future students by allowing them to use similar protective factors to access those same advantages and strengths to graduate from college successfully. Ward, Siegel, and Davenport (2012) note that regardless of their background, students who interact in a diverse college community report the experience contributed to their learning and helped them to gain greater awareness and acceptance of people of diverse backgrounds, cultures, and races. By being aware of the uniqueness of FGCS and identifying strengths-based constructs that contribute to college integration and retention, institutions of higher education can promote diversity as well as inclusivity when responding to the unique needs of first-generation students as newcomers to the college environment more effectively.

Theoretical Framework

The theoretical framework conceptualized to represent factors and processes that contribute to the college transition experience of FGCS must capture its multilayered and

dynamic qualities. Thus, considering concepts related to Vincent Tinto's theoretical model pertaining to student departure and retention and a strengths-oriented perspective may provide further insight into the college experience of FGCS (Joseph & Linley, 2006; Lopez & Gallagher, 2009; Seligman & Csikszentmihalyi, 2000; Tinto, 1975). Explanations for how certain first-generation students are able to succeed despite numerous odds against them may differ depending on the context because factors and processes that contribute to each student's experience may vary according to a specific combination of personal attributes, environment, and relationships with other people. The constructs of resilience and personal growth initiative, multilayered and multidimensional, help explain the intricate nature of the college transitional process (Inkelas, et al., 2007; Masten, 2014; Ramos-Sanchez & Nichols, 2007; Tinto, 1975). The distinctive characteristic that separate FGCS from other students is that they do not have access to the "benefit of parental experience to guide them, either in preparing for college or in helping them understand what will be expected of them after they enroll" (Riehl, 1994, p. 15). This disadvantage increases their chances of leaving college before degree completion.

Research strongly indicates unmet needs related to the lack of connection and engagement to the educational institution, insufficient financial support, and poor academic performance may contribute to a student's decision to drop out or transfer to another institution within the first year of college (Campbell & Mislevy, 2013; Gardner & Holley, 2011; Long et al., 2000; Mehta et al., 2011; Tinto, 1975). No single reason may fully explain the student retention and attrition process since a combination of factors plays a role and influences the retention of FGCS. For instance, students' personal aspirations and motivations, such as their intent to graduate and the number of hours they spend studying, likely influence their persistence in college. At the same time, their academic abilities and previous academic preparation likely

affect their grade point average, adjustment period, and long-term performance. In addition, the quality of interactions students have with family, peers, and faculty may influence whether they persist in college or leave college prematurely (Riehl, 1994; Tinto, 1975). On top of the factors already mentioned, certain demographic variations, such as gender, race and ethnicity, place of residence, and socioeconomic status, seem to matter and influence retention (Jehangir, 2010; Naumann et al., 2003; Sheheen, 1988; Stephens et al., 2014; Tinto, 1975; Ward et al., 2012). Personal attributes and characteristics, educational backgrounds, supportive relationships, and growth-oriented interactions matter in describing and researching the integration and retention of FGCS, as conceptualized and illustrated in Figure 1.
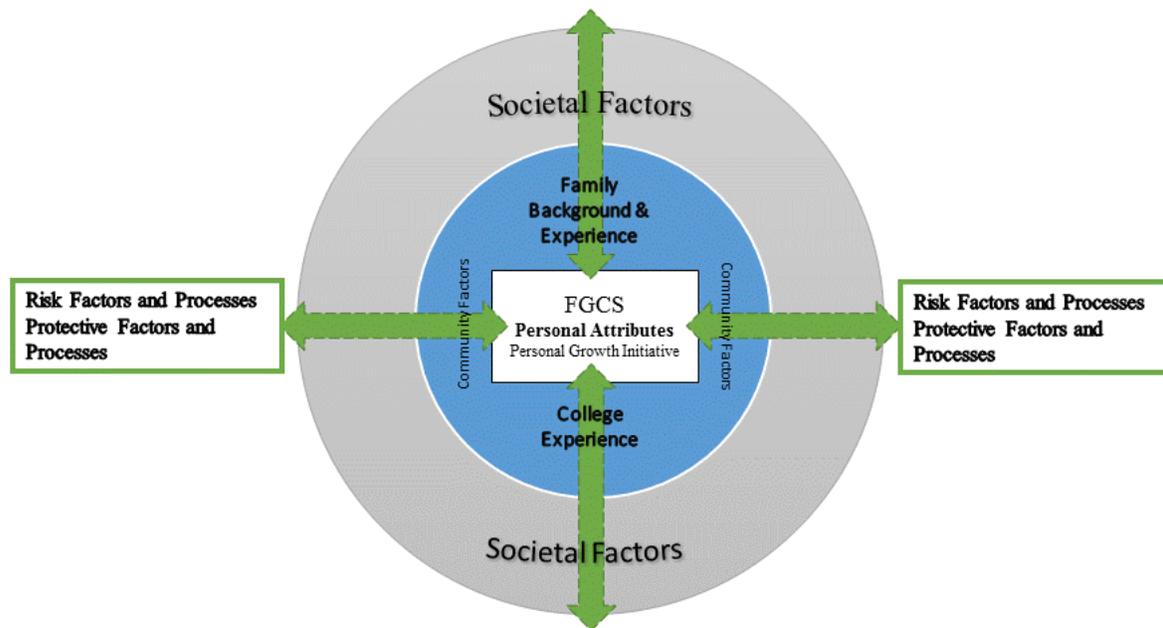
Figure 1. Hypothesized theoretical framework contributing to student development and resilience. The overlying circles represent the internal and external factors and processes that contribute to student development and resilience. The double-sided arrows represent the existence of potential risk and protective elements that may affect a student.

Theoretical Model of Dropout Behavior

Vincent Tinto's (1975) Theoretical Model of Dropout Behavior accounts for multiple factors and provides insight on attrition and retention of FGCS. Tinto explains that the process and interaction that occurs between the individual (student) and institution (college) is a critical component to examine when determining the factors that lead to the occurrence of dropout. Influenced by Durkheim's Theory of Suicide, which suggests that individuals are more likely to complete suicide when there is "insufficient moral (value) integration and insufficient collective affiliation" into society, the student departure model posits the college environment represents a social system that is comparable to society, in which dropping out is similar to suicide (Tinto, 1975, p. 91). According to the model, insufficient integration into the academic and social system within the college setting results in lower commitment and engagement and increases the likelihood of students dropping out of college. Signs of insufficient student integration may appear as the student having little or no interaction with other persons on campus and experiencing a sense of misalignment with the prevailing collective value system of an institution (Tinto, 1975).

The Theoretical Model of Dropout Behavior also stresses the importance of having both academic and social integration since the two domains are separate and not the same. For instance, doing poorly in class and getting low grades may be an indicator of insufficient academic integration, whereas failing to follow social rules and expectations for proper conduct, such as fighting, stealing, and cheating, may be signs of insufficient social integration (Tinto, 1975). In addition, students must find an appropriate balance between the two components since both the academic and social life of an institution is important to dropout prevention. The student's background characteristics, personal attributes and motivations, career, and educational

aspirations also need consideration since they may help to increase or decrease the likelihood of student attrition. Factors such as individual abilities, gender, race and ethnicity, high school experiences, residency standing, and socioeconomic status also have significance in an integration and resilience model (Gardner & Holley, 2011; Tinto, 1975).

Furthermore, information about a student's background may help to explain preferences for a particular type of institution. For example, the family's educational and financial background may influence whether the student attends a private or public institution and what educational and career path he or she follows. Background characteristics and personal attributes also influence students' academic goals, institutional expectations, and levels of institutional commitment. A student's adjustment to the academic and social systems at a particular college likely connects directly to his or her persistence. The Theoretical Model of Dropout Behavior suggests that a student's level of integration into an academic environment also relates to his or her level of commitment to a particular institution and desire to graduate (Tinto, 1975).

Positive Psychology and a Strengths-Oriented Perspective

Concepts connected to positive psychology and a strengths-oriented perspective have contributed to a greater understanding of FGCS and the college transitional process. Prior to the existence of positive psychology and strengths-based concepts, the medical model regulated the field of psychology and shaped beliefs about humanity. The medical approach focused on identifying and correcting human pathology and ailments (Seligman & Csikszentmihalyi, 2000). Abraham Maslow addressed the limitations of magnifying human weaknesses when he suggested that the field of psychology overlooked positive human virtues and full potential by concentrating too much on people's shortcomings, a concept he discussed in his book entitled *Motivation and Personality* (1954) in which he introduced the term *positive psychology*. The

concept led more people to question the deficit-oriented view (Lopez & Gallagher, 2009; Seligman & Csikszentmihalyi, 2000). Research and literature inquiring about what produces healthier people, creates better societies, and makes life meaningful grew in prominence with works from Gordon Allport, Victor Frankl, Williams James, Karl Menninger, and Carl Rogers (Diener, 2009; Seligman & Csikszentmihalyi, 2000). The shift away from human pathology coincided with rising research interests on resilience and appeared in early research conducted by Werner and Smith (1992), Rutter (1987), and Garmezy (1991).

The new perspective connected to strengths and positive human qualities did not take hold in the 1950s and 1960s when it was first introduced (Lopez & Gallagher, 2009; Seligman & Csikszentmihalyi, 2000). Only with the help of Martin Seligman forty years later did strengths-oriented concepts associated with positive psychology acquire a more formal role. Martin Seligman extended strengths-based concepts beyond its original association to positive psychology and advocated for the discipline of psychology to be more attentive to positive virtues and potentials in people and society (Lopez & Gallagher, 2009; Rennie, 2008; Seligman & Csikszentmihalyi, 2000). In addition, he helped to develop a network of researchers and practitioners to continue exploring human strengths and potentials (Diener, 2009).

The construct of resilience also emerges around this same time. The strengths-based concept refers to people's ability to maintain, adapt, or return to a healthy mental state despite encountering adversity (Herrman, Steward, Diaz-Granados, Berger, Jackson, & Yuen, 2011). Resilience involves a time- and context-specific process that may help to explain the integration and overall college experience of FGCS attending a private university. Early research on resilience uses a narrow definition of resilience that mainly attends to personal characteristics and attributes. Later resilience research uses a broader definition and considers the influence of

systems, which accounts for the multiple protective and risk factors that exist within individuals, families, communities, and cultures (Herrman et al., 2011). The modern theory of resilience recognizes these sources and factors may appear to act independently; however, closer examination reveals the relationship is more complex—that personal, biological, and environmental-systemic factors may interact with each other and affect the outcome.

In long-term studies about resiliency across different cultures and nationalities, researchers found that 50% to 70% of individuals exposed to extremely high levels of stress were able to lead prosperous lives (Benard, 2007). The studies included children who lived in foster homes, participated in gangs, had teenage parents, had family members with substance abuse problems, lived with caretakers with mental illness, grew up in poverty, and had traumatic experiences like sexual abuse (Benard, 2007; Garmezy, 1991, Masten, 2014; Rutter, 2012; Werner & Smith, 2001). Researchers found that even those individuals who had multiple risk factors still possessed the potential to overcome challenges and lead successful lives. In addition, resiliency research findings were consistent with other human development research and theory, emphasizing people's natural ability to grow and develop in a variety of circumstances and environments (Benard, 2007).

Qualities that promote resilience include having competency to interact socially, being able to solve problems, having a sense of autonomy, possessing a sense of purpose, and believing in a bright future (Benard, 2007; Masten, 2014; Rutter, 2012; Werner & Smith, 2001). Human beings have the ability to learn and grow from new experiences since they are predisposed to be flexible and resilient. The theoretical model of the college transitional process suggests that all students, including FGCS, possess the potential to integrate into a new environment successfully and persist to achieve their goals. Resiliency exists in everyone (Benard, 2007).

Definitions of Key Terms

Anderson and Goolishian (1988) believe that human systems are engineers of language and originators of meanings. Through everyday discourse and interactions, human beings invent and re-invent definitions of words and phrases that help particular words acquire new meaning in different contexts and situations. The possibility of shifting the meaning of words can be advantageous in certain circumstances since it permits the evolution of the definitions of a word or phrase to align with the surrounding contexts. However, evolving definitions can also create confusion and uncertainty since no single word can be complete, clear, and undebatable. Therefore, the definitions of *resilience*, *personal growth initiative*, and *first-generation college students* may vary according to different researchers, perspectives, and contexts. In this paper, the researcher will use the key words and phrases below in the following manner.

First-generation College Students. Some researchers describe FGCS as students whose parents did not attend college, whereas other researchers are more precise and clarify that neither parent of FGCS received a baccalaureate degree (Bui, 2002; Gardner & Holley, 2011; Ward et al., 2012). The distinction is important since the number of FGCS may decrease or increase according to whether the definition applied is narrow or broad. A narrow form of the definition restricts the number of students who fit the criteria, whereas a loose definition will allow a larger number of students to fit within the definition (Ward et al., 2012). In this study, *first-generation college students* refers to students whose parents did not complete a baccalaureate degree, including students whose parents have some college experience (Gardner & Holley, 2011; Ward et al., 2012).

Non-first-generation College Students. The term *non-first-generation college students* is used to describe the counterparts of FGCS. For clarification and the purpose of this study,

NonFGCS refers to students who have at "least one parent who had completed a college degree" (Ramos-Sanchez & Nichols, 2007, p. 6).

Resilience. Researchers from different disciplines have studied the construct of resilience and provided a variety of operational definitions. The definition used by different researchers varies according to their perspectives and time period (Benard, 2007; Connor & Davidson, 2003; Liebenberg & Ungar, 2009; Werner & Smith, 2001; Willoughby, Brown, King, Specht, & Smith, 2003). Early research more likely uses a narrow definition of resilience that focuses on personal attributes and characteristics that helped individuals recover after experiencing trauma (Master, 2014; Rutter, 2007). Later research and definitions reflect systems concepts and language and account for multiple layers and influential forces that assist a person in persisting and thriving after encountering adversity by considering the person, family, culture, and community (Herrman et al., 2011; Liebenberg, Ungar, & LeBlanc, 2013; Rutter, 2007; Schoon, 2006). The definition of *resilience* for this study refers to the "process of negotiating, managing, and adapting to significant sources of stress or trauma. Assets and resources within the individual's life and environment facilitate this capacity for adaptation and 'bouncing back' in the face of adversity" (Windle, Bennett, & Noyes, 2011, p. 2).

Protective and Risk Factors. Inherent to the discussions involving the construct of resilience are the terms *protective factors* and *risk factors,* which emerges from early resilience research studies (Rutter, 2007; Werner, 2012). This study uses the definition provided by Specht et al. (2003) and defines *protective factors* as the "circumstances—personal qualities or supports—that protect an individual from risk," which may originate from personal attributes, family interactions, and community relations (p. 8). In certain instances, researchers may use the term *protective processes* to describe the dynamic and inter-relational nature of resilience.

Protective processes refer to how protective factors function and operate to help people shield themselves from negative outcomes (Specht et al., 2003). On the opposite end of protective elements are possible risk factors. This study uses Masten's (2001) description and defines *risk factors* as "actuarially based predictors of undesirable outcomes drawn from evidence that this status or condition is statistically associated with higher probability of a 'bad' outcome in the future" (p. 228).

Personal Growth Initiative. The concept of personal growth and the formal construct *personal growth initiative* (PGI) are important to explore and distinguish during critical adjustment periods, such as the transition from one academic year to the next. Robitschek et al. (2012) and Weigold, Porfeli, and Weigold (2013) offer descriptions of the construct of personal growth initiative that serve as the basis of this study's research definition. This study defines *personal growth initiative* as a "developed set of skills for self-improvement and includes cognition and behavior that a person carries into life experiences" (Robitschek et al., 2012, p. 274) that are related to the "the intentional and active desire to grow in areas that are salient for a person" (Weigold, Porfeli, & Weigold, 2013, p. 1396). Whereas personal growth may occur naturally without awareness, the PGI construct requires conscious efforts and intentionality. The individual must deliberately be proactive, develop strategic plans, and take actions that align with established goals (Robitschek, 1998; Robitschek et al., 2012).

Assumptions and Limitations

This study relies on the underlying belief that it is possible to measure group traits and characteristics and apply the information to inform the research related to FGCS. However, the actual characteristics and make-up of a specific population of FGCS remains diverse. Previous research tends to use the phrase *first-generation college students* loosely when comparing

students attending different types of institutions. Relying on a few identifiable traits to describe groups of FGCS accurately may be misleading since the groups are not homogeneous. Even if researchers use tentative phrases such as "more likely" when referring to demographic information about first-generation students, the setting and culture of the institution may affect the FGCS group composition (Jehangir, 2010, p. 14). Each population of FGCS attending different college campuses likely has unique group identities, characteristics, and support needs due to within-group variation, limiting the generalizability of any findings (Ramos-Sanchez & Nichols, 2007; Ward et al., 2012).

In addition to presenting concerns related to within-group diversity and generalizability, the existence of multiple definitions and categories of FGCS makes comparing and reviewing available research challenging. Research involving the first-generation student body has no single image due to sampling variation and different definitions applied. The researcher uses a cross-sectional study that relies on data collected through a stratified random sampling online survey that is accessible to a limited number of students attending a private university. Therefore, the number of first-generation students available to complete the survey is fewer than 1,000; whereas, the total number of students is greater than 8,800. The possibility exists that students who complete the survey (especially FGCS) may be fewer in number and be different from the sample population who receive the survey (Alreck & Settle, 1995; Ramos-Sanchez & Nichols, 2007; Ward et al., 2012). Furthermore, the number of FGCS and Non-FGCS who elect to complete the survey may not be comparable. Even though students may share some common experiences and obstacles, a low response rate limits generalizability since the small sample of respondents may possess unique qualities and experiences that are not representative of the larger population (Jehangir, 2010; Long et al., 2000; Ward et al., 2012).

Along with many other studies, this study uses concepts and constructs that explore possible variables that affect FGCS. However, definitions of resilience and PGI are inconsistent and vary slightly amongst research studies. In addition, research about resilience and PGI assumes these constructs function as independent variables and are capable of being measured accurately using certain scales. However, different assessments and instruments exist to measure the same constructs, which may lead researchers to wonder which tool is the most accurate. In actuality, these constructs may be dynamic, inter-related, and context-specific which limits the degree of confidence in the results. For instance, researchers provide a broad list of specific protective and risk factors. At the same time, they urge readers to consider context, since an identified strength that promotes resilience in one setting may also function as a risk in a different environment. Curiosity, for example, may function as a protective element when it helps students to find resources. However, curiosity may also correspond to increased likelihood of risk-taking behaviors that may be harmful in the wrong context and environment (Connor & Davidson, 2003; Liebenberg & Ungar, 2009; Masten, 2014).

Dominant prevailing beliefs typically shape societal views and expectations about appropriate and inappropriate behaviors, positive and negative adaptation, and normal and abnormal characteristics. Most of what researchers and scholars understand about the nature of human beings and developmental theories is based on the beliefs and values of the dominant culture, which Bottrell (2009) describes as "usually white, middle-class" people (p. 324). Protective factors that promote resilience and negative labels associated with risk factors may change according to context and culture. Therefore, researchers cannot ignore that personal beliefs and values likely influence perspectives about knowledge and perception related to risk and protective factors and the overall construct of resilience (Liebenberg & Ungar, 2009).

Summary

The quality of early connections and interactions with the college campus and how well students transition from one academic year to the next in the college environment likely affect their future success. Unlike their non-first-generation student peers, FGCS must overcome additional obstacles beyond ones that are commonly expected. Due to the lack of data from their own population of first-generation students, most institutions of higher education remain unaware of the unique needs of their FGCS population and are unable to address these needs effectively. This study seeks to gain further insight on FGCS by evaluating resilience, measuring PGI, and collecting demographic characteristics from students enrolled at a private university in the southwestern United States. By using a strengths-oriented perspective, the researcher compared resilience, PGI, and demographic characteristics in FGCS and NonFGCS and accounted for academic classification.

CHAPTER TWO: LITERATURE REVIEW

As the number of people who attend college grows and the characteristics of the student population change, research on first-generation college students (FGCS) is steadily increasing. As a result, more studies are examining the experiences of FGCS in undergraduate and graduate programs (e.g., Bui, 2002; Gardner & Holley, 2011; Long et al., 2000; Naumann et al., 2003). Consequently, educators are more familiar with common barriers and difficulties that FGCS encounter. In general, first-generation students tend to come from a lower socioeconomic status, receive less financial and emotional support from their families, struggle to balance full-time school work with job responsibilities, participate less in extracurricular activities on campus, and interact less with faculty members (Gardner & Holley, 2011; Soria & Stebleton, 2012; Ward et al., 2012).

Despite the many challenges, a greater number of FGCS are entering colleges and universities. The National Center for Educational Statistics estimates that about 50% of students fit the definition of a first-generation college student since they do not have a parent or guardian who graduated from college (Choy, 2001). In addition, FGCS are more likely to be students of color, have a minority status, and lack educational cultural capital that contributes to their educational achievement and success. FGCS do not have the benefits of access to information from parents who completed a baccalaureate degree, which may make their college transition period more difficult (Martin Lohfink & Paulsen, 2005). Due to their parents' limited knowledge about the college experience, many FGCS do not receive the educational guidance and emotional support from family members that non-first-generation college students (NonFGCS) commonly experience. In some cases, first-generation students experience a form

of resentment from family members who do not understand the time commitment required and importance of attending college (Ward et al., 2012).

First-generation College Students

First-generation students are diverse with a broad range of characteristics (Ramos-Sanchez & Nichols, 2007; Ward et al., 2012). As a group, they share some common obstacles associated with not having a parent with a college degree and are considered an "at risk" group because they are more likely to leave college without completing their degrees (Gardner & Holley, 2011; Ramos-Sanchez & Nichols, 2007). FGCS often report having to navigate between multiple worlds, wrestling with opposing internal values and experiences, and balancing the responsibilities of home and school, resulting in conflictual feelings as they try to negotiate both familial and educational obligations. For example, the duty of caring for younger siblings may conflict with the need to be involved in activities in college (Ramos-Sanchez & Nichols, 2007; Ward et al., 2012).

Since many FGCS do not have much exposure to the college environment beforehand, they may experience greater transitional difficulties and disorientation. The transition to college and adjustment process may be challenging for first-generation students as they negotiate among multiple worlds, differing perspectives, and conflicting roles and expectations. Sometimes the "caretaker, worker, daughter, and student" roles compete against each other (Jehangir, 2010, p. 3). Without familial support and parental guidance, trying to master a variety of new expectations within a short time frame may seem overwhelming. For example, many FGCS must adapt to a different style of speaking, learn how to interact with faculty, and manage work and study time wisely. As a result, FGCS have a greater risk of dropping out of the academic environment prior to the second year of college (Choy, 2001; Ishitani, 2016; Soria & Stebleton,

2012; Ward et al., 2012). Therefore, investigating strengths-based constructs such as resilience and personal growth initiative (PGI) in FGCS may help to improve attrition rate.

Similarities and Differences of FGCS and NonFGCS

Investigations into the similarities and differences between FGCS and NonFGCS indicate that pre-admission characteristics likely influence their college adjustment and experience of distress (Tinto, 1975; Ward et al., 2012; Woosley & Shepler, 2011). Results from a longitudinal study examining 25,000 eighth-grade students suggest that the probability of students dropping out of high school is five times greater when their parents did not have a high school diploma (Riehl, 1994). Parental education continues to be a contributing factor in college and plays a role in a student's educational attainment. Children whose parents have a college degree are likely to have families with higher income, educational achievements, and opportunities to attend colleges that are more selective (Riehl, 1994). This pattern does not hold true for FGCS, and they are more likely to seek out less competitive and selective institutions of higher education (Riehl, 1994; Ward et al., 2012).

Data obtained from the Postsecondary Educational Transcript Study of the National Education Longitudinal Study of 1988 about FGCS revealed some troubling patterns. The longitudinal study defined FGCS as "those who had at least one parent with some college education, but neither parent attained a bachelor's degree" (Chen & Carroll, 2005, p. iii). Of those FGCS who entered postsecondary education, only 24% obtained a bachelor's degree by the year 2000 in contrast to NonFGCS with 68% completing their bachelor's degree. Approximately 43% (4 in 10) FGCS left college before they completed a degree (Chen & Carroll, 2005).

Regardless of their parents' education, both groups of students report parental encouragement and support influenced their decision to attend college. However, comparison

data suggest FGCS experience less parental support in the decision-making process than NonFGCS. In addition, parents of FGCS are less likely to communicate and emphasize the importance of completing a degree. Furthermore, students' perceptions about themselves and their capabilities may also differ and ultimately affect their performance, since they often report lower self-confidence and expect to have lower grades and achieve less (Sheheen, 1988; Ward et al., 2012; Woosley & Shepler, 2011). Findings from a study of 2,190 first-year students at Indiana State University indicate FGCS usually have lower test scores and grade point averages than NonFGCS prior to entering college. When first-generation students predict their grades for the first-semester and report their intent to earn a degree, their responses reveal that they have lower academic aspirations, lower grade point averages, and lower degree ambitions when compared to other students (Gardner & Holley, 2011; Riehl, 1994).

Since many FGCS are also students of color from lower income families, the campus atmosphere may be different from their home environment (Campbell & Mislevy, 2013; Jehangir, 2010; Long et al., 2000; Sheheen, 1988; Ward et al., 2012). Compared to NonFGCS, first-generation students are more likely to speak a different language from English at home. Furthermore, studies find many first-generation students report feeling as if they are living in "divided worlds" and experiencing "a sense of isolation and marginalization" in college (Jehangir, 2010, p. 4). Therefore, the experiences of FGCS attending a private university that is predominately white may differ significantly from those attending a diverse public institution.

College Integration, Retention, and Attrition

Several researchers have theorized about the process of college student integration and adaptation and the importance that it has on student retention (Braxton, 2002; Tinto, 1975). In the 1970s through the early 1990s, scholars and practitioners characterized the passage through

college and conceptualized student retention as a stable, linear, and predictable model. Within the past decades, research conducted on retention and persistence applied the dichotomous perspective and mainly focused on the physical presence or absence of a student from a specific institution. Researchers and theorists typically depicted retention as a dichotomous concept, using terms such as "here or not here, drop-out or not, retained or not, persisted or not" (Campbell & Mislevy, 2013, p. 468). However, this is a limited perspective that may result in misleading information (Tinto, 1975).

Vincent Tinto (1975) reminds researchers of the importance and necessity of clarifying and using appropriate definitions to avoid the tendency to "lump together" different types of "leaving behavior that are very different in character" (p. 89). He stresses the significance of distinguishing between students who voluntarily leave a particular college to transfer to a different institution from those students who permanently leave or dropout of postsecondary education completely. How a particular study defines, collects, and reports leaving behaviors and dropout data influences the usability and accuracy of the information obtained from the research.

Numerous models and theories, including Tinto's theory about student departure and retention, have sought to explain the college integration experience and as to whether "a student persists or not" (Campbell & Mislevy, 2013, p. 468). Tinto's theory, considered an influential, landmark model, inspired several researchers to examine student retention and persistence more closely. Overall, researchers found that on-campus engagement and support contribute to student retention and success. Helping students connect to others in college and participate in campus activities may deter premature educational departure. Thus, part of the university's role

and responsibility should be to help students integrate into college and transition from one year to the next successfully, both academically and socially (Tinto, 1975; Ward et al., 2012).

Modern researchers account for various types of college departures and broaden their attention past the point of attrition by exploring diverging paths to degree attainment. That is, scholars and practitioners are noticing that it is common for students to drop out from one institution and enroll in a different one (Adelman, 2004; Campbell & Mislevy, 2013; Hoyt & Winn, 2004). To obtain a more precise understanding of why students leave college and comprehend retention and attrition rates accurately requires examining different types of leaving behaviors and investigating noticeable discrepancies. For example, the national average indicates that one in five students attending a four-year college obtain their degree by transferring to a different institution. In addition, about 60% of students earn their undergraduate degrees by attending more than one institution of higher education (Adelman, 2004). In some cases, students have concurrent enrollment at two different institutions, such as taking classes at a community college and a four-year university at the same time. To describe the multifaceted pathways of college education, terms such as "double-dipping" and "swirling" appear in literature and new theories (Campbell & Mislevy, 2013, p. 468). With different pathways through college, descriptions capturing changing patterns result in a transition away from the linear model toward a more complex theory.

Demographic Characteristics Matter

Previous research indicates that both on-campus and off-campus social networks and perceptions of the college atmosphere play an important part in the experience of racial and ethnic minority students' adjustment and their overall sense of fit with their new surroundings, contributing to their long-term success (Baker & Robnett, 2012; Stieha, 2010; Tang et al., 2013).

The students' precollege experience, race and ethnicity, family income, and secondary school education likely influence their college experience (Jehangir, 2010; Sheheen, 1988; Ward et al., 2012). Racial composition within a college may also play a role in a student's attachment to a particular school. Minority students who attended predominantly white schools frequently reported "feelings of invisibility and discrimination from other students and members of the college community" (Baker & Robnett, 2012, p. 327).

The obstacles that different minority groups of students encounter may also vary according to their unique background and characteristics. Certain racial and ethnic groups may have to overcome other barriers and difficulties, not experienced by other minority groups, to obtain a college degree (Mehta et al., 2011; Naumann et al., 2003; Sheheen, 1988; Tang et al., 2013). For instance, African American and Latino/a students are more likely to come from lower socioeconomic backgrounds when compared to White and Asian students (Baker & Robnett, 2012). However, research suggests that African American and Latino/a students who participate in at least one campus club are more likely to enroll in college the following academic year. In addition, certain differences within each minority group also play a role in student adjustment and retention. For example, whether an Asian American student acquired English as his or her first language may serve as a predictor of retention (Baker & Robnett, 2012). Students who speak a language other than English at home may have additional academic challenges to overcome. Tinto's theory of student departure relates to concepts of retention, resilience, and PGI since those who take initiative and obtain adequate support are more likely to integrate successfully into college and less likely to depart prematurely (Tinto, 1975).

The Evolution of Psychology and Perception of Human Pathology

The notion that individuals can be resilient, growth-oriented, and self-guiding did not always exist. For many years, the medical model that influenced prevailing beliefs about the fragility and limited nature of human beings guided the field of psychology. The medical model, sometimes also referred to as the "disease" model, viewed human beings as helpless creatures enslaved by both mental and physical afflictions. Practitioners, researchers, and theorists of the time focused on fixing biological defects, identifying areas of limitations and weaknesses, and diagnosing uncontrollable urges and instincts to treat various problems. Under this approach, human beings lacked the independence and capacity to change or overcome personal problems without the assistance of medical experts (Diener, 2009; Joseph & Linley, 2006; Lopez & Gallagher, 2009). When people encountered difficulties, they relied on medical experts to diagnose and treat their problems. Rather than viewing difficulties and problems as temporary and separate from people, the predominant view suggested that problems and people were bound to each other. Sigmund Freud, for instance, practiced under the medical model and focused on human pathology and deficits. Behaviorists, like Ivan Pavlov and B. F. Skinner, focused on eliciting responses by applying certain stimuli (DiGiuseppe & Tafrate, 2007). Therefore, the goal of treatment was to elicit certain responses and/or help people deal with their subconscious thoughts and feelings and uncontrollable instincts and drives.

After World War II, however, the perspective of the damaged human no longer aligned with the views of certain prominent psychologists and theorists. Influenced by humanistic psychology, Abraham Maslow and Carl Rogers, for example, began to ask how ordinary individuals were able to overcome great adversities to lead successful lives (Benard, 2007; Joseph & Linley, 2006; Seligman & Csikszentmihalyi, 2000). Other leading figures like Viktor

Frankl, Albert Bandura, Norman Garmezy, and Martin Seligman refocused their attention on

individual strengths, adaptive behaviors, and personal resiliency (Henderson, 2003; Joseph &

Linley, 2006; Masten, 2014; Seligman & Csikszentmihalyi, 2000). Underlying the new

perspective was the belief that human beings had the capacity to be flexible and adaptable, which

allowed them to survive hardships and continue to function competently (Bandura, 2002; Frankl,

1990; Garmezy, 1991; Rutter, 2012).

Emergence of Positive Psychology and Resilience Research

Positive psychology and resilience research co-emerged around the same time with both

recognizing that individuals could care for themselves, contribute to the welfare of others, and

improve society (Diener, 2009). The political climate of the time reinforced the growing interest

in the study of resilience. Influential figures like Mihaly Csikszentmihalyi, Norman Garmezy,

Emmy Werner, and Michael Rutter had personal experiences dealing with war, bombing, and

evacuations that contributed to their interest in studying resilience (Masten, 2014). Mihaly

Csikszentmihalyi, for example, recalled his childhood experience observing different adults in

wartime and wanted to know what qualities and strengths helped certain people to cope well and

inspire other people positively during World War II (Seligman & Csikszentmihalyi, 2000).

As research grew in the 1960s and 1970s, both short-term and long-term studies became

available (Rutter, 1987; Werner & Smith, 1992). In general, long-term studies about resiliency

across different cultures and nationalities found that 50% to 70% of individuals exposed to

adverse circumstances and high levels of stress were still able to lead prosperous lives (Benard,

2007; Werner & Smith, 2001). A longitudinal study conducted by Werner and Smith (2001)

explored human strengths, identified areas of achievement and success, and examined protective

elements that naturally exist in people and communities (Benard, 2007). However, the fact that

the number of cross-sectional resiliency studies outnumbered longitudinal studies caused some

researchers to worry that people may mistakenly believe that resiliency is a brief occurrence

instead of a multidimensional process (Werner, 2012).

When resilience research first began, the majority of work focused on children.

Researchers wanted to understand how groups of children who experienced abuse and neglect,

poverty, parents with schizophrenia, and other risks were able to overcome adversity and

traumatic events to lead such successful lives (Garmezy, 1991; Rutter, 2007; Werner & Smith,

2001). The first well-known longitudinal research conducted on the Island of Kauai in 1955

revealed that even with the presence of great risks and obstacles, people can survive and thrive

(Werner, 2012). Werner and Smith (2001) traced the lives of 505 people, who were born in

1955, and followed their progress until they reached 40 years of age (Earvolino-Ramirez, 2007;

Werner & Smith, 2001). As part of the study, the researchers identified factors and processes

that promoted resilience and allowed "high-risk" children to become successful adults (Werner

& Smith, 2001, p. 56). Despite the fact that all research participants encountered adversities and

lived in a similar environment, the quality of their adult lives varied. By using the natural history

method, investigators found that not all children who grew up in adverse conditions, such as

living in poverty or having a mentally ill parent, displayed severe problems as adults. Of those

who encountered multiple adversities, approximately one third of the children became

competent, successful adults. In follow-up studies conducted at 30 and 40 years of age, the

resilient cohort continued to demonstrate positive outcomes (Werner, 1995; Werner & Smith,

2001).

Common Risk and Protective Factors

The discussion about resilience is not complete without addressing risk and protective factors mentioned in early research. However, developing two separate lists of risk and protective factors that are accurate, consistent, and exhaustive may not be possible since the categories may overlap, reflect cultural and personal values, and lack complete objectivity. Due to cultural variations, risk elements and protective factors may be inconsistent nationally and internationally because of different belief systems (Masten, 2014; Ungar, 2013; Windle et al., 2011). In addition, certain personal characteristics may not function in the same way under different environments. For example, racial and ethnic minority status, parental and caretaker factors, family components and dynamics, and neighborhood variables may affect the outcome and influence the overall picture (Masten, 2014). Depending on the specific combination of variables in the particular circumstance, the individual's chances of obtaining a positive outcome may vary, possibly increasing or decreasing. In many instances, resilience researchers make inferences and judgements about how a factor may affect a person's life in order to categorize it as a risk or protection (Masten & Powell, 2003).

The main distinction to remember is that risk factors seem to increase the chances of a negative outcome, while protective factors tend to enhance the likelihood of a positive outcome. For instance, children who grow up in a situation that threatens their development of a healthy, positive attachment with a primary caretaker or guardian have increased risks. Living with a parent with a serious mental illness, such as schizophrenia, may increase the chances of a negative outcome later in life (Masten, 2014; Rutter, 2012; Werner, 2012). Experiencing extreme forms of life stressors, such as growing up in starvation, living through war, or witnessing a bitter divorce between parents are also potential risk factors. In addition,

unfavorable life circumstances that increase adversity such as living in poverty, coming from a low socioeconomic background, or having teenage parents contribute to stress and are categorized as risk factors (Masten, 2014; Seligman & Csikszentmihalyi, 2000; Werner, 2012).

Similar to the list of risk factors provided above, a variety of protective factors may promote resilience and contribute positively to a person's life. In most cases, factors that promote resilience are likely to fit one of three broad categories—personal characteristics, relationships with others, and context and environment (Garmezy 1991; Masten, 2014; Ungar, 2013). Personal attributes that may function as protective factors may include curiosity, intelligence, determination, optimism, or simply a personality that appeals to other people. In addition, helpful relationships with others, such as supportive mentors, nurturing caregivers and guardians, and positive peers, may also cushion against negative life stressors. Furthermore, the person's context, culture, and environment, including access to resources and opportunities, belief in religion and spirituality, and community cohesion and connection, may also act as protective elements (Connor & Davidson, 2003; Herrman et al., 2011; Masten, 2014; Rutter, 2007; Ungar, 2013).

Resilience and Resiliency Research

For decades, researchers in a variety of disciplines have attempted to define and describe the construct of resilience. Most definitions originated from the studies of individuals who had experienced traumatic events, dealt with extreme stress, or encountered adversities (Bottrell, 2009; Masten, 2014; Werner & Smith, 1992; Windle et al., 2011). In many cases, people used the terms *resilience* and *resiliency* interchangeably and believed they were the same construct. However, the two terms are actually different and distinct from each other. Whereas resilience is

the "transactional process of relation between individual and environment" as part of the coping process, resiliency is a "dispositional trait of personality" (Ostrowski, 2014, p. 13).

The term *resilience* emerged in the 1950s due in part to the parallel longitudinal studies of Werner and Smith (2001) and Garmezy (1991). Whether a study uses the term *resilience* or *resiliency* to describe the construct may serve as an indicator of different waves of resilience research (see Table 1 for a description of four waves of resilience research). Early stages of resilience research tended to approach the topic of resilience from an individualistic mainstream perspective (Masten, 2014). Review of early definitions revealed that individual and personal character traits were at the center of attention, placing the emphasis on *resiliency*. Therefore, early research and available definitions focused on personal traits such as cognitive functioning, intelligence, and biological predisposition that supported positive adaptation (Garmezy, 1991; Herrman et al., 2011; Rutter, 2012).

Most early studies that focused on risk factors assumed risk was the norm and resiliency was rare. Investigators assumed resiliency only existed in a few individuals since it required special traits. However, as research continued, investigators noticed the large number of people who were able to defy the negative odds against them when they overcame extreme tragedies, eventually leading healthy, successful lives (Benard, 2007; Masten, 2014; Rutter, 2007; Seligman & Csikszentmihalyi, 2000; Werner, 2012). Beliefs about the rarity of resiliency dissipated with new research findings, which indicated that resilience characteristics were not extraordinary, unusual, or certain and may lay dormant within a person (Grotberg, 2003; Son Hing, 2013). These latent resilience qualities would only become active when situational or environmental challenges and stressors trigger them, allowing people to become aware of their strengths as they overcame obstacles (Garmezy, 1991; Masten, 2014; Rutter, 2012).

The word *resilience* in later years extended beyond individual characteristics to include interactions and processes that help a person recover from adversity to a prior state of functioning (Edward, 2005). Modern definitions of resilience have a sense of a "collective experience" (Bottrell, 2009, p. 322), which may be driven by dynamic "processes or mechanisms" that occur over time (Herrman et al., 2011, p. 260). Definitions of resilience continue to include some type of successful adaptation or the ability to "rebound" and "spring back" (Garmezy, 1991, p. 463). However, conceptualization of how the process occurs and what elements are involved continues to evolve in contemporary research.

Table 1

Four Waves of Resilience Research Conceptualization

First wave
Focused on identifying, measuring, and defining risk and protective factors
Resilience researchers were more "descriptive" oriented

Second wave
Focused on "how" protective and risk factors worked and tried to find strategies to increase the likelihood of positive human development
Resilience researchers were more "process" oriented

Third wave
Introduced new initiatives and interventions to test theories and ideas intended to support and improve resilience
Resilience researchers examined processes associated with resilience and studied different factors that may help to promote resilience

Fourth wave
Identified as the most recent wave
Materialized with available technology and its potential application
Resilience researchers use new knowledge and medical technology to explore the construct's connection to neuroscience, genetics, and systems theories to study genetic predisposition, contextual influences, and "adaptive systems" in people and communities

Note. The focus of resilience research has evolved over the years and commonly referred to as four waves. Each wave reflects a new phase of understanding and enhances prior knowledge. Adapted from *Ordinary Magic: Resilience in Development* (pp. 6-7), by A. S. Masten, 2014, New York: The Guilford Press.

The latest wave of resilience research uses new technology available in medicine to explore the topic. Investigators want to know if human biology and psychology prepare people to adapt and evolve successfully. Human physiology equips people with the innate ability to be flexible and resilient. The brain's ability to create new cells based on learning and new experiences allows people to continue developing and transforming throughout life (Benard, 2007; Masten, 2014).

Results from resiliency research align with human development research and theoretical perspectives, which emphasize people's natural ability to grow and develop in an appropriate context and environment (Benard, 2007). Qualities associated with "resilient" individuals include having competency to interact socially, being able to solve problems, possessing a sense of autonomy, and believing in a purpose and bright future. Present-day resilience inquiry also supports that resiliency exists naturally in everyone (Benard, 2007; Masten, 2014; Rutter, 2007; Schoon, 2016). Under stressful situations, resilient people continue to demonstrate "functional adequacy" even with the existence of "interfering emotionality" (Garmezy, 1991, p. 466).

Resilience and Personal Growth Initiative in FGCS

Although the total body of research on FGCS has increased over the years, few studies have specifically examined resilience and intentional personal growth. This current research explores FGCS through a strengths-oriented viewpoint by comparing them across academic classifications to their non-first-generation student peers on resilience, PGI, and demographic characteristics, accounting for the students' personhood, family, community, and culture (Herrman et al., 2011; Irlbeck, Adams, Akers, Burris, & Jones, 2014). Thus far, research on FGCS indicates that the family, educational settings, and community, which may represent different facets of resilience and various components of PGI, play important roles in the lives of

FGCS (Bottrell, 2009; Masten, 2014; Tinto, 1975; Willoughby et al., 2003). Since the specific study of resilience and PGI in FGCS is relatively new, information is sparse as researchers are still trying to identify factors and processes that contribute most positively to the overall growth and resilience of FGCS (Riehl, 1994; Weigold, Weigold, Russell, & Drakeford, 2014; Wibrowski & Clauss-Ehlers, 2007).

Available strengths-oriented research suggests that similar factors and processes connected to personal strengths and attributes, cultural values, and formal and informal support networks may contribute to the development of FGCS (Tinto, 1975; Ward et al., 2012). For instance, students' abilities to solve problems, commitment to study, academic aspiration, and self-efficacy may affect their college adjustment experience, transitional process, and future outcome (Bandura, 2002; Naumann et al., 2003; Riehl, 1994; Ward et al., 2012; Woosley & Shepler, 2011). In addition, students' cultures and value systems may also shape their identity, experiences, and way of viewing the world (Gardner & Holley, 2011; Tinto, 1975; Ungar, 2008). The unique combination of variables may influence students' overall experiences (Irlbeck et al., 2014). For example, some students may feel comfortable interacting with faculty and joining student organizations, while others may be hesitant and avoid engaging with faculty and other students (Gardner & Holley, 2011; Soria & Stebleton, 2012). While many colleges offer transition programs to help students acclimate to college life, not all students may elect to participate in available opportunities (Inkelas et al., 2007).

Some studies on FGCS suggest that they are less likely to interact with faculty and participate in college activities, which may lower academic and social engagement and increase risks of dropping out of college (Gardner & Holley, 2011; Ishitani, 2016; Riehl, 1994; Soria & Stebleton, 2012). For those students who have positive relationships with their peers and family

members, other protective factors and processes may be contributing to resilience and college

persistence (Irlbeck et al., 2014; Riehl, 1994). In general, however, studies involving FGCS

have found that underrepresented minority students from lower socioeconomic backgrounds may

not be academically prepared to meet college expectations, placing these students at a greater

risk of dropout (Choy, 2001). Furthermore, students who may not speak English at home and

those who must work to supplement their family's income may have higher risks of dropping out

(Gardner & Holley, 2011; Riehl, 1994). However, achieving academic success and obtaining a

college degree may still be possible for all students since positive qualities in individuals,

existing relationships, and available resources in the community and context mitigate the

exposure to risk factors (Irlbeck et al., 2014; Liebenberg et al., 2012; Stieha, 2010).

Since people's approach and views about the world, themselves, and adversities

contribute to the overall quality of their lives, exploring a strengths-based construct referred to as

PGI is also helpful (Masten, 2014; Robitschek, 1988; Specht et al., 2003). The degree to which a

student chooses to be proactive and approach life from a strengths-oriented perspective may

vary. The ability to adjust and transition in college, manage stress and adversities, and capitalize

on available opportunities to complete a degree relates to resilience and personal initiative

(Masten, 2014; Robitschek et al., 2012). Since PGI, as measured by the PGIS-II, is a "developed

set of skills" that consists of a cognitive (thinking) component and a behavioral (action-oriented)

component, it includes having personal awareness and being an "active agent" in one's own

personal growth and self-development throughout life (Robitschek et al., 2012, p. 274). The

amount of effort that individuals expend to seek out growth opportunities and take advantage of

them may depend on their skill level, which may range anywhere from little to high (Robitschek,

1998; Robitschek et al., 2012; Yakunina et al., 2013).

The construct of PGI is particularly relevant to the college student population and research of FGCS since it addresses "intentional self-change" (Robitschek et al., 2012, p. 276). Research related to PGI and the demonstration of growth-oriented thinking and behaviors extends to career and professional development. For example, some college students are more likely to seek out resources, take advantage of opportunities available to them, and demonstrate behaviors that reflect their strong need to succeed, personal motivation and determination, and desire for external rewards (Masten, 2014; Robitschek, 1998; Robitschek et al., 2012). The aspiration to obtain a bachelor's degree may go beyond the normal process of growth and relates to intentional and purposeful thinking, planning, and acting in anticipation of a future higher income. The U.S. Bureau of Labor Statistics (2015) reported that in 2014 the median weekly income for college graduates with at least a bachelor's degree was approximately $525 higher than high school graduates who did not have any college experience.

Intentional PGI aligns with the developmental-contextual model of resilience that takes into consideration the individual and surrounding context. Previous studies find that higher levels of PGI frequently connect to higher levels of emotional well-being (Hardin, Weigold, Robitschek, & Nixon, 2007). The concepts of resilience and PGI are pertinent to the study of FGCS in a college environment, since they may influence the adjustment and adaptation process. By accessing personal and external resources, FGCS work through difficult situations in the face of obstacles and challenges (Baker & Robnett, 2012; Riehl, 1994). If the student does not demonstrate resilience and PGI within the integration period and throughout the college experience, the likelihood of success diminishes and the chances for dropping out may be higher. Thus, investigation of both resilience and PGI in FGCS is important.

Summary

As the number of FGCS continues to increase in colleges and universities, considering their unique backgrounds and strengths may help to inform their experience with the college transition process. In general, first-generation students do not have the help of parents who can help guide them through college. Compared to NonFGCS, first-generation students are more likely to drop out of college before completing their degrees. In addition, they vary according to their demographic characteristics, pre-college academic preparations, and self-perceptions about themselves and their academic abilities. Exploring how strengths-based constructs such as resilience and PGI influence the college transition process and affect FGCS attrition may help current and future FGCS.

CHAPTER THREE: METHODOLOGY

Researchers have found that first-generation college students (FGCS) are more at risk of dropping out of college before completing their degrees, which negatively affects the students' earning potential and self-image, hurts the reputation of the institution, and decreases the ability of the United States to compete globally (Broad, 2011; Campbell & Mislevy, 2013; Sheheen, 1988). Prior studies indicate that pre-college characteristics and parental education place FGCS at a disadvantage, which may lead to their early departure from college. Since the majority of college students experience some kind of adjustment difficulties and emotional distress, the researcher decided to explore strengths-oriented constructs that may contribute positively to the adjustment and adaptation process. The goal of the study was to learn how strengths-based constructs, such as resilience and personal growth initiative (PGI), manifested in FGCS in different academic classifications, from their first year to their senior year. The study accounted for the unique demographic characteristics of FGCS research participants attending a southwestern private university and examined the sample population's age, gender, race and ethnicity, and socioeconomic status. In an effort to acquire data about resilience and PGI in FGCS, the researcher compared FGCS to non-first-generation college students (NonFGCS) and identified significant differences that existed between the two groups of students.

The intent of this study was to examine resilience, PGI, and demographic characteristics of FGCS by conducting a cross-sectional study through the collection of data from both FGCS and NonFGCS in different academic classifications. The application of a combination of measurement tools allowed the researcher to capture the research participants' unique data and demographic information, including their self-perceptions about their personal resources, relationships with other people, and connection to the larger community. The primary strategy

used in this study to detect the distinctive qualities of FGCS consisted of comparing them with their non-first-generation student peers, while accounting for years in college and academic classification. The researcher used an online survey to collect data from both first-generation and non-first-generation students attending a private university. To identify if significant differences existed, the researcher analyzed survey responses collected from all student participants. To measure resilience, assess PGI, and capture demographic information, the researcher created a survey that incorporated three rating scales and a questionnaire. The full survey consisted of the Connor-Davidson Resilience Scale (CD-RISC), Child and Youth Resilience Measure-28 (CYRM-28), Personal Growth Initiative Scale-II (PGIS-II), and a demographics questionnaire.

Research Questions

The following questions guided this research:

1. Do significant differences exist on the construct of resilience between FGCS and NonFGCS as measured by the CD-RISC and the CYRM-28? How do these differences manifest across academic classifications?

2. Do significant differences exist on the construct of personal growth initiative between FGCS and NonFGCS as measured by the PGIS-II? How do the differences manifest across academic classifications?

Research Hypotheses

The research hypotheses included the following:

H_a1. Significant differences will exist on the construct of resilience between FGCS and NonFGCS as measured by the CD-RISC and the CYRM-28. FGCS will score significantly lower on the resilience measurements than NonFGCS, with FGCS in

their first semester scoring lowest. There will be a positive relationship between

academic classifications and resilience scores.

H_a2. Significant differences will exist on the construct of personal growth initiative

between FGCS and NonFGCS as measured by the PGIS-II. There will be a

positive relationship between academic classifications and PGIS-II scores.

Research Design

Sampling Plan

The researcher used stratified random sampling to select research participants.

According to enrollment information and the Director of Quality Enhancement, the private

university had 8,857 undergraduate students on the twelfth day of class, which consisted of

approximately 955 FGCS. Since the number of FGCS was smaller than the number of

NonFGCS students (7,902), the researcher relied on stratification that existed naturally in the

FGCS population to guide in the selection of NonFGCS (Alreck & Settle, 1995). Therefore, all

FGCS enrolled at the university received an email invitation to participate in the research. Then,

a random number generator identified an equal number of NonFGCS to receive the same email

invitation. For example, if 955 FGCS and 7,902 NonFGCS attended the private university in the

fall of 2017, the Director of Quality Enhancement used a random number generator to select 955

NonFGCS in order to obtain an equal number of FGCS and NonFGCS. The process of

randomly selecting 955 NonFGCS also involved inviting an equal number of students within

each academic classification (strata as the FGCS) to obtain the same number of freshmen,

sophomores, juniors, and seniors.

Participants

The application of an online survey permitted a greater number of students to participate due to the ease of student access and convenience of an online survey (Urdan, 2010). At the time, the private university participating in the research had 10,033 part-time and full-time students (*The Chronicle of Higher Education*, 2016). Of the total number of undergraduate, graduate, and professional-school students, 59.2% were women. Race and ethnicity composition of the student population consisted of 72.5% *White*, 10.6% *Hispanic*, 4.8% *Black*, 2.8% *Asian*, 0.8% *American Indian/Alaska Native*, 0.3% *Native Hawaiian/Pacific Islander*, 0.5% with *Two or More Races*, 5.2% *Non-resident Foreign*, and 2.5% *Unknown*. The reported *Total Minority* was 19.7%, excluding students identified as *Race Unknown* and *Non-resident Foreign*. Enrollment information posted on the university website for the 2017 fall semester was similar to information reported in *The Chronicle of Higher Education* in 2016. The Office of Institutional Research's website indicated that the research institution had 9,011 undergraduate students in the 2017 fall semester, including 5,343 (59%) females and 3,668 (41%) males. The race and ethnicity composition consisted of 74 (0.8%) *American Indian/Alaska Native*, 284 (3.2%) *Asian*, 490 (5.4%) *Black/African American*, 20 (0.2%) *Hawaiian/Other Pacific Islander*, 1,214 (13.5%) *Hispanic/Latino*, 36 (0.4%) *Multi-Ethnic*, 418 (4.6%) *Non-Resident Alien*, 121 (1.3%) *Unknown Ethnicity*, and 6,354 (70.5%) *White*.

In the 2017 fall semester, the Director of Quality Enhancement invited all FGCS and an equal number of NonFGCS to participate in the survey using the Campus Labs survey platform. Online surveys, such as email surveys and Web-based surveys, had a variety of acceptable response rates (Sue & Ritter, 2007). Since fewer studies have specifically examined the response rates of Web-based surveys, limited information was available. Sue and Ritter (2007) estimated

that the typical response rate for Web-based surveys to be approximately 30%, with the response rates for email surveys ranging from 24% to 76%. Therefore, the researcher expected to collect 229 to 280 surveys from a population of approximately 955 FGCS and wanted to collect a similar number of responses from NonFGCS. In order to improve the rate of response for FGCS and NonFGCS in each academic classification (strata), the researcher provided a monetary incentive and collaborated with the Director of Quality Enhancement. Since the Director of Quality Enhancement oversaw student surveys for the university, students were more likely to respond to the survey due to the trustworthiness of the sender.

Measurement and Data Analysis

This study used a cross-sectional research design. Data were collected across academic classifications during the same time period. More specifically, an online survey containing items associated with Likert scale scores served as the measurement instrument. The researcher used a two-way analysis of variance (two-way ANOVA) to analyze scores both within and across primary constructs in order to test the difference between the two different groups of students previously described.

Measures (Instruments)

To date, researchers have not identified a single instrument that qualifies to serve as the "gold standard" for measuring resilience (Windle et al., 2011, p. 17). The study used different measurement tools in an effort to quantify similar constructs related to resilience, successful adaptation, and healthy personal development more comprehensively (Robitschek et al., 2012; Windle et al., 2011). For instance, multiple scales for assessing personal growth also existed (Robitschek et al., 2012). Selecting the most appropriate measurement instrument or combination of instruments required accounting for multiple factors that may influence the

unique student population at the private college. Since each instrument had its own strengths and limitations, this study used four measurements most appropriate to resilience research, considering the background of many FGCS and their minority status attending the private university (Windle et al., 2011). In addition to containing a demographics questionnaire, the online survey also incorporated two resilience measures to assess personal and cultural resilience and an "intentional" personal growth scale to assess essential skills that contribute to a person's ability to "capitalize" on available "growth opportunities" (Robitschek et al., 2012, p. 274). The online survey consisted of the CD-RISC (10-item), the CYRM-28, the PGIS-II, and a demographic characteristics questionnaire.

 Connor-Davidson Resilience Scale. The CD-RISC is a second wave resilience assessment tested with clinical and general sample populations. The original scale includes 25 items that asked people to rate themselves using a scale from 0 (*not true at all*) to 4 (*true nearly all the time*) (Connor & Davidson, 2003, p. 78). Respondents select the best answer after considering their feelings within the past month. The instrument uses a variety of personal characteristics related statements, including items that ask people to self-report on their ability to *adapt to change*, to *take the lead in problem solving*, and to *handle unpleasant feelings* (Connor & Davidson, 2003, p. 78).

 The CD-RISC accounts for some of the multidimensional nature of the resilience construct. Kathryn Connor and Jonathan Davidson (2003) acknowledge resilience characteristics do vary according to the situation and context, including differences in age, gender, specific time, and culture. The CD-RISC may have a few shortcomings that stem from its inability to address the theoretical construct of resilience in detail and failure to explain the dynamic process of resilience comprehensively (Connor & Davidson, 2003; Windle et al., 2011).

A multitude of factors may contribute to people's adaptation and resilience, including their prior experiences of managing stressful events effectively or ineffectively. Therefore, the concept of resilience may simply be a "measure of successful stress-coping ability" (Connor & Davidson, 2003, p. 77). Connor and Davidson use the CD-RISC as a way to describe resilience numerically through self-reporting based on research involving clinical and general population samples (Connor & Davidson, 2003).

The construction of the original CD-RISC incorporated important ideas from other measurement instruments already in existence, including concepts related to hardiness, self-efficacy, goal development, endurance, and faith. The sample in the initial study consisted of the *general population* (577 people), *primary care outpatients* (139 people), *psychiatric outpatients* (43 people), *generalized anxiety disorder* research participants (25 people), and *PTSD* research participants (44 people) (Connor & Davidson, 2003, p. 78). Reliability of the measure was found to be strong, with a Cronbach's alpha for the general population of 0.89. Test-retest reliability generated an "intraclass correlation coefficient of 0.87," which showed consistency (Connor & Davidson, 2003, p. 78). Convergent validity of the CD-RISC was also reported as strong through a comparison analysis with other measurement instruments that supported higher resilience levels corresponded with greater extent of social support, lower level of perceived stress, and lesser amount of disability.

Research conducted by Laura Campbell-Sills and Murray B. Stein (2007), however, found that the original CD-RISC with 25 items had some unstable features that needed refining when they tested the instrument with two equivalent sample populations. The original 25-item instrument underwent some improvements, which produced a "10-item unidimensional scale that demonstrated good internal consistency and construct validity" (Campbell-Sills & Stein, 2007, p.

1019). The CD-RISC (10-item) had a Cronbach's alpha of 0.85, indicating good reliability.

When compared to the 25-item CD-RISC, scores on the 10-item version demonstrated strong

concurrent validity ($r = 0.92$), which suggested the shorter instrument was still able to maintain

the important aspects of resilience. When Windle et al. (2011) compared 15 resilience measures

on their psychometric properties, the CD-RISC was one of three instruments that received the

highest overall score. In addition, the measure obtained the highest rating possible for construct

validity. However, Windle et al. (2011) also noted certain limitations of the CD-RISC. For

instance, items within the scale seemed to focus mainly on individual qualities without

addressing different facets of the resilience construct. In addition, review of multiple databases

and articles to examine the measure did not generate enough theoretical information to support

strong content validity (Windle et al., 2011).

　　　　Child and Youth Resilience Measure-28. The CYRM-28 is an instrument developed

by professionals associated with the Resilience Research Centre (Liebenberg & Ungar, 2009).

The instrument examines resilience across multiple cultures and accounts for both universal

resilience that exists across cultures and specific cultural resilience that is unique to a particular

group of people (Ungar, 2008). Validation of the initial instrument involves a sample of 1,451

individuals between the ages of 13 and 23 from 11 countries who grew up in a variety of adverse

situations (Liebenberg & Ungar, 2009; Liebenberg et al., 2012). The instrument uses a five-

point scale that asks people to rate themselves from 1 (*does not describe me at all*) to 5

(*describes me a lot*), where the greater "presence of resilience processes" are associated with

higher numbers and scores (Liebenberg et al., 2012, p. 220).

　　　　The CYRM-28 asks participants a variety of questions, such as if they *have people to*

look up to, if they *know where to go to get help*, if *getting an education is important* to them, and

if they are *proud to be a citizen* of a particular country (Liebenberg et al., 2012, p. 222). In addition to providing an overall score of resilience, the CYRM-28 also contains three subscales. The three subscales measure different elements influencing an individual, including 11 items related to personal capabilities and resources, seven items related to important caregiving relationships, and 10 items related to contextual elements that promote a sense of connectedness and belonging (Liebenberg et al., 2012).

The internal reliability calculations, using Cronbach's alpha, for the three subscales range from 0.65 to 0.91. In addition, scores from the paired sample t-tests, measured at two different points, revealed no significant differences, indicating "good cross-temporal stability" (Liebenberg et al., 2012, p. 221), or in other words, good test-retest reliability. Furthermore, the subscales correlation coefficients, ranging from 0.56 to 0.71, support the existence of "both the positive relationship between the resilience components and their distinctiveness" (Liebenberg et al., 2012, p. 223). The subscales within the CYRM-28 also have internal consistency and reliability. In addition, Windle et al. (2011) state that few instruments account for the dynamic process of change and adaptation and describe resilience across multiple dimensions and layers. The CYRM-28 is one of only five resilience instruments that capture the construct's intricate and temporal nature by considering both the culture and context of a given population. Examination of its content indicates that the CYRM-28 is a valid instrument to measure resilience. When compared to 14 other resilience scales, the CYRM-28 stands out as one of four measures that achieved the highest score for content validity (Windle et al., 2011). The CYRM-28 may be more culturally appropriate and a better option to use for measuring resilience in cross-national populations when compared to 14 other resilience instruments (Windle et al., 2011).

Review of psychometric properties of the CYRM-28 with 28 items and the CD-RISC with 10 items and their reliability and validity information suggested that the two instruments complemented one another while filling in gaps the other did not cover. When compared to other resilience scales, the CYRM-28 received the highest scores for content validity, and the CD-RISC (10-item) received the highest rating on construct validity. Whereas the CD-RISC received one of the best psychometric ratings, the CYRM-28 seemed most appropriate for diverse cultures and contexts (Windle et al., 2011). Therefore, this study included two instruments to measure resilience to gain a more valid picture of the actual construct in college students.

Personal Growth Initiative Scale-II. The PGIS-II measures PGI from a multi-dimensional perspective (Weigold et al., 2013). The PGIS-II is a measurement instrument that asks respondents to reply to 16 items using a six-point scale that ranges from 0 (*Disagree Strongly*) to 5 (*Agree Strongly*). Respondents rate themselves on a variety of items, including if they *take every opportunity to grow* or *set realistic goals*. The measure incorporates the following four subscales: (1) degree to which the person is ready for the change (*Readiness for Change*), (2) knowledge and ability of the person to develop appropriate plan for change (*Planfulness*), (3) desire and skills of the person to access resources and utilize support systems (*Using Resources*), and (4) ability of the person to initiate and implement needed actions and behaviors (*Intentional Behavior*) (Robitschek et al., 2012; Weigold et al., 2013).

The four subscales of the PGIS-II account for internal and external resources an individual possesses, such as individual strengths and resources as well as support and resources from the community. The PGIS-II considers people's perception about their ability to influence and control their lives (human agency), inherited cognitive abilities, and capability to access

community support and resources available (Bandura, 2002; Weigold et al., 2013). Since

support and resources from the community are important, having external provisions and

resources available is necessary for individuals to access and utilize them. However, the

individual must have a certain amount of self-motivation, possess the knowledge to develop a

plan, be familiar with resources available, and take specific actions to follow through with an

established plan (Robitschek & Cook, 1999; Weigold et al., 2013). Prior research finds that a

higher level of PGI is associated with a higher level of well-being and a lower level of

depression (Robitschek et al., 2012).

Researchers used a sample population of college undergraduate students to assess the

strength of the PGIS-II. Evaluation of reliability (Cronbach's alpha) for each subscale supported

the presence of strong internal consistency, resulting in *Readiness for Change* (0.80), *Planfulness*

(0.88), *Using Resources* (0.79), and *Intentional Behavior* (0.86). Analysis of discriminant

validity of the PGIS-II total and subscale scores compared to scores from the Marlowe-Crowne

Social Desirability Scale–Short Form supported the existence of discriminant validity, with

scores ranging from $r = -0.70$ to $r = 0.08$. In addition, assessment of convergent validity of the

PGIS-II with the original version of the PGIS was found to be significant ($p < .001$) and resulted

in the total PGIS-II correlation coefficient of $r = 0.70$ (Robitschek et al., 2012).

Demographics. The demographic characteristics questionnaire asked students about the

following: age, gender, marital status, race, generational status to identify FGCS, place of

residence, employment status, and income (family of origin). In addition, students identified

their academic classification by responding to how many semesters of college they had

completed. Each item asked students to select the choice that best described them from a

multiple-choice list or to provide responses by typing in a text box. Categories for *Race and*

Ethnicity came from *The Chronicle of Higher Education* (2016) and adapted to include the

following: a) *American Indian or Alaska Native*, b) *Asian or Asian American*, c) *Black or

African American*, d) *Hispanic or Latino/a*, e) *Native Hawaiian or Pacific Islander*, f) *American

White or Caucasian*, or g) *Other*. To distinguish FGCS from NonFGCS, students responded to

questions about the level of education their parents or guardians had achieved. In addition, the

questionnaire included questions about whether they live on *On-campus* or *Off-campus*, their

Employment Status, how many hours they work, and their *Income (family of origin)*.

Ethical Consideration

To protect the identity of the students participating in the research and to respect the

assessment process already in place at the institution participating in the research, the researcher

collaborated with the Director of Quality Enhancement to distribute the online survey. Using the

Campus Labs survey platform, the researcher created the Web-based online survey consisting of

the following: the CD-RISC with 10 items, the CYRM-28 with 28 items, the PGIS-II with 16

items, and a demographics questionnaire with 18 questions. Once the Director of Quality

Enhancement and Institutional Review Board reviewed and approved the survey questions, the

Director of Quality Enhancement emailed the survey to students. The complete online survey

had 75 items that took approximately between 10 and 20 minutes to complete, depending on an

individual's response.

To allow the researcher to review specific responses, while protecting each student's

identity, the Director of Quality Enhancement removed all identifying information before

providing the data to the researcher. Each row of data represented a unique respondent, and

letter and number combinations were assigned to each unique student respondent, such as R001,

R002, and so on, to protect his or her actual identity. To verify and distinguish FGCS from

NonFGCS, a survey question asked respondents to provide general information about their parents' level of education. Once the data were available from the Director of Quality Enhancement, the researcher analyzed the information to identify significant differences in demographic characteristics, resilience scores, and PGI measurements, while investigating how these differences manifest across academic classifications in FGCS and NonFGCS.

Procedure

The researcher obtained permission from the Institutional Review Board at the research institution prior to beginning the research. In addition, the researcher collaborated with the Director of Quality Enhancement at the research institution to finalize the survey questions and create an email invitation to send to prospective research participants. Once the study and survey received official approvals and permissions, the distribution of the survey followed a specific timeline in the 2017 fall semester. The Director of Quality Enhancement distributed the survey on Tuesday, September 5, 2017, kept the survey open for four weeks, and closed the survey on Saturday, September 30, 2017. Students who did not complete the survey after receiving the first email invitation continued to receive a follow-up email every fourth day to encourage them to complete the survey. Unless a student contacted the Director of Quality Enhancement and communicated he or she was not interested in participating in the study, students selected to participate in the survey continued to receive reminder emails to complete the survey until the survey closed officially. Those students who completed the online survey could choose to enter their names in a drawing for a $100 gift card by responding to the last two questions on the survey and providing their email addresses. From the list of all individuals who elected to participate in the drawing for a $100 gift card, the Director of Quality Enhancement randomly selected five students to receive gift cards and contacted them after the survey closed. Students

who won a gift card picked up the gift cards from the Director of Quality Enhancement. Therefore, only the Director of Quality Enhancement had access to the names and identities of students who participated in the drawing for the gift cards.

Data Analysis

After obtaining data from the Director of Quality Enhancement that had already been de-identified with each row representing an individual student, the researcher examined and analyzed all data available. To identify significant differences that existed, the researcher analyzed survey responses from all student participants using a two-way ANOVA. First, the researcher analyzed demographic data descriptively to better describe the sample. Next, scores on all measures that students completed were analyzed descriptively. Descriptive statistics provided a summary of the collected data by reducing large data to a manageable size (Urdan, 2010). The researcher also examined the data for unexplainable and unaccountable outliers and removed them from the analyses. The remaining data underwent an inspection for missing values, incongruities, and accuracy. Then, the researcher calculated inferential statistics in order to compare possible differences across the two groups of students (FGCS and NonFGCS) on four different variables: (1) Demographic characteristics, (2) CD-RISC, (3) CYRM-28, and (4) PGIS-II. Conducting analyses of variance allowed the researcher to determine if scores were different statistically (Alreck & Settle, 1995). Based on the results found, the researcher conducted post-hoc comparisons across different demographic variables as well as across different subtests. Data from the sample permitted the researcher to develop certain assertions and make inferences about the larger population at the research institution and other private universities (Babbie, 1973).

Summary

This study relied on quantitative methods to investigate if the constructs of resilience and PGI differed significantly across FGCS and NonFGCS attending a private university. The researcher used survey research, specifically an online survey, to collect data from FGCS and NonFGCS for analysis. The online survey consisted of 75 items that incorporated three resilience and PGI measurement instruments and a demographics questionnaire. Review of the natural stratification that existed according to the academic classification of the FGCS group assisted in the selection process of NonFGCS using stratified random sampling. Therefore, all FGCS and an equal number of NonFGCS received email invitations to participate in the research. Data collected from respondents underwent statistical analyses using a two-way ANOVA to determine if significant differences existed between FGCS and NonFGCS.

CHAPTER FOUR: RESULTS

This study sought to explore the constructs of resilience and personal growth initiative (PGI) in first-generation college students (FGCS) attending a private university by comparing these students to their non-first-generation student peers, while accounting for academic classifications. The researcher conducted a cross-sectional study involving an online survey to measure resilience and PGI, using multiple measurement tools that included the Connor-Davidson Resilience Scale (CD-RISC), Child and Youth Resilience Measure-28 (CYRM-28), Personal Growth Initiative Scale-II (PGIS-II), and a demographics questionnaire. The Director of Quality Enhancement sent an email to 1,910 students attending a private university to invite them to participate in the research. All students identified by the university as FGCS based on their admission applications received the survey. An equal number of non-first-generation college students (NonFGCS) received the same email invitation to participate in the study. The email provided information about the research and asked students to participate in the study by clicking on a link to complete an online questionnaire.

The researcher examined data obtained from the questionnaire according to two main independent variables, *generation status* (FGCS and NonFGCS) and *academic classification* (freshman, sophomore, junior, and senior), and three main dependent variables (scores from three resilience and PGI measurement scales). Part of the study involved checking to see if generation status served as the focal variable and academic classification acted as the moderator variable. To clarify, the researcher conducted the study to learn whether different generation status (being FGCS or NonFGCS) and/or academic classification (being freshmen, sophomores, juniors, or seniors) had an influence on resilience and PGI scores. Thus, choosing an appropriate

statistical method to analyze the data played an important part in enabling the researcher to answer the research questions.

The researcher used Version 24 of SPSS (2016) to conduct three different two-way analysis of variance (two-way ANOVA). The choice to use the two-way ANOVA involved exploring possible analytical needs centered on answering the two research questions and testing key assumptions associated with the statistical method. Using the two-way ANOVA provided a way to examine and measure potential differences between two or more groups to determine if statistical significance existed (Alreck & Settle, 1995). The two-way ANOVA allowed for the comparison of the independent variables' group means (generation status and academic classification) in relation to the dependent variables (measurement scores). In addition, the statistical method incorporated post hoc tests when applicable. With multiple groups and group means, post hoc tests helped to identify "which groups differ from each other significantly" by comparing each group mean (or distribution) against another systemically (Urdan, 2010, p. 110). Performing the two-way ANOVA on the collected survey data provided results that addressed the following research questions below:

1. Do significant differences exist on the construct of resilience between FGCS and NonFGCS as measured by the CD-RISC and the CYRM-28? How do these differences manifest across academic classifications?

2. Do significant differences exist on the construct of personal growth initiative between FGCS and NonFGCS as measured by the PGIS-II? How do the differences manifest across academic classifications?

Demographics

From the total number of students who received the email invitation to participate in the

study, approximately 13% (251 students) opened the online survey. Of those who opened the

survey, 249 students consented to participate in the research and two students indicated that they

did not want to participate. Although 249 students consented to participate in the study and

continued responding to additional questions, only 213 completed the entire questionnaire. Of

those respondents who answered questions #68 and #69 about their parents' or guardians' formal

education, 95 (28 males and 67 females) met the definition of being FGCS and 110 (22 males

and 88 females) met the definition of being NonFGCS. To reiterate, first-generation students

indicated neither one of their parents or guardians had obtained at least a bachelor's degree while

non-first-generation students indicated they had one or more parents or guardians who had

obtained a bachelor's or higher degree. In addition to the 205 respondents who were identified

as first-generation or non-first-generation students, eight students' generation status could not be

determined since they picked *Other/Unknown* when asked about their parents' or guardians'

education. As described in Table 2, the researcher retained 205 respondents as the sample size

for further analysis once participants' generation status and academic classification were

determined ($n = 205$).

Table 2

Size of Sample Population

	Generation status		
Academic classification	FGCS	NonFGCS	Total
Freshman	23	25	48
Sophomore	14	20	34
Junior	33	28	61
Senior	25	37	62
Total	95	110	205

The sample population of 205 respondents consisted of 50 males (24.4%) and 155 females (75.6%). Approximately 94.2% of the student respondents were 18 to 22 years of age, and approximately 88.8% selected *single* as their marital status. Race and ethnicity composition of the total sample population consisted of 10 (4.9%) *American Indian or Alaskan Native*, 15 (7.3%) *Asian or Asian American*, 9 (4.4%) *Black or African American*, 2 (1.0%) *Native Hawaiian* or *Pacific Islander*, 9 (4.4%) *Hispanic or Latino/a*, 2 (1.0%) *Other*, and 158 (77.1%) *American White or Caucasian*. Along with reporting their race and ethnicity, 17 (8.3%) students also identified themselves as international students. Data from the small number of international students remained part of the analysis process. Figure 2 compares the race and ethnicity of FGCS and NonFGCS.

	Asian or Asian American	Black or African American	Hispanic or Latino/a	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	American White or Caucasian	Other
■ FGCS	7	6	7	6	1	66	2
■ NonFGCS	8	3	2	4	1	92	0
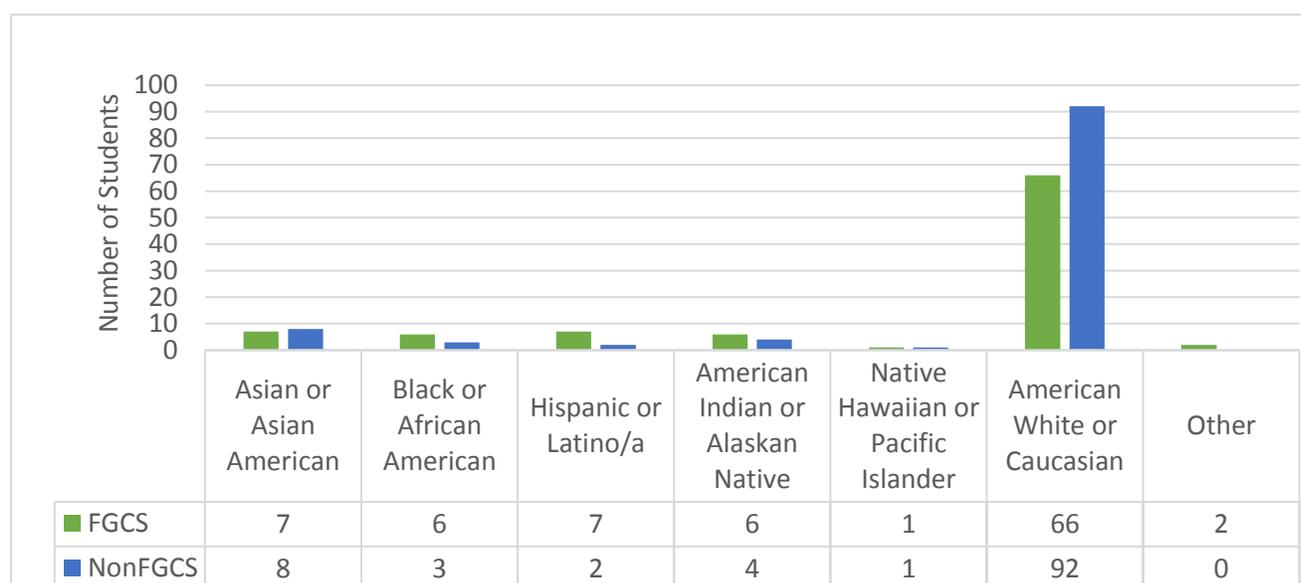
Figure 2. Race and ethnicity composition of FGCS and NonFGCS in the sample population.

When asked about how many hours they worked in a typical week, approximately 33.7% of the participants reported they did not work at all, 56.6% worked less than 26 hours, and 9.8% worked 26 hours or more. Of the 205 students, 147 (approximately 71.7%) indicated that they did not participate in any support programs such as Student Support Services (TRIO) or other

programs. In addition, approximately 86.4% of the student respondents received some type of

financial assistance in the form of scholarships, grants, and/or loans. Furthermore,

approximately 69.7% of the respondents reported that they resided on-campus in a residence hall

or dormitory or off-campus in a university-sponsored apartment or house.
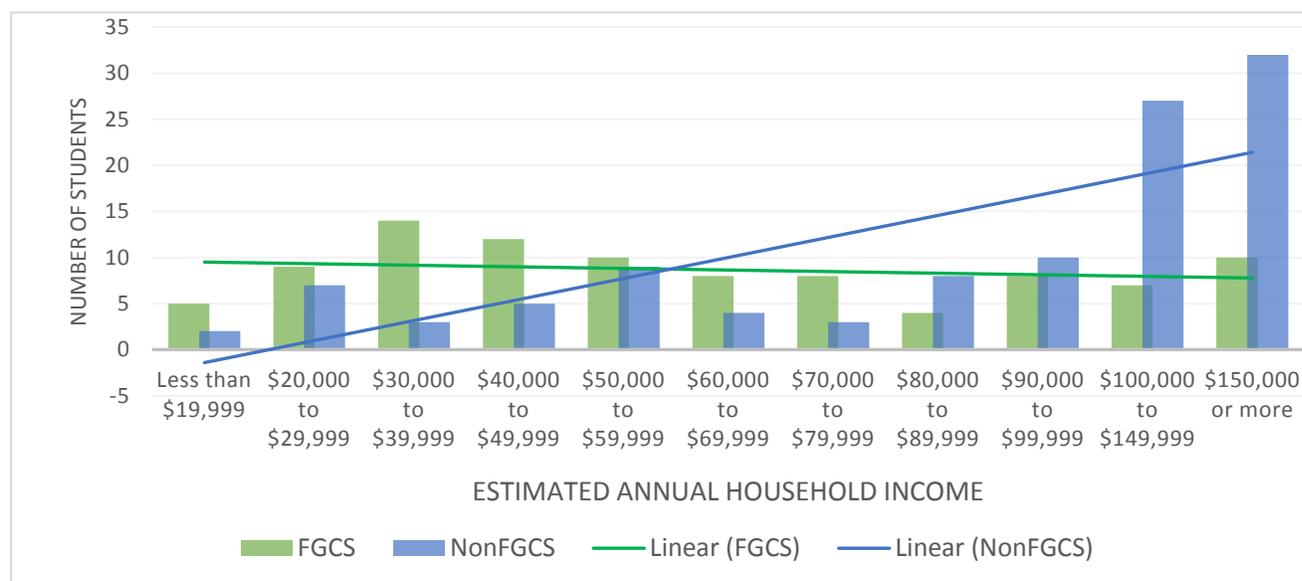
Figure 3. Trend lines of the estimated family of origin's annual household income for FGCS and NonFGCS in the sample population show dissimilar patterns.

The estimated family of origin's annual household income varied amongst the 205

respondents since approximately 27.8% indicated that it was $49,999 or less, 26.3% indicated

that it was greater than $49,999 but less than $90,000, and 45.9% estimated that it was greater

than $90,000. Figure 3 reflects reported family annual income according to generation status.

As shown in Figure 3, approximately 42.1% FGCS estimated they had a family income of

$49,999 or less, 31.6% indicated their family income was greater than $49,999 but less than

$90,000, and 26.3% estimated their family income was greater than $90,000. Approximately

15.5% NonFGCS estimated they had a family income of $49,999 or less, 21.8% indicated their

family income was greater than $49,999 but less than $90,000, and 62.7% estimated their family income was greater than $90,000.

Results

Four Key Assumptions

To confirm that the two-way ANOVA was appropriate to use for the survey data set, the researcher tested four key assumptions associated with inferential statistics on scores obtained from the CD-RISC, CYRM-28, and PGIS-II. Assumptions related to linearity, normality, homogeneity of variance, and independence (Houser, 2009). Testing the assumptions involved checking for the presence of independence, reviewing boxplots to identify outliers by conducting a residual analysis, evaluating normality for each cell of the design by performing Shapiro-Wilk's normality test, and assessing the homogeneity of variance by using Levene's test. A review of the generated boxplots for each dependent variable to check the first assumption revealed the presence of few outliers. Of the 205 possible observations, eight outliers existed. However, no points or outliers existed with extreme values that affected all three measurements. These few outliers did not warrant any data exclusion. When the researcher used the Shapiro-Wilk's normality test to check the second assumption, findings were statistically significant (p value was less than .05) in all three instances. Levene's test of homogeneity of variances on all three measures revealed nonsignificant results. Nonsignificant results (p value was greater than .05) for the three instruments indicated that variances of the scores were equal in all cells of the design. Since scores from the CD-RISC, CYRM-28, and PGIS-II came from a one-time survey using three different scales, scores were independent and unrelated to each other. Therefore, the findings met the fourth assumption of independence.

In an ideal research situation, meeting the requirements of all four assumptions validated the use of the two-way ANOVA as the appropriate statistical method of data analysis. Houser (2009) noted that meeting all the criteria was not vital since no specific number of violations actually disqualified the use of the two-way ANOVA. After testing the four assumptions for each measurement scale and discovering few violations, the researcher chose the two-way ANOVA to evaluate the survey data set. Hence, the researcher performed the two-way ANOVA three separate times to analyze scores obtained from the CD-RISC, CYRM-28, and PGIS-II.

Descriptive Statistics

SPSS (Version 24) provided the scores' range, means, and standard deviations for the two resilience measurements (CD-RISC and CYRM-28) and personal growth scale (PGIS-II). With the online survey adjusted rating, the range of possible scores for the CD-RISC and PGIS-II differed slightly from their original scales. Mean scores and standard deviations of the resilience and personal growth measurement instruments are available in Table 3, Table 4, and Table 5. Each table has three sections, separated according to generation status and academic classification. In addition, Table 6 compares the mean scores for the three measures by generation status and academic classification. As a reminder, the CD-RISC and CYRM-28 both measured the construct of resilience, whereas the PGIS-II measured the personal growth initiative construct.

Table 3

Means and Standard Deviations for Scores on the CD-RISC

Generation Status	Academic Classification	M	SD	n
FGCS	Freshman	39.13	6.39	23
	Sophomore	40.43	3.72	14
	Junior	41.27	5.44	33
	Senior	40.40	4.42	25
	Total	40.40	5.22	95
NonFGCS	Freshman	37.36	6.13	25
	Sophomore	39.70	5.47	20
	Junior	39.71	4.50	28
	Senior	41.05	4.47	37
	Total	39.63	5.19	110
Total	Freshman	38.21	6.25	48
	Sophomore	40.00	4.77	34
	Junior	40.56	5.05	61
	Senior	40.79	4.42	62
	Total	39.99	5.20	205

Table 4

Means and Standard Deviations for Scores on the CYRM-28

Generation Status	Academic Classification	M	SD	n
FGCS	Freshman	120.91	9.61	23
	Sophomore	117.86	12.79	14
	Junior	118.00	10.68	33
	Senior	112.24	14.47	25
	Total	117.16	12.11	95
NonFGCS	Freshman	121.72	12.16	25
	Sophomore	121.60	9.48	20
	Junior	120.96	13.54	28
	Senior	120.08	12.88	37
	Total	120.95	12.20	110
Total	Freshman	121.33	10.90	48
	Sophomore	120.06	10.94	34
	Junior	119.36	12.06	61
	Senior	116.92	13.97	62
	Total	119.20	12.28	205

Table 5

Means and Standard Deviations for Scores on the PGIS-II

Generation Status	Academic Classification	*M*	*SD*	*n*
FGCS	Freshman	78.09	9.77	23
	Sophomore	74.36	10.59	14
	Junior	78.09	9.96	33
	Senior	75.12	9.18	25
	Total	76.76	9.79	95
NonFGCS	Freshman	78.64	11.74	25
	Sophomore	75.25	10.40	20
	Junior	77.86	12.53	28
	Senior	80.76	10.44	37
	Total	78.54	11.31	110
Total	Freshman	78.38	10.73	48
	Sophomore	74.88	10.33	34
	Junior	77.98	11.12	61
	Senior	78.48	10.26	62
	Total	77.71	10.64	205

Table 6

Comparison of Means for Scores on the CD-RISC, CYRM-28, and PGIS-II

Independent Variables		Value Label	*n*	Mean Score		
				CD-RISC	CYRM-28	PGIS-II
Generation status	1	FGCS	95	40.40	117.17	77.71
	2	NonFGCS	110	39.63	120.95	76.76
Academic classification	1	Freshman	48	38.21	121.33	78.38
	2	Sophomore	34	40.00	120.06	74.88
	3	Junior	61	40.56	119.36	77.98
	4	Senior	62	40.79	116.92	78.48

CD-RISC (10-item Resilience Scale)

When student participants responded to the first set of resilience questions, scores from the CD-RISC ranged from 23 to 50 (with a possible range of 10 to 50). Table 3 displays the CD-RISC means and standard deviations for FGCS ($M = 40.40$, $SD = 5.22$), NonFGCS ($M = 39.63$, $SD = 5.19$), and the total sample population ($M = 39.99$, $SD = 5.21$). Analysis of the CD-RISC measurement scores and inspection of the boxplots revealed the presence of one outlier that existed in the NonFGCS-Freshman group. A check for normality indicated that the data were normally distributed, with the exception of the FGCS-Freshman group ($p = .03$). Examination for homogeneity of variances supported that it existed ($p = .09$). Analysis of the main effect for generation status indicated no significant difference between scores obtained from FGCS and NonFGCS, $F(1, 197) = 1.29$, $p = .26$. Similarly, an analysis of main effect for academic classification revealed no significant difference between scores obtained from freshman, sophomore, junior, and senior groups, $F(3, 197) = 2.43$, $p = .07$. In addition, pairwise comparison analyses for generation status and academic classification yielded no statistically significant difference (p values were greater than .05).

CYRM-28 (28-item Resilience Measure)

When student participants responded to the second set of resilience questions, scores for the CYRM-28 ranged from 82 to 140 (with a possible range of 28 to 140). Table 4 shows the CYRM-28 means and standard deviations for FGCS ($M = 117.17$, $SD = 12.11$), NonFGCS ($M = 120.95$, $SD = 12.20$), and the total sample population ($M = 119.20$, $SD = 12.28$). More specifically, the mean scores for FGCS freshmen, sophomores, and juniors, and seniors were $M = 120.91$, $M = 117.86$, $M = 118.00$, and $M = 112.24$ respectively. For NonFGCS, the mean scores were $M = 121.72$, $M = 121.60$, $M = 120.96$, and $M = 120.08$ respectively. Inspection of

the boxplots generated for the CYRM-28 revealed the presence of six outliers, which consisted of one in the FGCS-Freshman group, one in the FGCS-Sophomore group, one in the NonFGCS-Freshman group, and three in the NonFGCS-Junior group. Examination for normality of distribution indicated that most cells were normally distributed, with the exception of the FGCS-Sophomore group ($p = .03$). Analysis to assess homogeneity of variances supported its existence ($p = .43$).

A main effect for the CYRM-28 was found, revealing the presence of a significant difference in the measurement scores for FGCS and NonFGCS, $F(1, 197) = 4.74$, $p = .03$. Pairwise comparisons were conducted for generation status and academic classification, where reported 95% confidence intervals and p values were Bonferroni-adjusted. The unweighted marginal means for generation status were 121.09 ($SE = 1.19$) for NonFGCS and 117.25 ($SE = 1.31$) for FGCS, indicating a statistically significant FGCS and NonFGCS mean difference of 3.84, 95% CI [0.36, 7.32], $p = .03$. Analysis of main effect for academic classification, however, revealed no statistically significant difference in the scores for freshmen, sophomores, juniors, and seniors, $F(3, 197) = 1.74$, $p = .16$. The interaction effect between generation status and academic classification on resilience, as measured by the CYRM-28, was also not statistically significant, $F(3, 197) = .81$, $p = .49$.

PGIS-II (16-item PGI Scale)

The online survey included the PGIS-II as the only measure of PGI. Scores for the PGIS-II ranged from 49 to 96 (with a possible range of 16 to 96). Table 5 captures the PGIS-II means and standard deviations for FGCS ($M = 76.76$, $SD = 9.79$), NonFGCS ($M = 78.54$, $SD = 11.31$), and the total sample population ($M = 77.71$, $SD = 10.64$). Data from the PGIS-II were analyzed and an inspection of the boxplots revealed the presence of one outlier in the NonFGCS-Senior

group. A check for the normality of the distribution indicated that most cells were normally distributed, with the exception of the NonFGCS-Junior group ($p = .01$). Homogeneity of variance was also supported ($p = .73$). An analysis of the main effect for generation status found no significant difference between FGCS and NonFGCS scores, $F(1, 197) = 1.23$, $p = .27$. Similarly, analysis of main effect for academic classification suggested that there was no statistically significant difference between scores from freshmen, sophomores, juniors, and seniors, $F(3, 197) = .88$, $p = .45$. Pairwise comparison analyses for generation status and academic classification yielded no statistically significant difference (p values were greater than .05).

Summary

Once students completed the online survey, resilience and PGI data became available for analysis. The researcher performed a two-way ANOVA three different times to analyze the data attained from the CD-RISC, CYRM-28, and PGIS-II. Performing the two-way ANOVA provided descriptive and inferential statistics to answer the two main research questions. Analyses of total scores from the three types of measures revealed that only the CYRM-28, one of two resilience measurements used in the study, had a statistical significance main effect for generation status. Further analyses of resilience and PGI scores were not statistically significant.

CHAPTER FIVE: DISCUSSION

This study examined the constructs of resilience and personal growth initiative (PGI) in first-generation college students (FGCS) as they transitioned from freshman through senior year in college. The researcher sought to learn how generation status influenced these two strengths-oriented constructs by comparing FGCS to their non-first-generation student peers. This study used a cross-sectional design and analysis involving an online survey to collect data from FGCS and non-first-generation college students (NonFGCS). Selected student participants completed a 75-item online questionnaire that included two resilience measurement instruments, a PGI inventory, and a demographics questionnaire. To detect the presence of significant differences, data obtained from the survey underwent analyses using a two-way analysis of variance (two-way ANOVA), once for each measure.

Characteristics of Participants

Data obtained from the sample population revealed possible differences and similarities that existed between FGCS and NonFGCS at the private university where the study took place. The race and ethnicity composition reported by the Office of Institutional Research for the 2017 fall semester was comparable (although not identical) to that of the 205 student respondents. Although the overall makeup of the sample population appeared to be representative of the university population, the study had a higher percentage of female respondents. For the most part, demographic characteristics of the total sample population ($n = 205$) were similar to the subgroups of first-generation ($n = 95$) and non-first generation ($n = 110$) students. Although most differences were not significant, notable ones need mentioning. At first glance, generation status did not seem to influence race and ethnicity composition greatly at the institution because the majority of respondents—69.5% of FGCS and 83.6% of NonFGCS—identified themselves

as *American White or Caucasian*. Closer examination of the actual number of students in each

race and ethnicity revealed a different pattern. As depicted in Figure 2, there were more *Black or*

African American, *Hispanic or Latino/a*, and *American Indian or Alaskan Native* FGCS (six,

seven, and six students respectively) than NonFGCS (three, two, and four students respectively).

Students of color were more likely to be FGCS than *American White or Caucasian* students,

even though there were more *American White or Caucasian* FGCS. This may have been

primarily a factor of the overwhelming majority of college students being disproportionately

American White or Caucasian. The pattern of race and ethnicity composition found in this study

was consistent with literature that described demographic characteristics of FGCS, who were

more likely to be minorities (Baker & Robnett, 2012). The difference in the number of minority

students was important since the students' race and ethnicity may affect their overall college

experience and influence the obstacles they encounter at the university (Jehangir, 2010; Sheheen,

1988; Ward et al., 2012).

Beyond race and ethnicity, family income level may also shape the college students'

experience and adjustment period. As shown in Figure 3, the number of FGCS decreased as the

estimated income range increased, while the opposite pattern appeared for NonFGCS. For

instance, a greater percentage of NonFGCS (approximately 62.7%) than FGCS (approximately

26.3%) reported having an estimated family income greater than $90,000. This finding was

consistent with literature that indicated a student's background influenced the type of college or

university he or she attended (Riehl, 1994; Tinto, 1975). Data obtained from the survey

regarding the family of origin's annual income may have revealed possible financial disparities

in family income and university affordability between FGCS and NonFGCS attending different

universities. This finding was consistent with results from prior research since FGCS were more

likely to come from families with lower income than NonFGCS (Campbell & Mislevy, 2013; Jehangir, 2010; Long et al., 2000; Sheheen, 1988; Ward et al., 2012). Fewer FGCS estimated having a family income greater than $90,000 at the private college.

Research Questions

Findings from multiple analyses help to answer the two main research questions that guided this study. The researcher used descriptive and inferential statistics to address the two research questions and evaluate the hypotheses, as described below.

Question 1: *Do significant differences exist on the construct of resilience between FGCS and NonFGCS as measured by the Connor-Davidson Resilience Scale (CD-RISC) and the Child and Youth Resilience Measure-28 (CYRM-28)? How do these differences manifest across academic classifications?*

Results from the two different resilience measurement scales were inconsistent and did not align with one another. Although both the CD-RISC and CYRM-28 were rating scales intended to measure the construct of resilience, the mean scores for the two instruments were not parallel and did not align. The CD-RISC mean scores indicated that FGCS and NonFGCS first-year students (freshman) had lower means than those in their senior year. However, the CYRM-28 mean scores for FGCS and NonFGCS revealed opposite patterns since first-year students had higher means than those in their senior year. In addition, the CYRM-28 mean scores for NonFGCS seemed to decrease steadily from freshman to senior year, as shown in Table 4.

As measured by the CD-RISC, results from the analyses for the main effects of generation status and academic classification indicated that no significant differences existed on the construct of resilience between FGCS and NonFGCS. However, results differed for the main effects for generation status and academic classification as measured by the CYRM-28. Findings

for FGCS and NonFGCS CYRM-28 scores revealed that a significant difference existed for generation status but not for academic classification. Therefore, results obtained from the two-way ANOVA did not support the first hypothesis since neither set of scores reached statistical significance. The results indicated a significant difference only for generation status on the CYRM-28, which indicated that FGCS generally had lower resilience scores than NonFGCS.

Discovering a statistically significant difference in resilience scores, as measured by the CYRM-28, seemed plausible since prior research indicated that pre-existing characteristics and differences that existed between FGCS and NonFGCS may influence the college adjustment period. For example, students who came from families with lower income and received inadequate academic preparation were less likely to complete their bachelor's degrees (Choy, 2001). Compared to NonFGCS, FGCS usually received less advice and guidance about their education, had less financial support, and felt less confident about their personal abilities, which may have lowered their overall CYRM-28 scores (Jehangir, 2010; Sheheen, 1988; Ward et al., 2012; Woosley & Shepler, 2011). When the researcher measured FGCS and NonFGCS using the CYRM-28, their scores may have reflected these differences. Obtaining a main effect for generation status indicated that being first-generation or non-first-generation students affected resilience scores since FGCS tended to receive lower resilience score (approximately 3.84 points lower) than NonFGCS.

The inconsistent resilience scores and results obtained using the CD-RISC and CYRM-28 reflects the ongoing discussion about which resilience scale was most valid and accurate to use with which populations (Windle et al., 2011). As mentioned in Chapter 3, each resilience scale had unique strengths and limitations that may have influenced the overall scores obtained by student participants. Strengths and limitations of the CD-RISC and CYRM-28 complemented

one another, with one measure filling the gap of the other. The CD-RISC stood out as a scale with strong construct validity and psychometric properties whereas the CYRM-28 stood out as a scale with strong content validity. Therefore, the inclusion of the two resilience measures may have incorporated a greater variety of items to measure the true construct of resilience. Since each measurement tool attempted in a different way to quantify similar constructs related to resilience, successful adaptation, and healthy personal development, rating statements in each instrument varied greatly (Robitschek et al., 2012; Windle et al., 2011).

Compared to the 10 items used in CD-RISC, the CYRM-28 included more items that assessed support from family, friends, community, and other supportive relationships. The greater number of items may have improved the measure's sensitivity and allowed for the inclusion of different facets of resilience, such as supportive relationships and communities linked to the university. Perhaps, the CYRM-28 subscales captured a wider variety of factors and/or support processes that contributed to resilience than the CD-RISC, allowing the CYRM-28 to detect significant differences that existed between FGCS and NonFGCS. As described in the Measures (Instruments) subsection, items in the CYRM-28 attempted to account for the dynamic process, multifaceted construct of resilience involving individual characteristics, relational experiences with caregivers, and contextual contributors. However, items in the CD-RISC focused mainly on personal characteristics (Connor & Davidson, 2003; Windle et al., 2011). The CYRM-28's consideration of supportive relationships and available resources in different cultural and contextual environments may have given it an advantage over the CD-RISC, which may help to explain the existence of two different sets of resilience scores and findings.

Question 2: *Do significant differences exist on the construct of personal growth initiative between FGCS and NonFGCS as measured by the Personal Growth Initiative Scale-II (PGIS-II)? How do the differences manifest across academic classifications?*

An examination of the PGI mean scores for FGCS and NonFGCS across academic classifications found them inconclusive since scores varied from one academic year to the next without revealing any identifiable patterns. For instance, FGCS freshmen and juniors had higher means than sophomores and seniors. However, NonFGCS freshmen and seniors had higher means than sophomore and juniors. Importantly, these mean differences, although apparent, were not statistically significant. In addition, analyses for the main effects for generation status and academic classification, as measured by the PGIS-II, indicated no significant differences on the construct of PGI between FGCS and NonFGCS. Therefore, the results did not support the second hypothesis since data analyses did not reveal any statistically significant differences between PGIS-II scores obtained from FGCS and NonFGCS.

A possible factor that may have contributed to the fluctuation of PGIS-II scores (although not significantly), throughout the four academic years may be related to the survey participants' similar developmental stage. Since the majority of respondents identified their relationship status as *single* and reported that they were between 18 to 22 years of age, only minor differences may have existed in their cognitive and behavioral development. The construct of PGI, as measured by the PGIS-II, accounted for four elements that included *Readiness for Change, Planfulness*, *Using Resources*, and *Intentional Behavior*. In a prior study that involved adolescents and young adults, Luyckx and Robitschek (2014) explored developmental periods, identity formation, and vocational exploration. They found *Planfulness* in adolescents but not in young adults. The PGIS-II may not have detected slight cognitive and behavioral differences

among survey respondents within the same developmental period since the majority (94.2%) of

respondents were 18 to 22 years of age. Undergraduate college students, regardless of their

academic classification, may have encountered similar developmental experiences and concerns,

which contributed to the nonsignificant differences in research findings. Compared to the

possible score range for each measure, scores from the sample populations appeared "truncated"

and spanned within the higher range. A truncated range may make detecting actual differences

between FGCS and NonFGCS more difficult due to a ceiling effect (Urdan, 2010).

Limitations of the Study

This cross-sectional study used a Web-based survey to gain greater access to participants

and increase the ease of survey implementation while applying stratified random sampling to

manage the disparity between the smaller number of FGCS and greater number of NonFGCS.

Using survey research and stratified random sampling, however, had some inherent limitations.

The construction of the online survey itself may have compromised its reliability. The process of

combining multiple instruments to measure the construct of resilience and PGI to create a single

online survey involved adjusting the rating scales to improve the flow of the survey and analysis

of the responses. Since the CYRM-28 had the largest number of items and used a rating scale

that ranged from one to five (*1* to *5*), the researcher adjusted the CD-RISC and PGIS-II rating

scales to start with one instead of zero as originally constructed. Thus, online survey participants

responded to all resilience questions using a 5-point Likert type scale ranging from *1* to *5* and

PGI questions using a 6-point Likert type scale ranging from *1* to *6*. Adjustments to the ratings

also affected the total score a person could achieve and influenced descriptive and inferential

statistics associated with the CD-RISC and PGIS-II. Adjusted scores on the CD-RISC (10-item)

ranged from 10 to 50 and on the PGIS-II from 16 to 96. Since FGCS and NonFGCS completed

the same online questionnaire, however, the researcher could still compare the two groups of students and identify any significant differences that existed.

In addition to the main limitation related to survey construction, other limitations also existed. First, this study had a small sample population since only 13% of the total students opened the survey after they received an invitation to participate in the research. Since the actual number of FGCS enrolled at the university was small, the number of students who completed the survey was low, leading to a possible source of error related to nonresponse. After the researcher cleaned and verified the data for accuracy, only 205 student participants remained in the study. Data available for analysis, therefore, only came from student respondents who completed the entire online survey ($n = 205$) and did not include those students who had partially responded to some items but did not finish. When the researcher divided the 205 participants into smaller groups according to their generation status and academic classification, the number of participants available for each subgroup reduced further. The small sample size reflected in this study reduced its statistical power and increased the probability of a Type II error (Cohen, 1992; Nuzzo, 2016). Even if a significant difference existed across the subgroups represented in this study (e.g., 14 sophomore FGCS and 20 sophomore NonFGCS), insufficient statistical power decreased the probability of detecting this effect at different levels of generation status and/or academic classification (independent variables).

Second, the available sample population (students who completed the survey) may not have been truly representative of the entire student population attending the university. Relying on self-report and indirect measurements may have influenced survey research responses and captured personal biases and inaccurate perceptions (Babbie, 1973). For example, the limited number of NonFGCS included in the study may not have represented the actual characteristics of

the entire NonFGCS population attending the university. In addition, students who had declined to participate in the study or ended the survey prematurely may have had lower resilience and PGI scores. Based on the type of students who decided to complete the survey, participants may not have been representative of FGCS and NonFGCS at the private university, which may have also increased the chances of a Type I error (Houser, 2009). If this was the case, the statistical significance discovered for generational status using the CYRM-28 may have been due to the unique qualities of the survey participants and may not reflect the larger population. If a Type I error occurred, the researcher may have found a statistical difference (based on individual participant differences) when no statistically significant difference existed in the actual sample populations.

Likewise, the specific pattern discovered in this study, related to family income and differences between FGCS and NonFGCS, may only be relevant to the survey participants and not applicable to the larger population. A small, biased sample limits the external validity (i.e., generalizability) of the research findings (Alreck & Settle, 1995; Fowler, 1988). Third, research findings varied greatly depending on which resilience and personal growth instrument the researcher used to measure the construct of resilience and PGI. Although the CD-RISC, CYRM-28, and PGIS-II were all strengths-oriented constructs, scores from the three rating scales did not align with each other. Since resilience and PGI were strengths-oriented constructs, instruments created to measure these similar constructs ought to reveal similar statistical patterns and relationships. The score means and standard deviations from the CD-RISC, CYRM-28, and PGIS-II were inconclusive since scores from the three measurements did not follow the same pattern. Statistical analysis involving the same variables and similar constructs did not yield the same pattern of relationships for the CD-RISC, CYRM-2, and PGIS-II, which generated

different mean scores, standard deviations, and p values. Readers must consider all these

limitations when reviewing this study.

Implications for Future Research

To learn more, researchers will need to ask more questions and conduct further research.

Future research that explores how different levels of financial assistance may influence resilience

scores and retention rates at the university may provide greater insight into the role of financial

support. Conducting a longitudinal study that examines different levels of financial support and

its influence on grade point averages, resilience scores, and graduation rates may offer additional

insights about how to assist students effectively. In addition, further investigation of the student

population's family income patterns may allow educators at the research institution to improve

recruitment and retention strategies to promote diversity, build resilience, and improve retention

rates. Gaining more information about family income and possible needs may help

administrators to better evaluate financial assistance support systems in place and develop

structures that promote resilience and improve retention.

Future studies that incorporate the actual voices of survey participants through qualitative

methods may also offer a more complete picture of FGCS. Including randomized follow-up

interviews with student participants who completed the entire survey as well as those who

partially completed the survey but did not finish may capture additional information and

contribute to knowledge about the sample populations of FGCS and NonFGCS. Moreover, such

interviews may help to explain differences that existed between resilience instruments and

overall scores, since the CYRM-28 indicated that a significant difference existed for generation

status, but the CD-RISC did not reveal any significant differences. Although it may be possible

to hypothesize why students scored differently on the two resilience scales, determining which instrument is more accurate is not possible without further research.

Furthermore, as mentioned in Chapter 3, the CD-RISC used in this particular study has 10 items as compared to the CYRM-28 with 28 items. The difference in the number of questions may have influenced the overall scores of the instruments, varying the results. The choice to include two resilience instruments in this survey was deliberate since the use of the CD-RISC was more prevalent than the CYRM-28 (Connor & Davidson, 2003). In addition, the 10-item version of the CD-RISC helped to reduce the total number of online survey questions. Future researchers may want to examine psychometric differences and similarities more closely by using the original version of CD-RISC with 25 items and the CYRM-28. Exploring the use of different scales with FGCS may contribute to alternative perspectives.

Moreover, future researchers may be interested in examining factors possibly contributing to the resilience scores more closely. As discussed in the Resilience and Resiliency Research subsection, the description and definition of the construct of resilience did change over time in history (see Table 1). Modern definitions tended to view resilience as a dynamic process involving multiple factors influenced by the person, family, community, and culture (Herrman et al., 2011; Masten, 2014). Hence, the CYRM-28 may have allowed the instrument to detect a greater variety of support structures since the instrument had three subscales to assess the individual's personal capabilities and resources, caregiving relationships, and contextual factors that instill connectedness and belonging. Future research that reaffirmed the existence of a significant difference between FGCS and NonFGCS resilience scores may help educators and administrators address their needs more effectively. By knowing that FGCS, overall, had lower

resilience scores than the NonFGCS, educators and administrators may use the CYRM-28

subscales as a guide to create programs that increase different forms of support systems.

Conclusion

The group referred to as FGCS tended to be diverse with each group of students varying

according to the type of higher education institutions they attended (Ward et al., 2012). This

study examined one particular sample of FGCS who were attending a private university in the

southwestern United States. The majority of research participants were *single*, traditional-age

college students, with most being *American White or Caucasian*. Information obtained from

group comparisons revealed that FGCS were more likely to come from families with lower

annual incomes as compared to NonFGCS. In addition, a larger number of FGCS were in

minority groups, such as *Black or African American*, *Hispanic or Latino/a*, and *American Indian*

or Alaskan Native.

After performing the two-way ANOVA three separate times, the researcher uncovered a

few relational patterns and insights. According to the CD-RISC, resilience scores increased as

academic classification increased since seniors had higher scores than freshmen, possibly

indicating a positive relationship between grade level and resilience scores. Mean scores from

the CYRM-28, however, decreased steadily as academic classification increased, possibly

indicating a negative relationship between grade level and resilience level (see Table 6). In

general, the CD-RISC and CYRM-28 (both resilience scales) revealed different patterns of

resilience scores for freshman and senior students. Similarly, scores from the PGIS-II provided

no conclusive insights.

An analysis of the main effect for generation status revealed a statistical difference

existed between FGCS and NonFGCS based on their resilience scores as measured by the

CYRM-28. FGCS tended to have lower resilience scores than NonFGCS. When the remainder of the scores and measurements underwent analysis, findings were not statistically significant. Results from the study revealed potential differences between FGCS and NonFGCS at the university; nevertheless, limitations of the study imply that readers should view the results with some skepticism. This quantitative, cross-sectional research study, which involved an online survey, provided a snapshot of one group of FGCS attending a unique private university. Viewing results from this study as contributions to enhance pre-existing knowledge, rather than definitive findings, could inspire future researchers to continue investigating differences across these two populations of students.

REFERENCES

Adelman, C. (2004). *Principal indicators of student academic histories in postsecondary education, 1972–2000*. Washington, DC: U.S. Department of Education, Institute of Education Sciences.

Alreck, P. L., & Settle, R. B. (1995). *The survey research handbook* (2nd ed.). Boston, MA: Irwin McGraw-Hill.

Anderson, H., & Goolishian, H. A. (1988). Human systems as linguistic systems: Preliminary and evolving ideas about the implications for clinical theory. *Family Process, 27*(4), 371-393.

Astin, A. W. (2006). Making sense out of degree completion rates. *Journal of College Student Retention, 7*(1-2), 5-17.

Babbie, E. R. (1973). *Survey research methods*. Belmont, CA: Wadsworth Publishing Company.

Baker, C. N., & Robnett, B. (2012). Race, social support and college student retention: A case study. *Journal of College Student Development, 53*(2), 325-335.

Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review, 51*(2), 269-290.

Benard, B. (2007). The foundations of the resiliency paradigm. In N. Henderson, B. Benard, & Sharp-Light (Eds.), *Resiliency in action: Practical ideas for overcoming risks and building strengths in youths, family, and communities* (pp. 3-7). Ojai, CA: Resiliency in Action, Inc.

Bottrell, D. (2009). Understanding 'marginal' perspectives: Towards a social theory of resilience. *Qualitative Social Work, 8*(3), 321-339.

Braxton, J. M. (2002). Introduction to special issue: Using theory and research to improve college student retention. *Journal of College Student Retention, 3*(1), 1-2.

Broad, M. C. (2011). Higher education's new competitive landscape. *Leader to Leader, 59*, 14-17.

Bui, K. V. (2002). First-generation college students at a four-year university: Background characteristics, reasons for pursuing higher education, and first-year experiences. *College Student Journal, 36*(1)*, 3-11.

Bureau of Labor Statistics, U.S. Department of Labor. (2015). More education still means more pay in 2014. *The Economics Daily*. Retrieved from http://www.bls.gov/opub/ted/2015/more-education-still-means-more-pay-in-2014.htm

Campbell, C. M., & Mislevy, J. L. (2013). Student perceptions matter: Early signs of undergraduate student retention/attrition. *Journal of College Student Retention, 14*(4), 467-493.

Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress, 20*(6), 1019-1028. doi: 10.1002/jts.20271.

Chen, X., & Carroll, C. D. (2005). *First-generation students in postsecondary education: A look at their college transcripts*. (U.S. Department of Education, National Center for Education Statistics, NCES 2005–171). Washington, DC: National Center for Educational Statistics.

Choy, S. P. (2001). *Students whose parents did not go to college: Postsecondary access, persistence, and attainment*. (U.S. Department of Education, National Center for

Education Statistics, NCES 2001–126). Washington, DC: National Center for

Educational Statistics.

Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science, 1*(3), 98-101. doi:10.1111/14678721.ep10768783

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety, 18*(2), 76-82. doi:10.1002/da.10113

Diener, E. (2009). Positive psychology: Past, present, and future. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (pp. 7-11). New York, NY: Oxford University Press, Inc.

DiGiuseppe, R., & Tafrate, R. C. (2007). *Understanding anger disorders*. New York, NY: Oxford University Press.

Earvolino-Ramirez, M. (2007). Resilience: A concept analysis. *Nursing Forum, 42*(2), 73-82.

Edward, K. (2005). The phenomenon of resilience in crisis care mental health clinicians. *International Journal of Mental Health Nursing, 14*, 142-148.

Fowler, F. J. (1988). *Survey research methods* (Rev. ed.). Newbury Park, CA: Sage Publications.

Gardner, S., & Holley K. (2011). Those invisible barriers are real: The progression of first-generation students through doctoral education. *Equity & Excellence in Education, 44*(1), 77-92.

Garmezy, N. (1991). Resilience in children's adaptation to negative life events and stressed environments. *Pediatric Annals, 20*(9), 459-459. doi:10.3928/0090-4481-19910901-05

Grotberg, E. H. (2003). *Resilience for today: Gaining strength from adversity*. Westport, CT: Praeger Publishers.

Hardin, E. E., Weigold, I. K., Robitschek, C., & Nixon, A. (2007). Self-discrepancy and distress: The role of Personal Growth Initiative. *Journal of Counseling Psychology, 54*(1), 86-92.

Henderson, N. (2003). *Resiliency in schools.* Thousand Oaks, CA: Corwin Press, Inc.

Herrman, H., Steward, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience? *The Canadian Journal of Psychiatry, 56*(5), 258-265.

Houser, R. (2009). *Counseling and educational research: Evaluation and application.* Los Angeles, CA: SAGE Publications, Inc.

Hoyt, J. E., & Winn, B. A. (2004). Understanding retention and college student bodies: Differences between drop-outs, stop-outs, opt-outs, and transfer-outs. *NASPA Journal, 41*(3) 395-417.

IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.

Inkelas, K. K., Daver, Z. E., Vogt, K. E., & Leonard, J. B. (2007). Living-learning programs and first-generation college students' academic and social transition to college. *Research in Higher Education, 48*(4), 403-434. doi:10.1007/s11162-006-9031-6

Irlbeck, E., Adams, S., Akers, C., Burris, S., & Jones, S. (2014). First generation college students: Motivations and support systems. *Journal of Agricultural Education, 55*(2), 154-166. doi: 10.5032/jae.2014.02154

Ishitani, T. T. (2016). First-generation students' persistence at four-year institutions. *College & University, 91*(3), 22-34.

Jehangir, R. R. (2010). *Higher education and first-generation students: Cultivating community, voice, and place for the new majority.* New York, NY: Palgrave Macmillan.

Joseph, S., & Linley, P. A. (2006). Positive psychology versus the medical model? *American Psychologist, 61*(4), 332-333. doi:10.1037/0003-066X.60.4.332

Liebenberg, L., & Ungar, M. (2009). *Researching resilience*. Toronto, Canada: University of Toronto Press.

Liebenberg, L., Ungar, M., & LeBlanc, J. C. (2013). The CYRM-12: A brief measure of resilience. *Canadian Journal of Public Health, 104*(2), 131-135.

Liebenberg, L., Ungar, M., & Vijver, F. V. d. (2012). Validation of the Child and Youth Resilience Measure-28 (CYRM-28) among Canadian youth. *Research on Social Work Practice, 22*(2), 219-226. doi:10.1177/1049731511428619

Long, M., Jenkins, G., & Bracken, S. (2000). Imposters in the sacred grove: Working class women in the academe. *The Qualitative Report, [On-line serial], 5*(3/4)*.* Available at: http://www.nova.edu/ssss/QR/QR5-3/long.html

Lopez, S. J., & Gallagher, M. W. (2009). A case for positive psychology. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (pp. 3-6). New York, NY: Oxford University Press, Inc.

Luyckx, K., & Robitschek, C. (2014). Personal growth initiative and identity formation in adolescence through young adulthood: Mediating processes on the pathway to well-being. *Journal of Adolescence, 37*(7), 973-981. doi: 10.1016/j.adolescence.2014.07.009

Martin Lohfink, M., & Paulsen, M. B. (2005). Comparing the determinants of persistence for first-generation and continuing-generation students. *Journal of College Student Development 46*(4), 409-428.

Maslow, A. H. (1954). *Motivation and personality* (1st ed.). New York: Harper.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227-238. doi: 10.1037//0003-066X.56.3.227

Masten, A. S. (2014). *Ordinary magic: Resilience in development*. New York: The Guilford Press.

Masten, A. S., & Powell, J. L. (2003). A resilience framework for research, policy, and practice. In S. Luther (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 1-25). New York, NY: Cambridge University Press.

Mehta, S. S., Newbold, J. J., & O'Rourke, M. A. (2011). Why do first-generation students fail? *College Student Journal, 45*(1), 20-35.

Naumann, W. C., Bandalos, D., & Gutkin, T. B. (2003). Identifying variables that predict college success for first-generation college students. *The Journal of College Admission*, (181), 4.

Nuzzo, R. L. (2016). Statistical power. *PM&R, 8*(9), 907-912. doi:10.1016/j.pmrj.2016.08.004

Ostrowski, T. M. (2014). Resilience in the light of research and theoretical reflection. In T. Ostrowski & I. Sikorska (Eds.), *Health and resilience* (pp. 13-23). Kraków: Jagiellonian University Press.

Ramos-Sanchez, L., & Nichols, L. (2007). Self-efficacy of first-generation and non-first-generation college students: The relationship with academic performance and college adjustment. *Journal of College Counseling, 10*(1), 6-18. doi:10.1002/j.2161-1882.2007.tb00002.x

Rennie, D. L. (2008). Two thoughts on Abraham Maslow. *Journal of Humanistic Psychology, 48*(4), 445-448. doi:10.1177/0022167808320537

Riehl, R. J. (1994). The academic preparation, aspirations, and first-year performance of first-generation students. *College and University: The Journal of the American Association of Collegiate Registrars, 70*(1), 14-19.

Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement & Evaluation in Counseling & Development (American Counseling Association), 30*(4), 183.

Robitschek, C., Ashton, M. W., Spering, C. C., Geiger, N., Byers, D., Schotts, G. C., & Thoen, M. A. (2012). Development and psychometric evaluation of the Personal Growth Initiative Scale-II. *Journal of Counseling Psychology, 59*(2), 274-287. doi:10.1037/a0027310

Robitschek, C., & Cook, S. W. (1999). The influence of personal growth initiative and coping styles on career exploration and vocational identity. *Journal of Vocational Behavior, 54*, 127-141.

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, *57*(3), 316-331. doi:10.1111/j.1939-0025.1987.tb03541.x

Rutter, M. (2007). Resilience, competence, and coping. *Child Abuse & Neglect, 31*(3), 205-209. doi:10.1016/j.chiabu.2007.02.001

Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology, 24*, 335-344. doi:10.1017/S0954579412000028

Schoon, I. (2006). *Risk and resilience: Adaptations in changing times*. New York: Cambridge University Press.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5-14.

Sheheen, F. R. (1988). The role of state boards of higher education in influencing access and

      retention of minorities in higher education. *Peabody Journal of Education, 66*(1), 20-31.

Son Hing, L. S. (2013). Stigmatization, neoliberalism, and resilience. In P. Hall & M. Lamont

      (Eds.), *Social resilience in the neoliberal era* (pp. 158-182). New York, NY: Cambridge

      University Press.

Soria, K. M., & Stebleton, M. J. (2012). First-generation students' academic engagement and

      retention. *Teaching in Higher Education, 17*(6), 673-685.

Specht, J., Polgar, M. J., & King, G. A. (2003). How we got here. In G. A. King, E. G. Brown, &

      L. K. Smith (Eds.), *Resilience: Learning from people with disabilities and the turning*

      points of their lives. Westport, CT: Praeger.

Stephens, N. M., Hamedani, M. G., & Destin, M. (2014). Closing the social-class achievement

      gap: A difference-education intervention improves first-generation students' academic

      performance and all students' college transition. *Psychological Science, 25*(4), 943-953.

      doi:10.1177/0956797613518349

Stieha, V. (2010). Expectations and experiences: The voice of a first-generation first-year college

      student and the question of persistence. *International Journal of Qualitative Studies in*

      Education, 23(2)*,* 237-249. doi: 10.1080/09518390903362342

Student diversity at more than 4,600 institutions. (2016, September 18). *The Chronicle of Higher*

      Education. Retrieved from

      http://www.chronicle.com.ezproxy.tcu.edu/interactives/student-diversity-2016

Sue, V. M., & Ritter, L. A. (2007). *Conducting online surveys.* Los Angeles: Sage Publications.

Tang, J., Kim, S., & Haviland, D. (2013). Role of family, culture, and peers in the success of first-generation Cambodian American college students. *Journal of Southeast Asian American Education and Advancement, 8*(2), 1-21.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125. Retrieved from http://www.jstor.org/stable/1170024

Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. *The Review of Higher Education, 21*(2), 167-177.

Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work, 38*, 218-235.

Ungar, M. (2013). Resilience, trauma, context, and culture. *Trauma, Violence, & Abuse, 14*(3), 255-266.

Urdan, T. C. (2010). *Statistics in plain English* (3rd ed.). New York, NY: Routledge.

Ward, L., Siegel, M. J., & Davenport, Z. (2012). *First-generation college students: Understanding and improving the experience from recruitment to commencement*. San Francisco, CA: Jossey-Bass.

Weigold, I. K., Porfeli, E. J., & Weigold, A. (2013). Examining tenets of personal growth initiative using the Personal Growth Initiative Scale-II. *American Psychological Association, 25*(4), 1396-1403.

Weigold, I. K., Weigold, A., Russell, E. J., & Drakeford, N. M. (2014). Examination of the psychometric properties of the Personal Growth Initiative Scale-II in African American college students. *Assessment, 21*(6), 754-764. doi:10.1177/1073191114524019

Werner, E. (1995). Resilience in development. *Current Directions in Psychological Science, 4*(3), 81-85. doi:10.1111/1467-8721.ep10772327

Werner, E. (2012). Risk, resilience, and recovery. *Reclaiming Children and Youth, 21*(1), 18.

Werner, E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood.* Ithaca: Cornell University Press.

Werner, E., & Smith, R. S. (2001). *Journeys from childhood to midlife.* Ithaca, NY: Cornell.

Wibrowski, C. R., & Clauss-Ehlers, C. S. (2007). Building educational resilience and social support: The effects of the Educational Opportunity Fund program among first- and second-generation college students. *Journal of College Student Development, 48*(5), 574-584. doi:10.1353/csd.2007.0051

Willoughby, C., Brown, E. G., King, G. A., Specht, J., & Smith, L. K. (2003). The resilient self– What helps and what hinders? In G. A. King, E. G. Brown, & L. K. Smith (Eds.), *Resilience: Learning from people with disabilities and the turning points of their lives.* Westport, CT: Praeger.

Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes, 9*(8), 1-18. doi:10.1186/1477-7525-9-8

Woosley, S. A., & Shepler, D. K. (2011). Understanding the early integration experiences of first-generation college students. *College Student Journal, 45*(4), 700-714.

Yakunina, E. S., Weigold, I. K., & Weigold, A. (2013). Personal growth initiative: Relations with acculturative stress and international student adjustment. *International Perspectives in Psychology: Research, Practice, Consultation, 2*(1), 62-71. doi:10.1037/a0030888

VITA

Personal Background	Vanden Thong Arlington, TX

Education	Diploma, Newman Smith High School,
	    Carrollton, Texas, 1993
	Bachelor of Arts, Psychology, The University of Texas at Austin,
	    Austin, Texas, 1999
	Master of Education, Educational Psychology, The University of
	    Texas at Austin, Austin, Texas, 2001
	Doctor of Philosophy, Counseling and Counselor Education, Texas
	    Christian University, Fort Worth, Texas, 2018

Experience	Career Counselor Intern, St. Edward's University, 2000
	Executive Team Leader, Target Corporation, 2002–2003
	Assistant Director of Career Development, Texas Christian University,
	    2004–2008
	Associate Director of Career Development, Texas Christian University,
	    2008–2013
	Training Specialist III, The University of Texas at Arlington,
	    September 2013–present

Professional Memberships	Solution Focused Brief Therapy Association Golden Key International Honour Society