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Closing the Gap? How Grit Impacts Hispanic Students' Retention

by

Sandro G. Benitez

A dissertation

Submitted in partial fulfillment

of the requirements for the degree of

Doctor of Education in the Department of Educational Leadership

Idaho State University

Spring 2021

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Committee Approval

To the Graduate Faculty:

The members of the committee appointed to examine the dissertation of SANDRO G. BENITEZ find it satisfactory and recommend that it be accepted.

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RE: Study Number IRB-FY2021-62 : Closing the gap? How grit impact Hispanic students' retention

Dear Mr. Benitez:

Thank you for your responses to a previous review of the study listed above. These responses are eligible for expedited review under OHRP (DHHS) and FDA guidelines. This is to confirm that I have approved your application.

Notify the HSC of any adverse events. Serious, unexpected adverse events must be reported in writing within 10 business days.

You may conduct your study as described in your application effective immediately. The study is subject to renewal on or before September 28, 2021, unless closed before that date.

Please note that any changes to the study as approved must be promptly reported and approved. Some changes may be approved by expedited review; others require full board review. Contact Tom Bailey (208-282-2179; email humsubj@isu.edu) if you have any questions or require further information.

Sincerely,

Ralph Baergen, PhD, MPH, CIP
Human Subjects Chair

Phone: (208) 282-1336 | isu.edu/research

BYU IDAHO Faculty Development & Mentored Research

February 8, 2020

Dear Sandro Benitez,

Your study entitled, "Dissertation (First-Year Hispanic Student Retention)", IRB #: W20-006, has been received, reviewed as an expedited review project (category 7) and approved. It has met the expectations of IRB protocols and is approved for one year from the date of this letter. We request that you update us on any changes to the project for our records. Should a change in your research approach or methodology change, please contact our office for assistance or re- evaluation. Please feel free to proceed with your project.

Best Regards,

Sidney L. Palmer

Sidney L.
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Closing the Gap? How Grit Impacts Hispanic Students' Retention

Dissertation Abstract—Idaho State University (2021)

The rapid growth of Hispanics in the United States cannot be "ignored" (Cerna et al., 2009, p. 131). Demographic studies estimate that this minority group will soon constitute one-fourth of the entire U.S. population (Llagas & Snyder, 2003). Although U.S. institutions are setting aside resources and integrating intervention strategies to help the Hispanic population succeed in college, Hispanic students are still underrepresented and underserved at a collegiate level (Schmidt, 2003). The study focused on Hispanic students enrolled in an Intermountain West institution that provided a remedial college course to help first-year students transition to college and increase student retention. One of the many principles emphasized in this course is Grit (Duckworth, 2016). This study took place over two successive academic semesters. The purpose of this study was to identify the relationship between grit and retention for first-year Hispanic students taking a transitional college course at a predominantly white institution.

This causal-comparative quantitative research was designed to determine if there was a statistically significant difference between first-year Hispanic students and first-year White students participating in a College Success course; in (1) pre-test Grit scores (2) post-test Grit scores; (3) Grit gain scores; and (4) the distribution of retained/non-retained students in the subsequent semester.

The analyses for all four of the research questions revealed no statistically significant difference between Hispanic and White on each of these measures. It is recommended that additional research should be conducted to generate additional data that supports first-year Hispanic student retention.

Key Words: Retention, grit, first-year Hispanic students.

Chapter One: Introduction

For decades, higher education leaders have attempted to identify the causes of student attrition. Efforts to improve student retention flourished in the 1950s, when "several campuses had begun to regularly monitor enrollments" (Berger et al., 2012, p. 21).

In the 1960s, John Summerskill (1962) reported that there was no single factor that contributed to student attrition; instead, he reported that there were several factors that made a difference in whether a student would stay or leave an institution. Summerskill's (1962) study noted that there were multiple factors that contributed to student attrition, both internal and external to the institution. If controlled, they were likely to have a positive impact on reducing student attrition. If several factors contribute to student attrition, the question emerged: Are there internal and external factors specific to first-year students contributing to their retention at their institutions?

In the 1970s, Alexander W. Astin recognized that personal and environmental factors were critical components related to the predictability of student attrition. Astin's (1975) longitudinal study revealed that there were additional experiential factors that could influence student retention after a student had enrolled in an institution. These findings influenced the strategies that higher education leaders implemented to address first-year students' attrition. Astin (1975) evaluated data relative to experiential factors that affected student attrition, such as academic background, family background, ethnicity, study habits, educational aspirations, and expectations for college that affected student attrition. Astin's (1975) work contributed to the conceptualization of the *Involvement Theory*, a theory regarding the effects of student involvement on attrition, which Astin published in 1985.

In essence, Involvement Theory suggested that the higher a student's level of institutional involvement, the more likely it was that he or she would persist with his or her education and remain in the institution. Some of the institutional involvement activities suggested by Astin (1985) included a student's place of residence, involvement in honors and other academic programs, the nature and quality of student-faculty interactions, athletic involvement, and involvement in student government.

Tinto (1975) contributed further to a university leader's understanding of the external influences on students' decision to drop out of an institution. Tinto's work identified transition processes that helped students adjust to college in order to be successful and reduce the likelihood of dropping out. Tinto's work contributed to the variety of efforts that higher education institutions used to create transition strategies in order to decrease student attrition. Universities currently invest in strategies that bring tangible results to reduce the risk of student's dropping out of college and increase student success in transitioning to the college environment (Baer & Norris, 2016).

There is a movement toward reducing first-year student attrition rates (Noel-Levitz, 2018). According to the National Center for Education Statistics (NCES) (2019), the retention rate for full-time degree-seeking students who enrolled at four-year degree-granting institutions in the fall of 2015 was 81 percent. These results also indicated that better than eighteen percent of students were not returning to continue with their post-secondary education. American College Testing (2018) reported that 28.3% of first-year students from 243 four-year private institutions in the United States did not return for their second year.

Hispanics constitute the largest minority group in the United States (Cantrell & Brown-Welty, 2014; U.S. Census Bureau, 2018a). Historically the Hispanic population has tended to be

the least-educated major racial or ethnic group in America (Schmidt, 2003). Just 11 percent of Hispanics over the age of 25 have a bachelor's degree, compared with about 17 percent of blacks, 27 percent of whites, and 47 percent of Asian-American in the same age bracket. More than two-fifths of Hispanics over 25 years of age have not graduated from high school, and more than one-fourth have less than a ninth-grade education (Schmidt, 2003).

According to Noel-Levitz (2018), most first-year students entering college have the goal to earn a diploma and be successful in postsecondary education. In fact, "97 percent [of students] say they are 'very committed' to earning a college degree, no matter what gets in their way" (Noel-Levitz, 2018, p. 2). The enthusiasm of these first-year students is commendable, but the challenges they face in continuing to pursue their goal increases over time. Motivation, attitudes, financial obstacles, career choice, persistence, and other factors often erode their enthusiasm, resulting in their decision to drop out of college (Noel-Levitz, 2018). Hispanic students entering college have shown to have the same intention and enthusiasm, and regardless of their low completion rates, a report on Hispanic students entering postsecondary institutions revealed that first-year Hispanic students had the intention and the needed enthusiasm to earn a degree (Fry, 2004).

Increasing the number of students returning to campus for their second year is a challenge for institutions across the Intermountain West. This study intended to identify whether there was a relationship or connection between grit (Duckworth, 2016) and retention of first-year Hispanic students taking a developmental course to improve retention, at a private, religious institution in the Intermountain West. Secondly, this study compared the grit (Duckworth. 2016) of first-year Hispanic students and first-year White students enrolled in similar developmental courses. The purpose of this developmental course is to prepare students with life and academic-success skills

and to provide career exploration and leadership experiences that will help them succeed throughout their postsecondary experience. The principles taught in this developmental course are based on the foundational principles of grit (Duckworth, 2016). The course has been implemented as a class in which all first-year students are required to enroll. This study focused on the retention strategy of grit (Duckworth, 2016) that is integrated into this developmental course.

This chapter introduces the background for the study, presents the research questions that will guide the study, and explains the significance of the study. This chapter will also include the assumptions, limitations, and delimitation of the study and define the key terms used in this study.

Background of the Study

Comprehending the key factors that contribute to student retention, including student growth and success, should be helpful for all higher education leaders trying to create and implement sound, successful, and purposeful college retention strategies for their institutions (Millea et al., 2018). It is crucial that higher education leaders have a deep understanding of the theoretical models that have been developed to support student retention (Aljohani, 2016). Identifying the specific factors that contribute to student retention according to the demographic make-up of an institution's student body is an essential step for higher education leaders to consider. It would be advantageous for university leaders to spend time and invest their resources in identifying the main factors that contribute to student attrition for the different populations of students attending their institutions. Not all students on a particular campus are faced with the same variables that contribute to attrition; therefore, it is critical for higher education leaders to also consider the racial background and other variables when making retention strategies

decisions (Tolliver & Miller, 2018). University leaders would be wise to invest time and other resources that support student retention. Understanding the theoretical models and research related to student attrition and retention will assist university leaders in making strategic decisions that target specific demographics in their student population and lead to more desirable outcomes.

For several decades, much has been reported regarding student attrition (Bean, 1980; Bean & Metzner, 1985; Cabrera et al., 1993; Pascarella, 1980; Pascarella & Terenzini, 1977; Pascarella & Terenzini, 1979; Pascarella et al., 1986; Tinto, 1975; & Tinto, 1982). In the early 2000s, it was "hypothesized that institutions could retain students if their retention programs were powerful enough to make substantial transformation" (Morrison & Silverman, 2012, p. 75). Currently, higher education leaders invest in retention programs designed to bring about desired results. The research in this area suggests that early and continual intervention will lead to lower dropout rates. Academic coaching and academic support offered by institutions suggest promising results in lowering first-year students' dropout rates (Ben-Yehuda, 2015). If academic coaching or support brings desirable results, then educational leaders would be well served to focus on these types of interventions. Academic supports, especially for first-year students, need to be considered and implemented to reduce first-year student attrition.

According to a report by Noel-Levitz (2018), freshmen or first-year students want to engage in planning their college-career experience. Noel-Levitz (2018) reported that it was evident that first-year students entered their learning institutions with high hopes of achieving academically and earning a degree. A Noel-Levitz (2018) survey of first-year college students reported that these students expressed interest in several topics upon transitioning into their collegiate environment. A total of 55% of freshman reported an interest in learning more about

salaries for various occupations, 54% showed an interest in learning about the qualifications for various occupations, 54% requested information on an educational plan to help them attain useful employment, 39% inquired about holiday or summer jobs, and 34% showed interested in learning how to manage their finances (Noel-Levitz, 2018, p. 7).

The results from this report should influence higher education leaders to devote their efforts to “engage students in timely conversations with advisors and student success professionals throughout the first year” (Noel-Levitz, 2018, p. 7). It is recommended that institutional leaders take advantage of these suggestions when investing and implementing retention strategies. Further, Noel-Levitz (2018) reported that “early intervention and assistance for incoming freshman helps them get off to a strong start” (p. 9). This outcome represents a desired outcome for educational leaders.

Gibbons et al. (2019) explored some of the strategies that first-year students employed to support their retention in higher education. Their findings revealed that for some first-year students, family, mentors, and faith, helped them reduce their inclination to drop out of college. College leaders would be well served to examine the variables that contribute to student attrition for their respective institutions (Hurford et al., 2017).

Reports of the impact of social integration on student attrition are increasing. It is essential to understand the role that social integration plays on the transition process for first-year students. Social adjustment plays an integral role in student retention in college. Gray et al. (2013) reported that social media had a positive impact on college-age students contemplating dropping out of college. Nevertheless, leaders need to be careful about how they utilize and apply social media as a tool to lower student attrition rates.

Research has shown a negative impact on first-year students' ability to succeed when social media continuously interferes with and interrupts their learning process (Thompson, 2017). Stress and academic burnout are also factors that contribute to student attrition. Although the relationship between stress and academic burnout is limited, stress can be a strong predictor of whether or not a student will decide to drop out of college (Lin & Huang, 2014).

Stress is not the only indicator that could help leaders understand why students drop out of college. Academic distress, financial distress, family support, and peer support, if not balanced, can contribute to anxiety among college students, which in turn will lead to student attrition. High levels of anxiety may also contribute to student attrition (Jones et al., 2018). "In order for universities to tailor treatments to the specific needs of their students, it is important to understand what other aspects of life, in addition to academics, may be causing this increase in depression, anxiety, and stress" (Beiter et al., 2014, p. 90).

Understanding the current research related to first-year student attrition can assist university leaders in implementing strategies that will benefit the student retention rates at their institution (Miller, 2017). Some of the research done in this area suggests that having the opportunity for first-year students to participate in supplemental instruction (SI) from the institution increased retention (Skoglund et al., 2018). Supplemental instruction for purposes of retention has been implemented at different institutions across the country. Congos and Schoeps (1998) suggested that supplemental instruction (SI) implemented at higher learning institutions boosted academic performance and student retention. Further, Congos and Schoeps (1998) suggested that what takes place during SI sessions improves academic performance and the retention of students. These results also suggested that SI's focus on acquiring and refining the tools essential for learning and applying them to the subject matter was a successful strategy for

helping students learn and understand what it takes to succeed in college classes (Congos & Schoeps, 1998, p. 58). Further, promising results from a study done by Malm, Bryngfors and Mörner (2012) of supplemental instruction for first-year students indicated that first-year college students actively attending and participating in an SI course showed significant growth in academic performance and subsequently enrolled in more college credits.

During the last decade, Angela Duckworth (2016) has contributed to the research related to student retention. Duckworth (2016) has identified an indicator that boosted the psychology of college students to resist attrition (Hochanadel & Finamore, 2015). Duckworth (2016) identified *grit* as a factor that served to increase student retention.

Pueschel and Tucker (2018) conducted a study that concluded there were aspects that led to increased grit among college students. In their research, Pueschel and Tucker (2018) purposefully taught college students what it meant and what steps to take to develop perseverance and grit. Their qualitative results indicated that college students were capable of being taught and developing grit. These findings support the work of Hochanadel and Finamore (2015), who reported that grit could be taught to faculty, students, and parents to help college students build stronger resilience toward attrition.

Furthermore, Vela et al. (2018) conducted a study on the effects of grit among Hispanic college students and noted the positive impact of hope on grit. Vela et al. (2018) suggested that school counselors and advisors should provide Hispanic students with ways to increase their hope, which in turn, lead to increased levels of passion and the perseverance to pursue a goal.

It has been suggested that higher education leaders pay attention to the current research on student attrition to make informed decisions (Millea et al., 2018). Identifying and evaluating the variables that impact attrition within their student population ns is a beneficial goal for higher

education leaders (Hurford et al., 2017). Considering the composition of an institution's student body (Tolliver & Miller, 2018) and implementing a robust and effective supplemental instruction course that targets all first-year students can boost these student's academic achievement and reduce student attrition (Skoglund et al., 2018).

The rapid growth of Hispanics in the United States cannot be "ignored" (Cerna et al., 2009, p. 131). Demographic studies estimate that this minority group will soon constitute one-fourth of the entire U.S. population (Llagas & Snyder, 2003). Despite the rapid growth of this minority group, the Federal Government "did not classify colleges as 'Hispanic-serving' until 1992" (Schmidt, 2003). Because of the continual increase in number of Hispanic students enrolled at higher education institutions across the country, many universities have established courses explicitly geared toward Hispanic students. Although U.S. institutions have set aside resources and integrated intervention strategies to help the Hispanic population succeed in college, Hispanic students are still underrepresented and underserved at a collegiate level (Schmidt, 2003).

Hispanics comprise the largest minority group in the United States (Cantrell & Brown-Welty, 2014; U.S. Census Bureau, 2018a). According to the National Center for Education Statistics (2019), when compared to Whites, Hispanics lagged behind by 37 percent for undergraduate student enrollment at degree-granting institutions. The educational progress for the Hispanic population is an important concern for higher education institutional leaders (Hurford et al., 2017).

Additionally, when compared to Whites and African-Americans, Hispanics lag behind in most postsecondary attainment measures. In 1992, Latinos were 23 percentage points behind Whites and 10 percent points behind Blacks in degree attainment. Contributing to this statistic

was the fact that Latinos were not increasing their postsecondary educational attainment as fast as their population grew. Between 1992 and 2016, the Latino population share grew by nine percentage points, while the share of Latinos with some postsecondary education grew by just six percentage points (Carnevale & Fasules, 2017, p. 26).

Carnevale and Fasules (2017) expanded on the discrepancy in postsecondary education attainment between native-born Latinos and Latinos who were not born in the United States. The progress made by native-born Latinos in education "more closely mirrors the educational attainment of Blacks but is still lower than the educational attainment of Whites" (Carnevale & Fasules, 2017, p. 26). The educational difference between Hispanics and Whites is alarming and deserves much more attention from institutional leaders in light of the growing Hispanic population in the United States and the indirect "economic and health needs of this population" (Cerezo & McWhirter, 2012, p. 867).

Lower college enrollment and high attrition rates for Hispanics means that they are missing out on an opportunity to obtain a college degree and limiting their opportunity to increase their chances to earn higher incomes (College Board, 2017), and missing the opportunity to realize a healthier lifestyle (Fuller, 2010). It is recommended that universities with a significant population of Hispanic students should be concerned with transforming their institution by making their campuses culturally and academically aware of the needs and strengths of this particular population (Garcia, 2012).

Pizzolato (2004) reported that first-year, high-risk college students, during their initial college experience, faced situations with peers or faculty members that reinforced feelings of incompetence and placed them in a powerless situation with regard to their academic achievement. When these first-year, high-risk students, compared themselves to peers who were

not identified as high-risk, these minority students encountered greater feelings of deficiency and inferiority. “It’s difficult when you feel dumber than everyone in your class, but it’s worse when a professor acts like you’re dumb just because who you are … without giving you a real chance” (Pizzolato, 2004, p. 431).

Educational leaders continued to discuss different ways to improve and get more Americans “off the sidelines and into the workforce. [They] are seeking to increase the country’s workforce participation rates by connecting workers with good-paying jobs” (The White House, 2019, para. 2). One of the several advantages of a college degree is the higher probability of entering the workforce immediately upon completion of that degree. It is crucial for individuals to receive a postsecondary education since it is no longer “just a pathway to opportunity for a talented few; rather, it is a prerequisite for the growing jobs of the new economy” (The White House, 2016). Earning a college degree gives individuals a distinct advantage in life. One of the main arguments that favor earning a college degree are the opportunities this accomplishment provides. College graduates experience

> larger earnings over a lifetime, lower unemployment rates, better health, higher marriage rates, and greater civic involvement. While these advantages for those with four-year degrees are substantial, two-year college graduates also have earnings and other outcomes that are better than high school graduates. (Rose, 2013, p. 25)

Hispanic students need to have access to these opportunities just as much as their White peers do (Cerezo & McWhirter, 2012). Despite the obstacles Hispanic students face while pursuing a postsecondary degree, the majority of Hispanic students start their education journey to obtain a degree and join the workforce with determination and enthusiasm (Fry, 2004).

Purpose of the Study

The purpose of this study was to compare the relationship between grit and retention for first-year Hispanic students taking a transitional college course with that of their White peers at a predominantly White institution. The data for this study was be collected from two consecutive academic semesters of the College Success course, winter 2020 (January-April), and spring 2020 (April-July) academic semesters.

The College Success course, at the study site, is a class offered to all first-year students. The College Success course is directed and facilitated by faculty appointed by university leaders with the primary goal of increasing student retention by developing a greater sense of grit in these first-year students. This course is viewed as an extension to the institution's freshman-orientation program that is provided at the beginning of each academic semester. Students taking this course enroll for one academic credit. This strategic course serves as a specific retention strategy targeting students who have earned fewer than 20 college credits.

Evaluation of the College Success course allow educational leaders to determine whether or not the interventions provided by the university make a difference in overall freshmen retention rates. This research will inform educational leaders as to whether the components of grit (Duckworth, 2016) as taught during the College Success course had an impact on Hispanic student retention. The results of the study will also allow institutional decision-makers to determine whether the specific components of grit (Duckworth, 2016) emphasized and taught to first-year students supported student retention for first-year Hispanic students. The impact of the study was measured by a quantitative comparison of the grit and retention rates for Hispanic students who complete the College Success course with the grit and retention rates for White students who complete the same College Success course.

Research Questions

The following research questions are proposed to guide this study:

1. Is there a statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site?

   H_0: There is no statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

   H_1: There is a statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

2. Is there a statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site?

   H_0: There is no statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

   H_1: There is a statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

3. Is there a statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in the College Success course at the study site?

H_0: There is no statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in a College Success course at the study site.

H_1: There is a statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in a College Success course at the study site.

4. Is there a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course?

H_0: There is not a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course.

H_1: There is a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course.

Definition of Key Terms

First-year student

An enrolled student who has not previously attended a higher education institution. This typically defined a student who has earned fewer than 20 academic credits.

College Success course

A one credit-hour course, used as an intervention for retention for first-year students.

Learning model

An institution-wide approach to teaching and learning. All professors instruct following this model to introduce and review course content. The Learning model is based on three key steps: Prepare, Teach One Another, and Ponder and Prove.

Hispanic student

Students enrolled at the study site who have self-identified themselves as Hispanic or Latino.

Grit

A mixture of passion and persistence that allowed individuals to be successful when pursuing a goal (Duckworth, 2016).

Retention

In this study, retention is defined as those students who have successfully completed the College Success course and continue to take courses at the study site in the next successive semester.

Limitations, Delimitations, and Assumptions

Limitations

As with any research study, there are some limitations to this study. These results cannot be generalized to the typical Hispanic first-year student enrolled at other institutions. First, the study was conducted at a private institution where the number of Hispanic students attending the study site was minimal in comparison with their non-Hispanic peers. Another limitation was that the entrance qualifications for students to attend the study site are different from most other

institutions of higher learning. The experiences for first-year Hispanic students attending this particular institution did not align similarly with the experiences of other first-year Hispanic students at different institutions. A strength of the study was that the results were specific to the makeup of the Hispanic population at the study site to allow institutional leaders to understand and make changes to better meet the need of this minority group of students.

This study was further limited by the age differences and life experiences of many of the prospective participants. Some participants may have recently graduated from high school, while others have likely spent time gaining valuable life experiences. Not only are these potential participants older, but they bring with them a different perspective and learning skills than their younger peers. This group typically showed signs of higher maturity levels than their peers that enroll directly from out of high school.

The College Success course had an average of 900 enrolled students per semester in about 70 sections. Faculty were appointed to supervise the course. Faculty members planned the instruction in the College Success course, and then the plan was conveyed to student-leaders hired to teach the principles of grit to their peers. These peer-teachers were supervised by university faculty. The study was limited to the strategies and styles implemented to teach grit by each section of the course.

Lastly, because this research followed a causal-comparative format, another limitation to the study was the threat to internal validity. In correlational studies, a researcher can identify relationships, but causation cannot be completely determined (Fraenkel et al., 2019).

Delimitations

A delimitation of this study was that the pool of individuals participating in this study were selected from those students enrolled in the College Success course over the period of two

consecutive academic semesters only. Only those students randomly selected by the university to participate during the study period constituted the population of students participating in the study.

Assumptions

There are some assumptions inherent in this study. It was assumed that respondents in this study responded honestly and completely to the survey questions. It was assumed that respondents suspended any preconceived ideas or biases they had in order to provide honest and complete responses.

Significance of the Study

Evaluation of the effectiveness and the extent to which grit, as currently taught and emphasized in the College Success course, impact Hispanic students, was pertinent because one of the study institution's outcomes is to provide a high-quality education that prepares all students, including students from diverse backgrounds and of varying abilities for lifelong learning and employment. Hispanic students constitute the second-largest ethnic group at the study site, and their numbers continue to increase each semester (Brigham Young University Idaho, 2019). This study enhanced the existing knowledge regarding the critical attributes in a first-year College Success course that helped first-year Hispanic students to stay in college after their first year (Gándara, 2010; Secada, 1999).

Institutional leaders have the responsibility to address high attrition rates and help students attain their degrees. Leaders also have the responsibility to reduce the degree attainment gap between Hispanics and Whites. Currently, Hispanic students' complete degrees 23% less often than their White peers (Cerezo & McWhirter, 2012). Hispanics continue to lag behind other minority groups in education attainment (Fry, 2004). Because of the responsibility

educational leaders have at an institution, it is essential that decisions, recommendations, and goals are based and supported by research.

Summary

For several decades, institutional leaders have attempted to identify the leading causes of student attrition. Currently, postsecondary institutions invest significant resources on strategies that target the transition of new students to higher education (Baer & Norris, 2016). One of the ways to enhance student retention is by focusing resources on the first-year student (Noel-Levitz, 2018).

It has been well established that not all students on any particular campus face the same variables that currently contribute to attrition; therefore, institutional leaders are urged to consider the racial backgrounds of their student populations when making strategic decisions regarding retention (Tolliver & Miller, 2018). First-year students enter higher education institutions eager to earn a degree and express interest in learning about various occupations, the qualifications needed for these occupations, and an interest in developing a plan to accomplish those goals (Noel-Levitz, 2018). Being able to reduce student attrition for the Hispanic population is a critical goal for institutional leaders, as high dropout rates have an impact on students and the economy of the nation (Baer & Norris, 2016).

Recently, grit has emerged as a construct that has the ability to impact college retention rates (Hochanadel & Finamore, 2015; Pueschel & Tucker, 2018). Vela et al. (2018) reported that grit was an important component in the retention of Hispanic students. Weisskirch (2018) suggested that teaching grit to Hispanic college students had the potential to increase retention rates. Lastly, Buzzetto-Hollywood and Mitchell (2019) concluded that grit increased retention among minority students.

The purpose of this study was to identify the relationship between grit and retention for first-year Hispanic students taking a transitional college course at a predominantly white institution. Additionally, this study determined whether this intervention increase retention rates for this group of Hispanic students compared with the retention rate of first-year White students. Research questions guiding this study were designed to identify whether grit, as taught in the College Success course, increased the retention of first-year Hispanic students at the study institution.

Chapter Two: Review of Related Literature

"Despite years of retention efforts, graduation rates of certain ethnic populations remain alarming low. Of the Hispanic students who enroll in college, only 46% attain their bachelor's degree" (Oseguera et al., 2009, p. 23). There are about 35 million Hispanic teenagers living in the United States, and the number of young Hispanics continues to increase at a rapid rate (Pew Research Center, 2017), becoming one of the largest youth populations in the country (Lopez et al., 2018). Consequently, careful and specific retention interventions by postsecondary leaders must be considered to successfully monitor and support the enrollment and retention of Hispanic college students.

It is important to note that despite the rapid growth of the Hispanic population, this minority group continues to be considered as one of the major undereducated minority groups in the United States (Schmidt, 2003). Additionally, studies have revealed a growing gap in degree completion between Hispanics and Whites (Carnevale & Fasules, 2017), putting the Hispanic population at a disadvantage when it comes to employment opportunities and lifetime earning potential. These findings are concerning since Hispanics account for 18.1% of the total population of the United States (U.S. Census Bureau, 2018a). Studies have shown that there are several advantages to earning a college degree (Hermannsson et al., 2017), and Hispanics deserve the same opportunity to succeed in college and life as their White counterparts.

This study will explore whether grit, emphasized, taught, and encouraged to first-year students enrolled in a university-designed course to help increase retention has a connection with retention for first-year Hispanic students. To support this study, this chapter is divided into four main parts. The first part includes a demographic overview of the Hispanic population; their status and trends within postsecondary education. The second part provides a concise history of

student retention models, including major institutional academic supports provided for first-year students. The third part consists of a review of student involvement factors, including specific factors that affect Hispanic students in postsecondary education systems. The final part explores the literature of a newly identified approach that improves the ability of college students to build resilience and endure through difficulties.

Latino Population in the United States

According to Ennis et al. (2010):

> The Hispanic population increased by 15.2 million between 2000 and 2010, accounting for over half of the 27.3 million increase in the total population of the United States. Between 2000 and 2010, the Hispanic population grew by 43 percent, which was four times the growth in the total population. (p. 2)

According to the U. S. Census Bureau (2016), less than eight percent (3,566) of the 44,778 individuals 25 years and older that had obtained a bachelor's degree were Hispanic. Within this figure, it was reported that 1,700 individuals were male and 1,866 were female. In 2018, the U.S. Census Bureau (2018b) reported that the United States population had reached an estimated 325 million people, of which 18.1% or 58 million were of Hispanic or Latino origin, making this group the largest minority group in the nation.

The Hispanic population in the United States is made up of individuals from different Spanish-speaking countries or regions. In 2010, Mexicans living in the U.S. comprised the largest part (63 %) of the Hispanic population. Puerto Ricans comprised the second largest population, and Cubans were identified as the third-largest group of Hispanics in the United States (Ennis et al., 2010). The Hispanic population in the United States continues to be comprised of individuals from different Spanish-speaking countries.

In 2010, there were 1.6 million people of Salvadoran origin; 3 percent of the total Hispanic population living in the United States, rising from 655,000 in 2000. The Salvadoran population grew significantly between 2000 and 2010, increasing by 152 percent (Ennis et al., 2010). Between 2000 and 2010, Guatemalan immigrants increased considerably, growing by 180 percent. Guatemalans represented 2 percent of the total Hispanic population in 2010. This population rose from 372,000 in 2000 to over 1 million in 2010 (Ennis et al., 2010). In the decade between 2000 and 2010, the U.S. population of South American Hispanics doubled, increasing from 1.4 million to 2.8 million. This population represented 5 percent of the total Hispanic population in the United States in 2010 (Ennis et al., 2010). Hispanic of Dominican descent accounted for 3 percent of the total U.S. population of Hispanics. This population grew by 85 percent, increasing from 765,000 in 2000 to 1.4 million in 2010. The remaining Hispanic origin groups represented about 8 percent of the total Hispanic population in the United States (Ennis et al., 2010, p. 4).

Latino Status and Trends in Post-Secondary Education

The Federal Government "did not classify colleges as 'Hispanic-serving' until 1992" (Schmidt, 2003, p. A8). Because of the increase in the number of Hispanic students enrolled at different institutions across the country, many universities have established courses geared toward Hispanic students. These institutions are also recruiting Hispanic students, professors, and administrators, and many of these institutions are focused on updating their admissions practices and pupil resources to be more mindful of the increasing Hispanic population. Although more institutions are setting aside resources and integrating intervention tactics to help the Hispanic population succeed in college, students that fit this category are still underrepresented and underserved at a collegiate level.

Hispanics continue to be the largest minority group in the United States (Cantrell & Brown-Welty, 2014; U.S. Census Bureau, 2018a). Schmidt (2003) reported that the Hispanic population has been the least-educated major racial or ethnic group. Just 11% of Hispanics over the age of 25 have a bachelor's degree, compared with about 17% of Black, 27% of White, and 47% of Asian-American adults in the same age bracket. More than two-fifths of Hispanic adults over 25 never graduated from high school, and more than one-fourth have less than a ninth-grade education (Schmidt, 2003).

In a report regarding Latino education conducted by Carnevale and Fasules (2017), when compared to White and Blacks, Hispanics were also behind in postsecondary degree attainment. In 1992, Latinos were 23 percentage points behind Whites and 10 percentage points behind Blacks in earning some type of postsecondary degree. The percent of Latinos earning a postsecondary degree continues to fall because their population is growing faster than other ethnic populations. Between 1992 and 2016, the Latino population grew by 9%, while the share of Latinos with some postsecondary education grew by just 6% (Carnevale & Fasules, 2017, p. 26). Carnevale and Fasules (2017) also noted that the progress made by native-born Latinos in education "more closely mirrors the educational attainment of Blacks but is still lower than the educational attainment of Whites" (p. 26).

Student Retention

Higher education leaders continue to feel the pressure to increase student retention. Understanding the key factors that contribute to attrition, including student academic growth and success, is valuable knowledge for postsecondary leaders responding to pressure to create and implement successful college-retention strategies that bring promising results (Millea et al., 2018). Institutional leaders need to understand the significance of the leading student retention

theoretical models that have been developed through research (Aljohani, 2016). Helping higher education leaders determine the specific factors that contribute to student retention for their respective institutions according to the demographic make-up of their student body is an important step in supporting student retention. It is recommended that university leaders spend time and invest resources in determining the main factors that contribute to student attrition for the different populations of students. Not all college students face the same variables that contribute to attrition. It is beneficial for leaders to consider racial background when making retention strategies decisions (Tolliver & Miller, 2018). University leaders do not have the time or the money to spend on strategies that do not work. Understanding the theoretical models and current research will assist higher education leaders in making strategic decisions that target specific demographics in their student population and lead to desired outcomes.

For several decades, much has been reported in regard to student attrition (Bean, 1980; Bean & Metzner, 1985; Cabrera et al., 1993; Pascarella, 1980; Pascarella & Terenzini, 1977; Pascarella & Terenzini, 1979; Pascarella et al., 1986; Tinto, 1975; & Tinto, 1982). Morrison and Silverman (2012) stated that it was “hypothesized that institutions could retain students if their retention programs were powerful enough to make substantial transformations” (p. 75). Today’s higher education leaders continue to invest in retention programs designed to bring about desired results. The research in this area suggests that early and continual intervention will lead to lower dropout rates. Academic coaching and academic support offered by institutions also suggest promising results in preventing first-year students from dropping out (Ben-Yehuda, 2015).

Christie and Dinham (1991) reported that there were several external and institutional variables that affected student attrition. Christine and Dinham (1991) concluded that most first-year students entered their postsecondary institution with a significant commitment to earning a

degree. This commitment, at the time of matriculation, was observed to be strongly supported by the student's personal experiences and background. The study also observed that after matriculation, the supports that reinforced the commitment to obtain a postsecondary degree changed. Academic and social integrations and interactions, replaced the personal experience and personal background, as the most prominent factors that affected retention.

It is advised that college leaders explore, examine, and identify the variables that contribute to attrition for their respective institutions (Hurford et al., 2017). Effective higher education leaders appropriately balance the external and institutional variables that affect student attrition. Allocating funds, time, and human resources that address the variables contributing the most to an institutions' student retention goals is a meaningful strategic decision for institutional leaders.

Reports on the effect that social integration has on student attrition are increasing. Studies have shown that social adjustment plays an integral role in students' retention in college. Understanding that social integration has a significant impact on the transition process for first-year students is valuable for institutional leaders. Gray et al. (2013) reported that social media had a positive impact on college-age student's decision to either stay in college or to drop out. Nevertheless, leaders need to be careful about how they utilize and apply social media as a tool to reduce student attrition. Research has shown a potential negative impact on first-year students' ability to succeed when social media interferes with and interrupts their learning process (Thompson, 2017).

Stress and academic burnout are also factors that contribute to student attrition. Although the relationship between stress and academic burnout is not well understood, stress can be a contributing factor to whether or not a student decides to drop out of college (Lin & Huang,

2014). Stress is not the only factor that leads to a student's decision to drop out of college; academic and financial distress, and a lack of family and peer support can contribute to anxiety among college students, which in turn may push students to drop out of college. High levels of anxiety also contribute to student attrition (Jones et al., 2018). "In order for universities to tailor treatments to the specific needs of their students, it is important to understand what other aspects of life, in addition to academics, may be causing this increase in depression, anxiety, and stress" (Beiter et al., 2014, p. 90). Institutional leaders are encouraged to carefully interpret and utilize these findings in order to reduce attrition rates at their institutions.

Historical overview of student retention

"American colleges have existed for over three hundred years and continue to be among the most well-respected postsecondary institution across the world" (Berger et al., 2012, p. 13). However, student retention and student academic success have been a more significant concern for educational leaders in the last decade. This concern has led to research, studies, and theories on the subject (Aljohani, 2016). McNeely (1937) was identified as one of the early researchers of student retention and academic success. McNeely's study evaluated potential reasons for student attrition. McNeely (1937) identified student mortality as "the failure of students to remain in college until graduation" (p. 1) and brought to light several different factors that contributed to student attrition, including the student's age, the location of their home, place of lodging, participation in extracurricular activities, and engagement in part-time jobs.

Another significant finding from McNeely's (1937) study was that public institutions had higher attrition rates than private institutions. McNeely also noted that males had higher rates of attrition than females, but males had higher rates of returning to finish their degree. McNeely (1937) also concluded, "There is little likelihood that a burdensome academic load was a

responsible factor in causing the student to leave universities" (p. 85). This finding represented a new concept for many institutional leaders. However, McNeely (1937) also noted that students who had higher grade point averages were less likely to drop out of college in comparison to those whose grade point average was low.

John Summerskill (1962) highlighted the concern that McNeely's research was focused on the administrative perspective of the institution and not on the student's experiences. The work performed by Summerskill (1962) explained that other factors made a difference in a student's decision to stay or leave an institution. Summerskill (1962) also discovered that internal and external factors could be manipulated to decrease student attrition. The findings from Summerskill's work on student attrition led educational leaders and researchers of this topic to recognize that psychological and sociological theories should be considered when addressing student retention and academic success.

Astin (1975) reported that personal and environmental factors were critical components of the predictability of student attrition. Astin's longitudinal study revealed that additional experiential factors could influence student retention. Astin (1975) evaluated data on these experiential factors, which included academic background, family background, ethnicity, study habits, educational aspirations, and expectations for college. The work accomplished by Astin (1975) contributed to the conceptualization of the *Involvement Theory*, a theory regarding student involvement, which Astin published in 1985. Involvement Theory suggested that increasing student institutional involvement brought higher retention rates. Some of Astin's (1993) institutional involvement activities included the place of residence, honors programs, academic involvement, student-faculty interactions, athletic involvement, and involvement in student government.

Spady (1970) argued that the research done by Astin lacked essential empirical evidence and that further longitudinal studies were necessary. Spady's (1970) studies suggested that the interactions between and among students, academic systems, and social systems would provide a better explanation and serve as a better predictor of the dropout process. Spady (1970) was able to observe how vital academic and social systems were to student retention. Spady (1970) suggested that those students who build strong interactions with other students would more likely stay in school and finish their degrees.

Tinto (1982) expanded our understanding of the external impacts on a student's decision to drop out of college. Tinto's work revealed that in order for some students to be successful in college, some transition processes needed adjusting. Tinto's (1982) research suggested that students adjusted to college life in certain stages. During the 1970s, while researchers and institutions relied on previous studies of student retention and student success, Tinto raised awareness of some of the limitations of the theories and practices previously published. Tinto (1982) noted that

> Recognizing theoretical limits should not, however, constrain seeking to improve our existing models or replace them with better. Nor should it hinder us from exploring areas of inquiry not yet studied. There are a number of ways in which existing theories improved and several very important questions regarding the character dropout that have yet to be fully considered. (p. 689)

Bean and Metzner (1985) focused their research on the variables that affected attrition for non-traditional students. Both researchers noted the impact of stress; a new factor shared in emerging studies on student attrition. Their research brought to light ways to help non-traditional students and questioned several practices being implemented by institutions. Some of the

variables Bean and Metzner (1985) identified in their research dealt with psychological outcomes. Their work noted that “One defining characteristic of the non-traditional student was the lack of social integration into the institution” (p. 489).

Finally, Seidman (2012) hypothesized that “institutions could retain more students if their retention programs were powerful enough to make substantial transformation” (p. 75). His studies revealed that early and continual intervention led to lower dropout rates.

Student Retention Models

Although many student retention models exist, there are several theoretical models that are repeatedly cited within the retention literature and “are usually considered as providing the conceptual foundations for many studies” (Aljohani, 2016, p. 4). The following section describes five such models.

The Undergraduate Dropout Process Model. This model, based on the work of Spady (1970), is founded on principles of social integration. The basis of this model is that students must integrate themselves into the social and educational systems adopted by the institution in order to build stronger resistance to attrition. The *Undergraduate Dropout Process Model* is one of the first models of student retention to be publicized. This model incorporates Durkheim’s (1951) theory of suicide as it applies to student retention, implying that suicide and, in this case, attrition, are ways for individuals to cut their affiliation from society. This model contributed to the literature on retention in that attrition rates were linked to the institution and its practices. Spady’s (1970) main presumption was that the results of the interaction between a student and the institution would set the level of the student’s academic and social integration and, therefore, their persistence. Spady (1970) determined that grades, intellectual development, and friendship support would greatly affect persistence.

The Institution Departure Model. This model, also fabricated on the work of Spady (1970), proclaimed that students needed to disassociate from their former communities upon entering an institution in order to lower their attrition rate. Tinto (1975) pointed out that a student was faced with two systems, which ultimately determined the student's academic success and degree completion; the academic system and the social system. Tinto (1975) described specific characteristics that were connected to student attrition. Tinto (1975) suggested that these specific characteristics were linked to how strongly students were committed to obtaining their degrees. Tinto (1975) suggested that "the more important characteristic of [the] family, the characteristics of the individual himself, his educational experience prior to college entry, and his expectations concerning future educational attainments" (p. 99) would greatly influence the attrition of students.

The Student-Faculty Informal Contact Model. This model emerged from previous findings and theoretical models developed by Tinto (1975). Pascarella and Terenzini (1979) argued that faculty interaction with students, especially during the first year that students attended an institution, was critical; that these interactions strengthened the student's persistence. The interaction referred by Pascarella and Terenzini (1979) suggested that "the quality and impact of student-faculty informal contacts may be as important to students' institutional integration and, thereby, their likelihood of persisting in college as the frequency with which such interactions occur" (p. 72).

The Non-Traditional Undergraduate Student Attrition Model. This model stressed that the previous research and other student retention models were based on typical college students and that their application to lower student attrition for non-traditional students would not give the same results as shown by the previous studies. This model explains how non-

traditional students are greatly impacted by external environments in contrast to the social integration variables that affect traditional students. Bean and Metzner (1985) proposed a model that had non-traditional students at its focus.

The Student Retention Integrated Model. This model merged and amended several variables from the Student Integration Model reported by Tinto (1975) and the Student Attrition Model suggested by Bean (1981). According to this model, encouragement from friends and family, along with financial attitude, were considered influential variables that affected student attrition and success. "However, findings suggest that the relationship between Encouragement from Friends and Family and Academic Experiences should not represent the only effects of environmental factors in the model" (Cabrera et al., 1993, p. 135).

Models of Student Retention Specific for Hispanic Students

The Reframing Retention Model

Braxton et al. (2004) based their framework for student retention from the work of Tinto (1993). Tinto (1993) explained a wide-ranging research on student attrition by pointing out actions that could help institutions to decrease attrition. Braxton et al. (2004) restructured Tinto's (1993) work into "four principal perspectives of persistence: economic, organizational, psychosocial, and sociological" aspects (Oseguera et al., 2009, p. 28). Braxton et al. (2004) recommended that colleges and universities provide orientation programs that included many opportunities for quality interpersonal interactions and to make these orientation programs mandatory for all new students. Another suggestion, as part of this model, was to require that all first-year students live on campus for their first year; this would allow for extensive social interactions and learning community building. This model also emphasized the effects of positive faculty interaction with students, which could be either formal or informal.

When working to improve the retention rates for Hispanic students, postsecondary leaders would do well to know that Hispanic students possess unique psychosocial experiences and challenges, and there are specific programmatic components that can increase the retention of this group of students. This retention model recommends three critical steps that colleges and universities can take to increase persistence and retention rates among racial and ethnic minorities:

> (a) Achieve and maintain a critical mass of students enrolled and retained; (b) make a space for diverse students (e.g., special programs, events, & tangible acts), show that the institution 'honor[s] the history and cultures of different racial and ethnic groups'; and (c) adapt [their] intervention model for at-risk students that emphasizes affirming students' identities and feeling incorporated (not assimilated into their college environments). (Oseguera et al., 2009, p. 29)

Because Hispanic students cannot escape racism, they should receive support to successfully maneuver their experiences and frame rapport with faculty and peers that will help them move unto their next phase of life and employment (Oseguera et al., 2009). Oseguera et al. (2009) argued that even though Predominantly White Institutions (PWIs) have created minority-centered programs to support minority students, there is not enough empirical research that supports this intervention as significant to influence retention among Hispanics.

The Connecting Retention and Academic Success Model

Swail et al. (2003) proposed a retention model that was relevant to minority students. Their model had a concentration on academic achievement and persistence and focused on institutional services and practices and not on individual behaviors. This geometric model presented three forces that affected student persistence and achievement.

> In terms of college persistence and achievement, three particular forces account for the entire spectrum of student outcomes: cognitive, social, and institutional factors. Briefly stated, the cognitive factors form the academic ability--the strengths and weaknesses--of the student, such as the level of proficiency in reading, writing, and mathematics. Social factors, such as the ability to interact effectively with other persons, personal attitudes, and cultural history, form the second set of external factors that characterize the individual. The third set of factors, institutional, refers to the practices, strategies, and culture of the college or university that, in either an intended or an unintended way, impact student persistence and achievement. Examples include faculty teaching ability, academic support programming, financial aid, student services, recruitment and admissions, academic services, and curriculum and instruction. (Swail et al., 2003, "three forces affecting student persistence and achievement," para. 1)

The framework embraced by Swail et al. (2003) referenced several components that affect students' persistence: financial aid, recruitment and admissions, academic services, curriculum and instruction, and student services.

The Retention Formula Model

Seidman (2012) defined this model as:

> A very simple concept to understand and to implement when you come right down to it. Ret = Early $_{ID}$ + (E + In + C) $_{IV.}$ That is, Retention equals Early Identification plus (Early plus Intensive plus Continuous) Intervention. And, it applies to all students: right out of high school, adults, and retirees; from any economic status, culture, or religion; brick and mortar institutions, Internet-delivered programs, hybrid institutions, undergraduate, or graduate schools. (p. 268)

Seidman (2012) defined early identification as the assessment of the skills students have upon entering the school, while early intervention was defined as the intervention provided by the institution to increase the skills needed to be successful in college. Seidman's intervention could begin even before the students arrived on campus. It was recommended that the interventions remain in place until students were able to show evidence that they did not need them anymore. Intensive intervention is an intervention provided by the university that is "intensive or strong enough to affect the desired change" (Seidman, 2012, p. 273). Continuous intervention was defined as "an intervention that persists until the change is effected" (Seidman, 2012, p. 274). The purpose of this formula is to:

> Identify a student in need of assistance academically and/or socially as early as possible, assess student needs, prescribe interventions, and monitor, assess, and adjust interventions where necessary. An intervention program can start prior to enrollment, actually having acceptance contingent upon the student successfully completing the intervention. The intervention program must be intensive enough and continue until the desired change is effected. (Seidman, 2012, p. 274)

Positive experiences will reinforce college student's persistence. Student involvement is crucial for this statement to be realized. Student involvement was defined as how much time students spent on campus, interacting with faculty and/or in collegiate activities. Negative experiences weaken the desire students have to complete a chosen degree as well as weaken the willingness to spend the time necessary to accomplish such goals (Astin, 1985). Astin argued that "the time and energy that the student invests in matters relating to family, friends, job, and other outside activities represent a reduction in the time and energy which the student has to devote to his or her educational development" (1985, p. 37).

Institutional Practices

The Association of American Colleges and Universities (2019) has listed several high-impact practices that are considered beneficial for at-risk higher education students who do not share equitable exposure to high-impact learning. These activities could include common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, e-portfolios, service-learning, community-based learning, internships, and capstone courses and projects that have an impact on student retention.

Most universities implement first-year seminars or plans into their curriculum that target a limited number of students who work with faculty or staff on a systematic basis.

> Over the past thirty years, access to higher education has expanded markedly. As in most historical times of expansion, remediation and support programs grow to help new populations make the transition to college. Remediation and support programs grew during the early 1800s when access expanded to include more “common men” in higher education. These programs also grew in the late 1800s when women and blacks entered higher education in larger numbers. Furthermore, after the G.I. Bill and civil rights movement, support programs were again reintroduced to help these new populations attend college. (Kezar, 2000, p. 2)

Over the past few decades, federal and state governments, and other organizations have devoted resources to support entry into post-secondary education (Tinto, 2012a). Despite this effort, and even though access to higher education has increased, the number of students completing a degree has not increased (Supiano, 2011). The data is clear that:

> For four-year colleges and universities, whether public or private, 38% of those who leave will do so in their first year, and 29% in their second year. Since much of the attrition in the second year reflects what happened or did not happen in the first year, it is understandable that many institutions allocate a sizable portion of their scarce resources to the first year of college. (Tinto, 2012a, p. 3)

While the research is clear that student attrition takes place, the research in this field has not been particularly helpful for institutional leaders. This is the case because most research studies incorrectly assumed that understanding the reason behind attrition was equated to an understanding of student success in college. The argument has been made that students need to understand the barriers they face in order to confront them better and solve them. In many cases, minority students have attributed their success to pure luck, while non-minority students have attributed their success to their prior skills and attributes. When students understand the nature of the barriers they face, their rate for completion increases (Padilla, 1999).

Institutional Academic Supports

Student support is an essential factor that contributes to student retention or elevates the chances for first-year students to retain in college. Tinto (2012a) breaks down the work that helped first-year students to persist in higher education as academic support, social support, and financial support. “Nothing is more important to student retention than academic support, especially during the critical first year of college, when student retention is still very responsive to institutional intervention” (Tinto, 2012a, p. 25). There are several ways that institutions provide academic support for students. Academic support is crucial during the first few weeks of school, especially during the first year of schooling (Tinto, 2012a). Tinto (2012a) claimed that:

> Academic support programs abound. They take on a variety of forms, including summer bridge programs, freshman or first-year seminars, learning and tutoring centers, basic-skills or developmental education courses, accelerated courses, study-skill courses, supplemental instruction, academic-assistance learning communities, and embedded academic assistance. (p. 31)

Supplemental Instruction

Supplemental Instruction (SI) in higher education has been embraced at several post-secondary institutions throughout the world and "validated by the U.S. Department of Education as an effective intervention strategy which improves student grades and success rates" (Skoglund et al., 2018, p. 116). Supplemental Instruction (SI) is a strategy that was developed by Dr. Deanna Martin at the University of Missouri-Kansas City in 1973 (Skoglund et al., 2018). The purpose of SI implementation was to improve student retention and grades. According to Skoglund et al. (2018), supplemental instruction is the merging of content with skills and strategies that target the improvement of academic performance. One purpose of such a strategy is to expose students to collaborative learning experiences with peers, in order to provide students with opportunities to work with others and utilize collaboration as the medium to help them become independent learners.

For supplemental instruction (SI) to have a positive impact, the institution must appoint influential SI leaders and SI supervisors. The SI leaders and SI supervisors should be students who have successfully completed the course. These leaders should guide and support new students through the learning experience and apply highly-effective and engaging instructional strategies. "SI is proven to increase mean final course grades for students at all ability levels, regardless of prior achievement" (Hurley et al., 2006, p. 14).

This type of intervention hints at some promising results; however, the question remains, would these practices also be beneficial to minority students, particularly Hispanics? A study conducted by Meling et al. (2013), suggested that this type of intervention showed promising results for academic improvement and retention among Hispanic students. The results of this study showed a significant difference in "academic success and course completion among Hispanic students" (p. 11).

According to Arendale (1997), the US Department of Education supported three claims for institutions implementing effective SI:

> Claim 1. Students participating in SI within the targeted historically difficult courses earn higher mean final course grades than students who do not participate in SI. This was still true when differences are analyzed, despite ethnicity and prior academic achievement.
>
> Claim 2. Despite ethnicity and prior academic achievement, students participating in SI within targeted historically difficult courses succeeded at a higher rate than those who do not participate in SI.
>
> Claim 3. Students participating in SI persisted at the institution (re-enrolling and graduating) at higher rates than students who did not participate in SI. (p. 1)

Hurley et al. (2006) identified SI as an effective tool to improve academic performance and retention and has given credit to high student engagement in participation for the successful results of SI. Hurley et al. (2006) stated that one of the goals of SI sessions was to discontinue the dependency cycle or learned helplessness from the targeted population. The focus of SI was not to repeat information previously reviewed but to create opportunities for peer collaborative learning experiences that advocate acceptance of the campus culture. The focus of SI sessions

was not on the students or the professors, but on the challenging course material. SI literature noted that universities that incorporate SI sessions into their pool of strategies for retention also contributed to the quality of student life. Engaging in SI sessions “expand a student's social network, thereby possibly accelerating the acclimatization process to university life” (Paloyo et al., 2016, p. 66).

Tinto’s research (1982) highlighted strategies that educational leaders could use to improve retention. Tinto emphasized student and faculty expectations for academic and social support, and academic and social engagement. Studies have shown that SI has the potential to help students in all of these aspects (Malm, Bryngfors & Fredriksson, 2018).

Supplemental Instruction (SI) has been found to be effective as a retention and academic success strategy when implemented at a Hispanic-serving institution. Meling et al. (2013) indicated that SI had a statistically significant impact on Hispanic student’s retention. Hongtao et al. (2018) reported that SI was found to be a successful tool to increase GPA, which, in turn, increased the rate of retention. This study argued that SI as an intervention was successful for low-income, first-generation, and at-risk students, including Hispanic students.

Summer Bridge Programs

Over the last thirty years, support programs' goals and mission continue to expand in response to international students, non-English speakers, and disabled students. One of the more popular programs that emerged out of these various waves of increased access was the summer bridge program. Summer bridge programs are designed to assist individuals who will be entering college in the fall. The focus of summer bridge programs varies depending on the specific program’s mission and goals. The main thrust of the programs is to retain these new populations

of students within higher education and to provide them with an equal footing to become academically successful. (Kezar, 2000)

Additionally, summer bridge programs assist higher education institutions with retention, graduation rates, and tuition revenue. Primarily, students who have already been admitted into the institution are invited to participate in these programs. Students attending a summer bridge program are invited to campus during the summer before the beginning of the academic year. Most summer bridge programs consist of small class sizes, staff coaching, peer mentors, faculty, living-learning communities, and support services (Nemelka et al., 2017). Historically, this type of academic support for first-year students has been targeted to minority, at-risk individuals, low-income, and first-generation students. Nevertheless, the number of institutions that provide these types of programs to all students is increasing. “Summer bridge programs are designed to ease the transition to college and support post-secondary success by providing students with the academic skills and social resources needed to succeed in a college environment” (What Works Clearinghouse, 2016, p. 1).

The report from What Works Clearinghouse (2016) showed a positive impact of summer bridge programs on degree attainment for post-secondary students. A study of 2,222 first-year students at Georgia Tech University was conducted to determine the impact of a summer bridge program on degree attainment. This particular summer bridge program consisted of a five-week intervention, involving students in “short, non-credit-bearing courses in calculus, chemistry, computer science, and English composition, which were designed to resemble college-level for-credit courses” (What Works Clearinghouse, 2016, p. 2). Upper-level students from the institution served as mentors. Incoming students who enrolled in this program paid a fee, but it was refunded upon completion based on the GPA obtained. One of the primary purposes during

the five weeks of the summer bridge program was to help first-year students get acquainted with the culture of the institution. The effects of this program showed a statistically significant effect on degree attainment.

Another study at Purdue University (Nemelka et al., 2017) that targeted incoming first-year students showed promise as a result of summer bridge programs. In this case, the targeted population consisted of first-year students who were not accepted into Purdue University because of some flaw in their admittance record, regardless of how high their GPA or ACT scores. Students were offered conditional admission based on the success and completion of the summer bridge program. Students were required to complete seven credit hours during five weeks in the summer before the start of the academic year. Students were responsible for paying for seven credit hours, housing, and dining fees. The control group for this study was a cohort of students entering their first semester of college without any interventions. Even when first-year students participating in this summer bridge program, on average, showed to be less academically prepared for college than their non-summer bridge program peers, students who participated in the summer program showed more persistence during the following semester. The results showed that even when a student's overall GPA dropped in comparison to their summer GPA, it was evident that the summer program made an impact on their persistence and retention.

Another longitudinal study involving a summer bridge program was completed at the University of Arizona (Cabrera et al., 2013). This summer bridge program was initially instituted to help racial minorities, low-income, and first-generation students. This six-week program intended to integrate first-year students into the culture of the institution and provide them with skills that will be needed throughout their college career. The findings from this longitudinal

study suggested that participation in a summer bridge program showed a significant positive correlation with first-year student retention and higher GPA.

Lastly, a report from a four-year study performed at Laredo Community College, a two-year public Hispanic-serving Community College, suggested that summer bridge programs had positive impacts on student retention (Quiroz & Garza, 2017). The data from this study clearly showed that summer bridge programs contributed to improved student performances, and subsequently improved student retention.

Freshman or First-Year Seminars

John N. Gardner at the University of South Carolina introduced first-year seminars (FYS) in 1972 (Schroeder, 2003). Since then, this initiative to lower student attrition has been embraced and modified by most four-year institutions. By 2014, eighty percent of higher-education institutions provided their students with the opportunity to enroll in a first-year seminar (Jaijairam, 2016). One purpose of this type of intervention was to reduce student attrition and elevate retention. It is difficult for first-year students to independently adapt to the college lifestyle; without such interventions, many students would not survive the first year of their college experience. Data suggested that one in four students does not return for his/her second year (Jaijairam, 2016). A priority for FYS mentors was to coach their students on the number of credits needed for their chosen majors.

When utilizing this method of intervention, it is essential for faculty to teach students about the effects of drinking and the effects this habit might have on their college success. Hobbies and exercise are encouraged. Some institutions mentor their students to get to know their community and to participate in community service activities. Another vital component of first-year seminars was to teach study techniques that were most effective for college students.

Another responsibility of the faculty involved in the first-year seminar was to guide students to the resources available to them through their university library. Further, some institutions have their faculty explain to first-year students the nuances of college and university housing and help them to locate ideal roommates.

Successful first-year seminars showed a “strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students’ intellectual and practical competencies” (Association of American Colleges and Universities, 2019). First-year seminars (FYS) have taken several forms at different institutions. Most universities that utilize first-year seminars as a retention strategy associate their FYS with one-college credit. The variety of programs also focus on building skills that strengthen overall student success like “time management, college-level research and writing, developing familiarity with campus resources, and learning to communicate with faculty” (Sobel, 2018, p. 68).

Sobel (2018) suggested that these skills could be taught in a separate skills class or implemented through another course, if not in individual programs. Regardless of the way institutions approach this intervention, it was observed that institutions that implemented a course for the delivery and the implementation of such skills realized greater student retention.

Porter and Swing (2006) evaluated data from 20,000 first-year students’ surveys from 45 four-year institutions, to determine the impact of first-year seminars on students' persistence. The outcome of the Porter and Swing (2006) study was that these first-year seminars had the most significant impact on students’ persistence. The data was analyzed by utilizing a “multilevel modeling approach to estimate the impact of specific elements of first-year seminars on intent to persist” (Porter & Swing, 2006, p. 94). The study suggested that students who enrolled with

higher high school GPAs were more likely to return to the institution the following year. It was also noted that students who worked many hours during the week were less likely to return the following year. Thus, working too many hours while getting a college degree could hinder student retention.

Another study on the effectiveness of first-year seminars was performed at the University of Johannesburg (Jacobs & Pretorius, 2016). The focus of this study was on the impact of coaching problem-solving skills on these student's performance in mathematics. The results from the study indicated that there was a correlation indicating that student performance in mathematics was substantially higher for students that enrolled in first-year seminars when compared with students that did not participate in such seminars.

Clark and Cundiff (2011) studied the effectiveness that first-year seminars provided to new students enrolled in their first-year seminar courses and those students that did not enroll. The main purpose of the intervention was to help first-year students experience a successful transition to the culture of the university. This program tried to increase student-peer and student-faculty relations by creating a three-credit-hour, semester-long elective course. One of the main goals for this intervention was to "improve the conscientiousness and efficiency of students' study habits and curriculum planning; make students aware of opportunities to maintain a healthy lifestyle; and develop new, academically-based friendships" (Clark & Cundiff, 2011, p. 622). The study suggested that GPA was not impacted by the effects of this first-year seminar, but after

> Adjustments were made, the magnitude of the treatment effect depended on the adjustment method. Although adding propensity scores improved the model fit for both stratification ($X^2(8) = 15.340$, $p = 0.052$) and matching ($x^2(1) = 20.360$, $p < 0.001$), only

> when we matched on propensity scores and included GPA as a covariate did we find increased retention rates for those in the program. (Clark & Cundiff, 2011, p. 631)

Although the literature shared in this section supported first-year seminars, summer bridge programs, and supplemental instruction, there are other types of supports available that affect student attrition. Several institutions, with assistance from state and federal funding, provide students with a cluster of services and programs that support degree completion. The Federal Student Support Services (FSSS) is one of the most utilized programs implemented at post-secondary institutions (U.S. Department of Education, 2019). Pascarella and Terenzini (2005) reported that "research consistently indicates that such comprehensive programs have a statistically significant and positive effect on student persistence" (p. 405).

Student Involvement Factors

Perhaps one of the most critical factors affecting first-year student attrition can be attributed to student involvement, also referred to as engagement (Astin, 1985; Tinto, 1975). The literature suggested that the more contact and involvement individuals had with faculty and members of the campus community, the more likely students would remain in the institution and reach their goal of graduation (Astin, 1985; Pascarella, 1980; Tinto, 1975). It is important to note that student involvement with faculty and members of the campus community was a critical factor that increased retention for all students, including minority and at-risk first-year students (Fischer, 2007).

Retention is greatly influenced by social and academic involvement. Socially, students benefit from interacting with faculty and other students (Astin, 1985; Pascarella & Terenzini, 1979). Students who described having positive interactions with faculty performed better academically, which, in turn, increased their academic achievement and reduced attrition.

Pascarella and Terenzini (2005) emphasized that “student contact with faculty members outside the classroom appears consistently to promote student persistence, educational aspirations, and degree completion, even when other factors are taken into account” (p. 417). Barnett (2011) suggested that when faculty members “showed caring instruction, got to know their students, showed that students were valued, and demonstrated an appreciation for diversity and mentoring, the effect was positively associated with student retention” (p. 212).

Lucy-Bouler and Lucy-Bouler (2012) reported that student involvement with the community suggested that higher education students increased their retention when involved in courses that promoted service-learning as part of their curriculum. Gabriel (2018) conducted a study at a Midwest university, where students’ retention rates were compared with a control group in regards to institutional involvement and its positive impact. Students at this university were involved in an outdoor-orienteering program. Students participating in this intervention took part in an eight-day canoeing or backpacking activity, along with a three-credit course in the fall semester. All students participating in this program worked collaboratively to accomplish several challenging tasks. In the fall, “all students join again in a college seminar course that focuses on critical thinking, writing, and creative development. Students worked separately and in groups on projects that utilized experiences from the field-based portions of the course” (Gabriel, 2018, p. 282). Gabriel (2018) found substantial improvement in student retention between the students who participated in this program and the control group.

Masika and Jones (2016) conducted a study to calibrate how a sense of belonging supported retention. The results revealed that when first-year students built a sense of belonging within the institution’s culture, it decreased the likelihood that these students would drop out. The study suggested that in order for “belonging” to make a difference in retention, students

needed to feel a connection to their courses and be engaged in learning experiences within those courses.

Tinto (2012a) suggested:

> Involvement or, better yet, the quality of involvement also depends on the degree to which individuals see their involvement as relevant. Individuals are more likely to become involved in those forms of activity that are perceived to be relevant or at least meaningfully related to their interests broadly understood. (p. 67)

Understanding that involvement positively influences retention, institutions face the challenges of identifying which type of involvement will bring results that are significant for their population of students. Pascarella and Terenzini (2005) argued that student engagement and social relationships were enhanced for first-year students when university professors implement cooperative or collaborative learning and problem or project-based learning. Pascarella and Terenzini (2005) emphasized that the "evidence on the effectiveness of such programs, just beginning to emerge, suggest the mix of student-faculty contact and active learning is relatively potent with respect to persistence and degree completion" (p. 406).

According to Astin (1993), peer group influence was composed of psychological and sociological dimensions. Astin (1993) defined a peer group as "a collection of individuals with whom the individual identifies and affiliates and from whom the individual seeks acceptance or approval" (p. 400). Astin (1993) defined identification as "the person's beliefs; that I am like these other people in certain key respects and that they are like me" (p. 400). Psychologically, students tended to interact and identify with individuals who are alike and had similar characteristics. Sociologically, students tended to follow the group's norms and follow its

influence. Pascarella and Terenzini (2005) suggested that the research on peer "influence is a statistically significant and positive force in student's persistence decision" (p. 418).

Student Involvement Factors Affecting Hispanic Student Retention

Schooling Experiences Beyond Academics

Oseguera et al. (2009) suggested that Hispanics,

> Are particularly vulnerable to developing negative academic self-concepts and having negative perceptions of the campus climate because of their social position, history of underrepresentation on college campuses, and dissonance between the cultural expectations of higher education institutions and their home cultures. (p. 33)

Nora and Crisp (2009) reported that the majority of students who withdrew from college during their second year were likely to be African-American or Hispanic, and less likely to be White or Asian-American "when compared to the ethnic distribution of the entering cohort" (p. 233).

Before enrolling in a post-secondary institution, students often are tracked based on test scores. It is vital to comprehend that relying too much on these standardized assessments for college admission gives these exams a considerable amount of social weight, and for the most part, these procedures determine the opportunities Hispanic students experience during their educational careers (Oseguera et al., 2009). Walpole et al. (2005) have contributed to the literature on the aspect of anxiety and stress shown by Hispanic students by reporting that Hispanic students "were concerned about the radical discrepancies between their dream schools and the schools that were within their reach given their SAT scores" (p. 338). Contreras (2005) suggested that,

> Latino students perceive themselves to be less academically competitive than their White and Asian counterparts with the majority of students rating their ability as slightly higher

> than average or average. Although this is an initial descriptive analysis, this finding suggests that by the time, Latino students get to high school, their self-perception with respect to their potential and ability has largely been shaped by the school system. (p. 203)

Oseguera et al. (2009) called upon all higher education leaders to conscientiously make the efforts to,

> Ensure that students remain intellectually committed, socially engaged, and enthusiastic about their educational prospects. Campus leaders should focus their efforts on creating inclusive and responsive campus environments in which students can continue to develop their academic progress and engage the expected challenges of college life without additional constraints. (p. 35)

Identity and Institutional Environment

The literature related to the way cultural and ethnical affiliation influence how students make sense of their daily experiences is continually expanding. Hispanic students enrolled at post-secondary institutions are faced with customs that are particular to the institution that do not match "their own traditions and assumption-based practices about students that do not apply to them" (Oseguera et al., 2009, p. 35). Current literature describes how the transition to post-secondary influences the identity of Hispanic students.

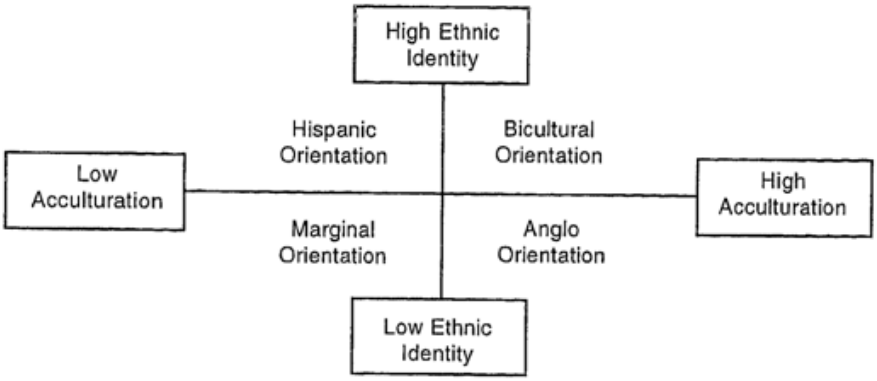
Torres (1999) introduced a model that explained how Hispanic students assimilate to the dominant culture. *The Bicultural Orientation Model* (BOM) is composed of four quadrants, created by intersecting acculturation and ethnic identity (see Figure 1).

A person with a high level of acculturation and a high level of ethnic identity

Has a Bicultural Orientation, indicating a preference to function competently in both the Hispanic and Anglo cultures. A person with a high level of acculturation and low level of ethnic identity has an Anglo Orientation, indicating a preference to function within the Anglo culture. A person with a low level of acculturation and a high level of ethnic identity has a Hispanic Orientation, indicating a preference to function within the Hispanic culture. A person with a low level of acculturation and a low level of ethnic identity is considered Marginal, indicating that he or she is not able to function adequately within the Hispanic or Anglo cultures. (Torres, 1999, p. 286-287)

Figure 1

Description of the Bicultural Orientation Model (BOM)



Grit

For decades researchers have tried to discover the secret of success (Duckworth, 2016). Some individuals might say that it is the talent that counts for success, while others might argue that effort is what matters; despite these beliefs, “for years, several national surveys have asked: Which is more important to success - talent or effort?” (Duckworth, 2016, p. 23). After a series of experiments and research, Duckworth (2016) authored the theory of the psychology of achievement which states that:

> When you consider individuals in identical circumstances, what each achieves depends on just two things, talent and effort. Talent - how fast we improve in skill- absolutely matters. But effort factors into the calculations twice, not once. Effort builds skill. At the very same time, effort makes skill productive. (p. 42)

Duckworth (2016) refined the definition of success by adding to the equation the term "grit." Grit is defined by Duckworth (2016) as "working on something you care about so much that you're willing to stay loyal to it … it is doing what you love, but just not falling in love – staying in love" (p. 54). According to Duckworth (2016), "Grit has two components: passion and perseverance" (p. 56). Even when individuals believe that IQ is critical for success, it has been studied that cognitive intelligence, although it is influential for success, it is not the main contributor to success. A study by Cox (1926) on the characteristics of high achievers suggested that intelligence combined with persistence brought success among great minds.

Duckworth (2016) has developed a Grit Scale that determines an individual's level of grit. It is important to note that grit is not a constant value we carry through life; instead, grit differs with time and with different circumstances, i.e., grit "can change" (Duckworth, p. 56). Duckworth (2016) concluded that individuals showing greater grit have shown to have developed the following assets: interest, capacity to practice, purpose, and hope.

Interest is characterized in people with grit as the enjoyment of what an individual does. Although most individuals can point out several dislikeable aspects of a task they do, these individuals are capable of coping with these dislikable aspects; nevertheless, they are "captivated by the endeavor as a whole" (Duckworth, 2016, p. 91). The capacity of individuals who possess grit is referred to as the continual attitude of trying to improve. Duckworth (2016) describes this as the "after you've discovered and developed interest in a particular area, you must devote

yourself to the sort of focused, full-hearted, challenge-exceeding-skill practice that leads to mastery" (p. 91).

Purpose is necessary, for no one could endure much without having a focused purpose. In fact, Duckworth (2016) discovered that individual exemplars of grit continuously keep in mind that their "work is important - both to [them] and to others" (p. 91). Finally, hope is necessary. Although it is mentioned as the last characteristic of gritty individuals, hope must be cultivated throughout the journey for "it is important to learn to keep going even when things are difficult, even when we have doubts" (Duckworth, 2016, p. 92).

Saunders-Scott et al. (2018) compared high school graduates' GPA and ACT scores (traditional predictors) to stress and grit (non-traditional predictors) to determine the best predictors of academic success. The results from this study indicated that high school GPA and ACT scores were excellent predictors of college GPA but poor predictors of college retention. Contrarily, stress and grit were poor predictors of college GPA but were statistically significant predictors of student retention.

In a study related to college student retention, McClendon et al. (2017) observed an increase in student resilience to dropping out when students were purposely exposed to strategies to increase grit. These targeted strategies increased non-cognitive traits that led to increased retention. Buskirk-Cohen and Plants (2019) conducted a study at a small teaching-oriented university on how grit impacted student retention. Buskirk-Cohen and Plants (2019) set out to compare certain attributes that might contribute to student retention and found that students with low performance and low commitment were significantly lower than all other groups on self-reported professors' pedagogical caring.

Grit and Hispanic College Students

Vela et al. (2018) reported on the positive impact of hope on grit among Hispanic college students. Vela et al. (2018) suggested that school counselors and advisors should help and encourage Hispanic students to increase their hope, which in turn increases the level of passion and perseverance to pursue a goal. Furthermore, grit has been found to be a "potential protective factor against substance use and delinquent behaviors among low-income Latino adolescents" (Guerrero et al., 2016, p. 280). Furthermore, Vela et al. (2015), reported that hope was the strongest predictor of psychological grit among Hispanic college students. Vela et al. (2015) reported that their findings suggest "that as the amount of hope increases, the level of psychological grit among… [Hispanic] college students increased" (p. 296).

O'Neal et al. (2018) reported the positive effects of grit on Hispanic college students, and how this population of students relies on grit to overcome challenges and opposition, including academic persistence, to reach their goals. O'Neal et al. (2018) reported that, "Grit was spurred by participants' desires to resist stereotypes, overcome challenges, and make their families proud, especially because they would be the first in their families to graduate from college" (p. 460). Furthermore, O'Neal et al. (2018) discovered that for Hispanic students, "grit…[was] a fuel moving participants toward their long-term goals … exhibited through pride, optimism, and perseverance, often a way of coping with stress and depression" (p. 461).

Wolters and Hussain (2015) indicated that grit was a strong positive predictor of successful completion of academic tasks for students. Wolters and Hussain's study showed that increased grit was consistently associated with inhibiting "behaviors that disrupt effective academic functioning" (2015, p. 305). Wolters and Hussain (2015) conducted their study with

"participants [that] were a diverse group of students at a large public university with modest admission standards" (p. 307).

Further, a study on grit and its positive effects in the learning process suggested that grit plays a critical part in the success of culturally and linguistically diverse populations (O'Neal et al., 2018). A study on low-income high school seniors by Mandelbaum (2018) indicated that individuals who participated in positive and nurturing relationships were more likely to be grittier. Mandelbaum (2018) suggested that for disadvantaged populations, the development of interventions to cultivate relationships might increase the levels of grittiness for these students.

Piña-Watson et al. (2015) examined the effects of grit and culture among Mexican-American adolescents. Piña-Watson et al. (2015) concluded that grit, along with hope and strong family ties, positively predicted academic motivation among Mexican-American adolescents. Vela et al. (2017) reported that grit increases college retention among minority students. Vela et al. (2017) reported the positive impact of grit on Mexican-American college students.

Lastly, Duckworth (2016) identified grit as a potential indicator of Hispanic college students' persistence for retention. Buzzetto-Hollywood and Mitchell (2019) concluded from a longitudinal study on grit and its positive effects on minority populations that "there is a significant positive correlation between grit scores and both GPA and persistence to graduation" (p. 378) at minority-serving institutions.

Summary

Chapter Two provided a review of the current literature related to student retention. This chapter was divided into four main parts; the first part of the chapter shared a demographic overview of the Hispanic population and the status and trends in higher education of the Hispanic population. The second part consisted of a concise history of retention and models of

student retention, including major institutional academic supports for first-year students. The third part provided a literature review of student involvement factors, including specific factors that affect Hispanic students in higher education. The fourth part provided a literature review for grit (Duckworth, 2016), an approach that improves the psychology of college students to build resilience and endurance through difficulties.

Helping all students understand the processes associated with entry and acclimation into their new collegiate environment and, thereby, increase retention rates, is a goal for all educational leaders. Institution leaders will be well-served to comprehend this complicated, yet, understandable process and make a significant effort to assist Hispanic students as they matriculate through their program of study (Hanger et al., 2011).

Furthermore, Pizzolato (2004) conducted a study that indicated that first-year, high-risk students, faced difficult interactive situations with peers and faculty members that reinforced their feelings of incompetence. When these first-year, high-risk college students compared themselves to peers who were not identified as high-risk, these individuals encountered and fostered feelings of deficiency. “It’s difficult when you feel dumber than everyone in your class, but it’s worse when a professor acts like you’re dumb just because who you are… without giving you a real chance” (Pizzolato, 2004, p. 431). It was noted that these unavoidable situations contribute to high-risk minority students' sense of powerlessness over their academic progress which in turn, hindered their retention.

In the last decade, research has shown that earning a college degree has increased employment opportunities. In fact, “college graduates outnumber[ed] high school-educated workers in the workforce for the first time ever” (Carnevale, Jayasundera, at al., 2016). Hispanic

students are one of the largest youth populations in the country (Lopez et al., 2018) and deserve the education and employment opportunities afforded to other ethnic groups.

Chapter Three: Methodology

For decades, higher education leaders have attempted to determine why some first-year students drop out of college before the end of their first year (Brown, 2012). Efforts to explain this phenomenon flourished in the 1950s, when "several campuses had begun to regularly monitor enrollments" (Berger et al., 2012, p. 21). Berger et al. (2012) also noted that the data gathered from different institutions regarding student attrition revealed that academic integration had less of an impact on student attrition than the impact of social integration.

Institutions differ on student retention rates. While some private universities can issue certificates of completion to 90% of their first-year freshmen, some public institutions graduate fewer than 30% of their first-year freshmen (Tinto, 2012b). Despite these figures and the decades of research on student retention, post-secondary institutions have not been able to identify a coherent and robust infrastructure to successfully categorize those actions that promote retention. Tinto (2012b) suggested that higher education leaders had forgotten the central place where student retention is most successful; the classroom.

"Despite years of retention efforts, graduation rates of certain populations remain alarming low. Of the Latina/o students who enroll in college, only 46% attain their bachelor's degree" (Oseguera et al., 2009, p. 23). Teenage Hispanics account for 35 million people in the United States, and that number continues to grow (Pew Research Center, 2017). As a result, the Hispanic youth population is one of the largest youth populations in the country (Lopez et al., 2018); therefore, careful and specific retention interventions by higher education leaders need to be considered to successfully monitor and support the enrollment and retention of Hispanic students in college.

Tinto (2012b) emphasized that if institutions wanted to increase retention and graduation significantly, especially those from low-income backgrounds,

> Their actions must be centered on the classroom. They must focus on improving success in the classroom, particularly during the first year and lead to changes in the way classes are structured and taught, in turn, experienced by students, especially those who have not fared well in the past. (p. 6)

It is important to note that despite the Hispanic population's rapid growth, the Hispanic population continues to be considered as one of the most significant minority groups that is undereducated in the United States. Additionally, studies have revealed an increased gap in degree completion, between Hispanics and Whites (Carnevale & Fasules, 2017), putting the Hispanic population at a decided disadvantage. These findings are particularly concerning since Hispanics account for 18.1% of the total U.S. population (U.S. Census Bureau, 2018a). Studies have shown that there are several benefits and advantages gained from earning a college degree (Hermannsson et al., 2017), and Hispanics deserve the same opportunity to succeed at earning a college degree as their Anglo fellows.

This chapter restates the problem, the purpose of the study, and the research questions selected for this study. The research design for the study, population and sample, and data collection procedures are offered. Furthermore, this chapter includes information on data collection and data analysis. This chapter concludes with a summary.

Problem and Purpose Overview

Hispanics continue to be the largest minority group in the United States (Cantrell & Brown-Welty, 2014; U.S. Census Bureau, 2018b). Schmidt (2003) reported that the Hispanic population had been the least-educated major racial or ethnic group in the United States. Just 11

percent of Hispanics over the age of 25 have a bachelor's degree, compared with about 17 percent of Black, 27 percent of White, and 47 percent of Asian-American adults in the same age bracket. More than forty percent of Hispanic adults over 25 never graduated from high school, and more than twenty-five percent have less than a ninth-grade education (Schmidt, 2003).

According to a report regarding Hispanic education conducted by Carnevale and Fasules (2017), compared to White and Blacks, Hispanics were also behind in post-secondary degree attainment. In 1992, Latinos were 23 percentage points behind Whites and ten percentage points behind Blacks in earning some type of post-secondary degree. The percent of Hispanics earning a post-secondary degree continued to fall while their population was growing faster than other ethnic populations. Between 1992 and 2016, the Hispanic population share grew by 9 percent, while the share of Hispanics with some post-secondary education grew by just 6 percent (Carnevale & Fasules, 2017, p. 26). Carnevale and Fasules (2017) noted that the progress made by native-born Hispanics in education "more closely mirrors the educational attainment of Blacks but is still lower than the educational attainment of Whites" (p. 26).

Oseguera et al. (2009) suggested that Hispanics were,

> particularly vulnerable to developing negative academic self-concepts and having negative perceptions of the campus climate because of their social position, history of underrepresentation on college campuses, and dissonance between the cultural expectations of higher education institutions and their home cultures. (p. 33)

Nora and Crisp (2009) reported that the majority of students who withdrew from college during their second year were likely to be African-American or Hispanic, and less likely to be White or Asian-American "when compared to the ethnic distribution of the entering cohort" (p. 233).

The literature related to the way cultural and ethnic affiliation influenced minority college students noted that students' efforts to make sense of their daily experiences was continually expanding. Hispanic students enrolled at post-secondary institutions are faced with customs that are particular to the institution and frequently do not match "their own traditions and assumption-based practices about students that do not apply to them" (Oseguera et al., 2009, p. 35). Current literature described the degree the transition to post-secondary education influenced the identity of Hispanic students.

Interestingly, Pizzolato (2004) conducted a study that indicated that first-year, high-risk students, faced difficult interactive situations with peers and faculty members that reinforced their feelings of incompetence. When first-year, high-risk college students compared themselves to peers who were not identified as high-risk, these individuals encountered and fostered feelings of deficiency. "It's difficult when you feel dumber than everyone in your class, but it's worse when a professor acts like you're dumb just because of who you are without giving you a real chance" (Pizzolato, 2004, p. 431). It was noted that these unavoidable situations contributed to high-risk minority students' feelings of being powerless over their level of academic achievement, which in turn hindered their retention rates.

O'Neal et al. (2016) contributed research on the importance of grit for Hispanic college students. O'Neal et al. (2016) reported the positive effects of grit and noted that Hispanic college students relied heavily on grit to overcome their challenges and opposition, including academic persistence, to reach their goals. O'Neal et al. (2016) reported that "Grit was spurred by participants' desires to resist stereotypes, overcome challenges, and make their families proud, especially because they would be the first in their families to graduate from college" (p. 460). Furthermore, O'Neal et al. (2016) discovered that for Hispanic students, "grit [was] a fuel

moving participants toward their long-term goals exhibited through pride, optimism, and perseverance, often a way of coping with stress and depression" (p. 461).

Piña-Watson et al. (2015) examined the effects of grit and culture among Mexican-American adolescents. Piña-Watson et al. (2015) concluded that grit, along with hope and strong family ties, positively predicted academic motivation among Mexican-American adolescents. Vela et al. (2017) reported that grit increased college retention, particularly among minority students. Vela et al. (2017) reported that grit had a positive impact on Mexican-American college students' retention in college.

Lastly, to support the literature of grit as an indicator of Hispanic college students' persistence for retention, Buzzetto-Hollywood and Mitchell (2019) concluded from a longitudinal study on grit and its positive effects on minority populations that "there is a significant positive correlation between grit scores and both GPA and persistence to graduation" for minority students (p. 378).

In the last decade, research has shown that earning a college degree has increased employment opportunities. In fact, "college graduates outnumber[ed] high school-educated workers in the workforce for the first time ever" (Carnevale, et al., 2016). Hispanic students comprise one of the largest youth populations in the country (Lopez et al., 2018) and deserve the education and employment opportunities afforded to other ethnic groups. It is essential that educational leaders provide retention programs that target the needs of underserved and culturally diverse students so they can improve their employment opportunities.

The purpose of this study was to compare the relationship between grit and retention for first-year Hispanic students taking a transitional college course with that of their White peers at a predominantly White institution. The data for this study was collected from two consecutive

academic semesters of the College Success course, winter 2020 (January-April) and spring 2020 (April-July) academic semesters.

The College Success course at the study site is a class offered to all first-year students. The College Success course is directed and facilitated by faculty appointed by university leaders with the primary goal of increasing student retention by increasing the student's level of grit. This course is viewed as an extension to the institution's freshman orientation program provided during a student's first academic semester. Students taking this course enroll for one academic credit and are required to take the Student Success course. The Student Success course served as one of the specific retention strategies targeting students who had earned fewer than 20 college credits.

Evaluation of the grit portion of the College Success course will allow educational leaders to determine whether this intervention provided by the university contributed to the overall retention of first-year Hispanic students.

For the purpose of this study, the research informed educational leaders whether or not the components of grit taught during the College Success course had a similar impact on Hispanic student retention as that of their White peers. The results of the study will allow institutional decision-makers to determine if the specific components of grit, emphasized and taught to students in the College Success course supported student retention for first-year Hispanic students at a level comparable to that of first-year White students. The impact of the study was measured by a quantitative comparison of the correlation rates for Hispanic students who completed the College Success course and the correlation rates for White students who completed the College Success course.

Educational leaders have the responsibility to help all students understand the processes associated with entry into post-secondary institutions that acclimate these students to their new collegiate environment and, thereby, increase retention rates. For this to take place, institutional leaders need to comprehend this complicated, yet, understandable process and make a significant effort to assist Hispanic students transition to their higher education program of study (Hanger et al., 2011). The results of this study are expected to encourage educational leaders to create learning environments and strategies that increase student retention, specifically for first-year Hispanic students.

Research Questions

The following research questions are proposed to guide this study:

1. Is there a statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site?

   H_0: There is no statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

   H_1: There is a statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

2. Is there a statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site?

H_0: There is no statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

H_1: There is a statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site.

3. Is there a statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in the College Success course at the study site?

   H_0: There is no statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in a College Success course at the study site.

   H_1: There is a statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in a College Success course at the study site.

4. Is there a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course?

   H_0: There is not a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course.

H_1: There is a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course.

Research Design

Quantitative research is used as "a means for testing objective theories by examining the relationship among variables" (Creswell & Creswell, 2018, p. 250). Investigators use this type of research to manipulate or collect data through predetermined instruments; "quantitative research methods are characterized by the fact that these data are being subjected to statistical analyses" (Boeren, 2018, p. 66). "One type of nonexperimental quantitative research is causal-comparative research in which the investigator compares two or more groups in terms of a cause (or independent variable) that has already happened" (Creswell & Creswell, 2018, p. 12). In order to address the research questions created to guide this study, causal-comparative research was chosen. In quantitative research, cause is a "phenomenon that leads to a change in another phenomenon" (Vogt et al., 2012, p. 337).

Causal-comparative research is utilized when "two or more groups that already differ in a certain way are compared on one or more variables. There is no manipulation or intervention on the part of the researchers" (Wallen & Fraenkel, 2000, p. 330). Causal-comparative research allows researchers to attempt to determine "the results of, this difference" (p. 330).

In this study, the difference between the groups was ethnicity, a variable that could not be manipulated. "Causal-comparative designs generally involve the use of pre-existing or derived groups to explore differences between or among those groups on outcome or dependent variables" (Schenker & Rumrill, 2004, p. 117). "Causal-comparative research is also referred to

sometimes as *ex-post facto* (from the Latin for "after the fact") research" (Fraenkel et al., 2019, p. 344) which is different from an experimental study. In experimental studies, researchers create a difference between groups before comparing their performance. Fraenkel et al. (2019) emphasized that with correlational studies, researchers can identify relationships, but causation cannot be completely determined. One of the limitations of causal-comparative studies is the threat to internal validity.

In this study, there were independent and dependent variables. "Dependent variables are those that depend on the independent variables; they are the outcomes or results of the influence of the independent variable" (Creswell & Creswell, 2018, p. 51). In this study, for research questions one and two, grit depended on ethnicity; therefore, grit was the dependent variable. For research question four, retention depended on grit; therefore, retention was the dependent variable and grit was the independent variable. Some researchers might assume that because they are investigating causality, they can "expect variable X to cause variable Y" (Creswell & Creswell, 2018, p. 50), but we need to be careful that "an unmeasured third variable (Z) may be the cause of the outcome" being measured (p. 50). Independent variables are known as a "variable that affects (or is presumed to affect) the dependent variable under study and is included in the research design so that its effects can be determined" (Fraenkel et al., 2019, p. G-4). In this study, ethnicity is always an independent, fixed variable.

Population and Sample

A population is defined as the group of individuals that participate in a study (Creswell & Creswell, 2018). The data of the population in this section represents the most recent available institutional data from the study site. The institution had not completely released data related to the winter 2020 and spring 2020 semesters, which were the semesters for this study; however,

the numbers displayed for the spring and winter 2019 academic semesters should be similar to the winter 2020, and spring 2020 semesters. The enrollment at the study site consisted of 20,246 students during the 2019 spring semester (Institutional Data, 2019). Students in the 18 to 21 years of age category comprised 29.4% of the total student body population; students from 22 to 24 years of age comprised 21.7%, students from 25 to 29 years of age comprised 13.6%, students from 30 to 34 years of age comprised 7.4% of its population, and interestingly, students that were 35 years of age and older, made up 26.8% of the total population of students enrolled at this institution.

The first-time, degree-seeking freshmen retention rate for the 2019-2020 academic year was approximately 74.1%, and the institution's graduation rate reported in 2020 for those obtaining a bachelor's degree was 53% (Institutional Data, 2020). According to College Factual (2020), this institution's undergraduate student diversity was below the national average. During the 2019-2020 academic year, the institution indicated that a total of 939 Hispanics enrolled in classes (Institutional Data, 2020).

During the 2019-2020 academic year, a total of 5,233 students participated in the College Success course. From the total number of students, 4,015 (76.7%) self-identified as White, and 273 (5.2%) self-identified as Hispanic (Institutional Data, 2020). During the 2020 Winter (January-April) academic semester, the College Success course enrolled 1,765 students, from which 779 self-identified themselves as female, and 986 as males. During this period, 1,342 students self-identified themselves as White, and 119 as Hispanic (Institutional Data, 2020).

The sample for this study was composed of first-year students enrolled in the College Success course at the site of study. The data was gathered during two consecutive academic semesters, winter 2020 (January-April) and spring 2020 (April-July). The sample for this study

was selected from individuals who identified themselves as White or Hispanic in the demographic portion of the survey. Because first-year Hispanic participants in this study were fewer than their first-year White peers, the researcher randomly selected a similar number of respondents from the first-year White population to match the number of responses of the first-year Hispanic population. Other demographic variables that were collected included age, gender, native language, and whether or not the participants had served a full-time religious mission.

Instrument

A survey was used to collect data for this study. A survey design provided "plans for a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (Creswell & Creswell, 2018, p. 251). In order to help the researcher of this study to collect information, the Short Grit Scale (Grit-S) (Duckworth & Quinn, 2009) was utilized to collect the data (see Appendix A). The Short Grit Scale is an efficient measure of grit; in fact, "the 8-item Grit-S is both shorter and psychometrically stronger than the 12-item Grit-O" (Duckworth & Quinn, 2009, p. 174). In order to make the instrument more applicable to this study and the College Success course, the institution made sure the questions became domain-specific (Cormier et al., 2019) to the applicable purpose of the survey (see Appendix B). To keep the name of the institution from the survey (see Appendix B), the researcher replaced the name of the institution with the words 'institution's name'. The name of the institution of study appeared on the actual survey instrument that participants responded to.

The Short Grit Scale (Grit-S) is a valid and reliable instrument (Sigmundsson et al., 2020). Duckworth and Quin (2009) stated that,

> Confirmatory factor analyses supported a two-factor structure of the self-report version of Grit-S in which Consistency of Interest and Perseverance of Effort both loaded on grit as

a second-order latent factor. Both factors showed adequate internal consistency and were strongly intercorrelated, $r = .59$, $p < .001$. (p. 172)

The Short Grit Scale (Grit-S) survey questions used in this study were part of a larger institution-designed survey that has been administered to students enrolled in the College Success course. The entire survey addresses multiple topics, including a subset of eight questions that made up the Short Grit Scale (Grit-S) items. Responses to these eight items were the focus of this study. The survey was administered to all students enrolled in the College Success course, at the beginning and the end of the course during consecutive semesters, as a pre and post-test. Within the institution-designed survey, some demographic questions helped the researcher identify sub-groups and differentiate the data. The total survey consists of 90 items, but only eight of the items pertained to this study on grit. The researcher invited all enrolled students to participate in this research. Participants in this study were given a choice to complete the survey. Although the survey was part of the College Success course, participants were not penalized for not completing the survey. Participants in this study were able to access the online Qualtrics format of the survey, where they learned the purpose of the research. Participants were asked electronically to consent to participate in the study (see Appendix C). Participants in this study were informed that they had the freedom to stop participating in the study at any given time without any consequences for doing so. Once consent was given, the participants had the choice to provide their demographic information and respond to the grit-related survey items.

A faculty member from the Academic Support Services gathered all of the responses from the surveys. The 90-item survey was not anonymous. Students participating in the survey disclosed their full names. However, this data was anonymized by the researcher in order to protect the identity of the participants. This data was available through the Qualtrics Survey

Software. The data was downloaded and saved onto the institution's server for security purposes. This information was subsequently transferred to an Excel Sheet, making sure pretest and posttest results were paired and correctly transcribed at the individual level. The institution provided permission for the researcher of this study to pair the data. The researcher made sure the information and identity of the participants were not disclosed while pairing and transferring the data for analysis. In order to make sure respondents were entirely unknown to anyone associated with the responses from the survey, the researcher assigned a unique identification variable to each participant in the study.

Because first-year Hispanic participants in this study were fewer than their first-year White peers, the researcher randomly selected a similar number of respondents from the first-year White population to match the number of responses of the first-year Hispanic population. In order to randomize the selection of first-year White respondents, a computer random number organizer, 'www.randomizer.org,' was utilized by the researcher.

Survey participants used a continuous scale to rate their agreement for each survey item. The original Short Grit Scale (Grit-S) recommended a 5-point Likert scale, but the institution uses a 4-point Likert scale in order to create a forced-choice method of responses. This format "increases the number of survey records with responses that are usable for analysis [and] encourage respondents to provide an actual response" (Lavrakas, 2008, p. 289). A value to formatting surveys or questionaries by eliminating the "nonresponse" type choice is that participants will choose a response option that will provide a particular answer in the tool used for collecting the data. There are some disadvantages the 'forced choice' might bring to the data collection.

Lavrakas (2008) explained:

> The primary disadvantage is that it can contribute to measurement errors, nonresponse errors, or both. Whereas, the forced choice format can discourage respondent laziness and encourage them to provide a thoughtful response, the requirement of a response can encourage respondents to answer a question in a way that does not truly reflect what they think and feel. Some respondents really may not know how they feel about an issue or may not know the information requested, and forcing a response would result in the collection of erroneous data. Also, by "forcing" a response by not providing a respondent a valid response option that indicates that she or he does not have an opinion or does not care to provide an answer to a specific question, the researcher may be increasing the chances that some respondents will be frustrated and offended and thus terminate their participation before they complete the questionnaire. (p. 290)

Data Collection

To proceed with this study, permission from the study site and Idaho State University was obtained from their respective Institutional Review Boards (IRB). Meetings with the Freshmen Success Center Director from the study institution took place in the Director's office. Only the researcher and the Director were present at the meeting. The purpose of the meeting with the Director was to discuss the components of the College Success course, coordinate participation of students in the study, outline the data collection process, and generate ways to protect the privacy of the participants. Data was collected in the College Success course during the second day of classes, and again at the end of the semester, approximately one week before the end of the academic semester. The survey was embedded in the course as a quiz. This approach directed the student's attention to the survey; however, students are not required to

complete the survey and will receive full credit for the quiz, whether they complete the survey or not.

The data was coded and tabulated. Coding is the process of organizing gathered information into categories and tabulation is the process of placing coded information into tables. A unique identification variable was assigned to each participant in the study. Code categories were precisely defined. Participant ethnicity and gender was coded in a nominal format. Participant age was recorded on a scale or ratio format. Data relative to the grit of the participants was coded in an ordinal format. The data collected was recorded on the researcher's computer to "facilitate easy comparison and grouping" during the analysis (Fraenkel et al., 2019, p. 137).

The coding for this study was consistent (Fraenkel et al., 2019). The data was coded according to the following protocol to protect the identity of the individuals participating in the study. While coding and tabulating the data, the researcher was mindful of participants whose answers to the survey qualified them for exclusion criteria based on the pattern of their responses. To code the gender of the participants, the researcher used the letters F and M. The letter F was assigned to code the female category, and the letter M was used to code the male category. Transgender participants and those who chose not to disclose their gender were coded as TR and UND, respectively. The age of the participants was entered as the number written in the survey by the participants. However, the age ranges were coded for research purposes as follow: respondents ranging between the ages of 18 and 21 were coded as AGE1, respondents ranging between the ages of 22 and 24 were coded as AGE2, respondents ranging between the ages of 25 and 29 were coded as AGE3, respondents ranging between the ages of 30 and 34 were coded as AGE4, and respondents who were 35 years of age or older were assigned the code

AGE5. The researcher recognized that the age ranges presented for the study did not show a consistent pattern. The researcher utilized the given age ranges because it was the way the institution had chosen to range the ages in the instrument for data gathering purposes. The researcher recognized that the age ranges presented did not follow a consistent pattern, and it had the potential to distort the consistency when analyzing the data for the age variable.

The ethnicity of the participants was a nominal coding; therefore, a different combination of letters was assigned to each category: Hispanic or Latino participants were coded as HIS, Black or African-American respondents were coded as BLK, Native American or American Indian were coded as NAM, Asian participants were coded as ASI, Pacific Islander were coded as PFI, respondents who indicate other as their ethnicity were coded as OTH. The questions from the survey followed an ordinal coding; therefore, numbers 1 through 4 were used to code the answers: strongly agree was coded as 4, agree was coded as 3, disagree was coded as 2, and strongly disagree was coded as 1.

In order to keep the data safe, the researcher kept a personal login and password for the Qualtrics program in a locked and secured cabinet in the researcher's office. Once the data had been decoded, the researcher saved all data in a password-protected file on the cloud. A thumb drive was utilized to keep a backup copy of the work. The files were coded, and the thumb drive was locked in the researcher's office desk when not in use. No one, other than the researcher, had access to the researcher's password to access these files.

Data Analysis

This study generated inferential statistics, which allowed the researcher to make "inferences about a population based on findings from a sample" (Fraenkel et al., 2019, p. 214). Notably, in this study, data was collected via a survey. The data reviewed included student

responses from two academic semesters. The decision to gather data from two consecutive semesters was due to the limited number of Hispanic students enrolled, per semester, at the study site. Two data points were collected for each academic semester, survey responses collected during the second-class meeting of the academic semester and again at the end of the academic semester. At the end of the spring semester, suddenly, COVID-19 became a pandemic; students enrolled in the College Success course were asked to switch to an online instruction mode. Because of COVID-19, during the winter semester, students in the College Success course were instructed online only.

There were fewer first-year Hispanic participants in this study than their first-year White peers; therefore, after the data was collected, the researcher randomly selected a similar number of first-year White respondents to match the number of responses of the first-year Hispanic population. In order to randomize the selection of first-year White respondents, the computer random number organizer ‘www.randomizer’ was used. While coding and tabulating the data, the researcher remained mindful of participants whose answers to the survey might qualify them for the exclusion criteria based on the pattern of their responses. For example, participants who indicated a “5” on every question were excluded from the study.

Data was analyzed using the Statistical Package for the Social Sciences (SPSS) system. The significance level for the study was set at $p < 0.05$. This significance level was used to indicate that there is “less than a 5% chance that the results could have happened by chance alone” (Creighton, 2007, p. 72).

To analyze the data collected, some statistical tests were applied, including *T*-tests, and a Chi-squared test. Statistical tests will be significant “if the results are unlikely by chance to have occurred” (Creswell & Creswell, 2018, p. 251).

To address research questions one and two, whether or not there was a statistically significant difference in pre and post-grit scores for first-year Hispanic students and first-year White students, the researcher performed *t*-tests for non-independent samples or a paired samples *t*-test. This test is used to "determine whether two groups of scores are significantly different at a *selected* probability level" (Mills & Gay, 2019, p. 511)

To address research question three, a *t*-test for the different scores was utilized. Researchers utilize *t*-tests for independent means “to compare the mean scores of two different, or independent groups” (Fraenkel et al., 2019, p. 228). In this study, the researcher compared grit gain scores between first-year Hispanic students and first-year White students after participating in the College Success course.

Lastly, a Chi-squared was used to address research question four, to determine whether there was a statistically-significant difference between the retention of first-year Hispanic students and first-year White students participating in the College Success course at the study site. A Chi-squared test “is used to analyze data that are reported in categories [and] is based on a comparison between expected frequencies and actual, obtained frequencies” (Fraenkel et al., 2019, p. 232).

To analyze the four research questions created to guide this study, a series of *t*-tests were used, purposefully, to measure and calculate grit scores in lieu of a single repeated measures ANOVA. The researcher made this decision in order to reduce the overall changes of a false positive result by 5 percent.

Summary

“Despite years of retention efforts, graduation rates of certain ethnic populations remain alarming low. Of the Hispanic students who enroll in college, only 46% attain their bachelor’s

degree" (Oseguera et al., 2009, p. 23). "In order for universities to tailor treatments to the specific needs of their students, it is important to understand what other aspects of life, in addition to academics, may be causing this increase in depression, anxiety, and stress" (Beiter et al., 2014, p. 90). O'Neal et al. (2016) reported that Hispanic college students relied on grit to overcome challenges and obstacles to reach their goals. Vela et al. (2017) noted that grit increased college retention among minority students. Vela et al. (2017) reported the positive impact of grit on Mexican-American college students' persistence. Lastly, Buzzetto-Hollywood and Mitchell (2019) concluded from a longitudinal study the positive impact of grit on minority populations, noting that "there is a significant positive correlation between grit scores and both GPA and persistence to graduation" (p. 378) at minority-serving institutions.

In Chapter Three, the problem and the purpose of the study were presented, referring to the need to increase the retention rates for Hispanic college students, the largest and least educated minority group in the United States (Schmidt, 2003). The purpose of the study was to compare the relationship between grit and retention for first-year Hispanic students taking a transitional college course at a predominantly white institution with that of their White peers taking the same course and receiving the same approach during the same academic semester.

Chapter Four: Results

The purpose of this study was to compare the relationship between grit and retention of first-year Hispanic students taking a transitional college course at a predominantly White institution with that of their White peers. For this study, an Intermountain West institution was selected. The institution had a student enrollment of 24,004 students during the 2020 winter semester (January-April) (Institutional Data, 2020) and 20,559 students during the spring 2020 semester (April-July).

The first-time, degree-seeking freshmen retention rate for the 2019-2020 academic year at this institution was approximately 74.1%, and the graduation rate reported in 2020 for the percentage of those students obtaining a bachelor's degree was 53% (Institutional Data, 2020). According to College Factual (2020), this institution's undergraduates' student racial diversity was below the national average. During the 2019-2020 academic year, Hispanic students (n = 1,692) accounted for just 3.05% of the study institution's total student population (Institutional Data, 2020).

During the 2019- 2020 academic year, a total of 5,233 students participated in the College Success course. From the total number of students, 4,015 (76.7%) identified themselves as White, and 273 (5.2%) identified themselves as Hispanic (Institutional Data, 2020). During the 2020 Winter (January-April) academic semester, the College Success course enrolled 1,765 students, from which 779 identified themselves as female and 986 as males. It is interesting to note that 1,342 students identified themselves as White, and 119 as Hispanic (Institutional Data, 2020). During the 2020 Spring (April - July) academic semester, 560 White students participated in the College Success course, while only 39 Hispanic students enrolled in the course (Institutional Data, 2020).

The College Success course at the study site is a class offered to all first-year students. The College Success course is directed and facilitated by faculty appointed by university leaders with the primary goal of increasing student retention by developing a greater sense of grit in these first-year students. This course is viewed as an extension to the institution's freshman-orientation program that is provided at the beginning of each academic semester. Students taking this course enroll for one academic credit. This strategic course served as a specific retention strategy targeting students who had earned fewer than 20 college credits.

Evaluation of the College Success course will allow educational leaders to determine whether the university's interventions made a difference in semester-to-semester freshmen retention rates. The study results allow institutional decision-makers to determine whether or not the concept of grit, as emphasized and taught to students in the College Success course, supported semester-to-semester student retention for first-year Hispanic students at a level comparable to that of first-year White students. The study's impact was measured by a quantitative comparison of the relationship between grit and retention for first-year Hispanic students with that of their White peers at a predominantly White institution.

Data Analysis

This study was designed to address four research questions and determine the relationship between grit and retention for first-year Hispanic students taking a transitional college course at a predominantly white institution with that of their White peers taking the same course. Data were collected during winter 2020 (January-April) and spring 2020 (April – July) academic semesters at the study site.

Limitation

While coding the data for this study, the researcher noted that when the study institution modified the Short Grit Scale (Grit-S) (Duckworth & Quinn, 2009) survey to make the instrument domain-specific (Cormier et al., 2019), one of the questions, "I have a goal to graduate from [institution's name]" did not measure grit accurately. The researcher determined that including the institution's domain-specific question would distort the data and elected not to include responses to this question in the final data analysis.

For example, participants whose goal was to continue with their education, but to transfer to a different institution would get a negative grit score for this question instead of a positive grit score. The researcher also observed that the Grit-S survey's equivalent question, before the institution of study made it domain-specific, was intended to indicate a positive grit characteristic. It is important to note that the researcher recognized that including this data had the potential to reduce the internal validity of the instrument (Fraenkel et al., 2019) and chose to eliminate these responses because of the greater overall risk to the data analysis. Consequently, this study's analysis was based on a 7-question survey instead of the original 8-question survey proposed by the researcher in chapter three.

Descriptive Statistics

Students enrolled in the College Success course voluntarily participated in a survey designed to measure their grit. This survey was administered at the beginning and again at the conclusion of the course. The data collected encompassed student responses from two successive academic semesters. The decision to gather data from two consecutive semesters was due to the limited number of Hispanic students enrolled, per semester, at the study site. Two data points were collected for each academic semester; survey responses were collected during the second-

class meeting of the academic semester and again at the end of the academic semester during both terms.

There were 1,377 responses collected using a Qualtrics survey. The data were analyzed from participants who participated in this study and indicated their ethnicity (White or Hispanic). There were 763 qualified survey responses, including 655 participants who identified as White (85.8%), while 108 participants (14.2%) identified as Hispanic. Out of the 108 Hispanic responses, the researcher accurately matched the pre-surveys and post-surveys of 60 participants. Further, after reviewing this data, the researcher disqualified participants, through exclusion criteria, who had not answered all the questions or had marked the same high value (5) for all questions rendering their responses as questionable or invalid; a possible indicator that respondents misrepresented themselves or did not put forth the effort to answer the questions accurately. "Exclusion criteria will help minimize random error, selection bias, and confounding, thus improving the likelihood of finding an association, if there is one, between the exposures or intervention and the outcomes" (Velasco, 2010). This process resulted in 55 qualified Hispanic participants' responses (Hispanic n_h = 55).

First-year Hispanic participants in this study were fewer than their first-year White peers; therefore, after the data for the Hispanic participants was collected, the researcher randomly selected a similar number of respondents from the first-year White population pool to match the number of responses of the first-year Hispanic group. Out of the 655 qualified White participants, using www.randomizer.org, the researcher randomly selected 107 participants' responses. Further, after reviewing this data, the researcher disqualified participants who had not answered all the questions or had marked the same high value for all questions, a possible indicator that respondents misrepresented themselves or did not put forth the effort to answer the

questions accurately. The researcher also removed individuals whose names did not match a post-test; this process resulted in 55 qualified participants for the study (White n_w = 55).

The mean score and standard deviation for each of the survey questions on the pre-grit survey are illustrated in Table 4.1. The post-grit mean score and standard deviation for each of the survey questions are illustrated in Table 4.2.

Table 4.1

Pre-Grit Survey Means and Standard Deviations

Question Number	Mean	*Std. Deviation*	N
Q1	-	-	-
Q2	3.14	.723	110
Q3	2.56	.748	110
Q4	3.42	.514	110
Q5	2.38	.888	110
Q6	2.34	.901	110
Q7	3.51	.520	110
Q8	3.33	.637	110

Note: Mean scores are based on a 4-point Likert Scale.

Table 4.2

Post-Grit Survey Means and Standard Deviations

Question number	Mean	*Std. Deviation*	N
Q1	-	-	-
Q2	3.18	.680	110
Q3	2.44	.711	110
Q4	3.47	.570	110
Q5	2.30	.685	110
Q6	2.32	.801	110
Q7	3.55	.552	110
Q8	3.35	.584	110

Note: Mean scores were based on a 4-point Likert Scale.

When comparing the standard deviations of the survey questions between the Pre-Grit survey and the Post-Grit survey, the researcher observed that all the questions had a similar standard deviation pattern; all scores are within the one standard deviation (See Table 4.1 & Table 4.2), suggesting that the data collected maintained a consistent participant response. The researcher also observed that students did not significantly increase their grit scores at the culmination of the course, although Q2 and Q5 had a slightly mean increase. Question two reported positive grit, while question five reported negative grit.

To determine whether there was a statistically significant difference in pre and post-grit scores for first-year Hispanic students and first-year White students, the researcher performed a *t*-test for non-independent samples or a paired samples *t*-test. This test is used to "determine

whether two groups of scores are significantly different at a *selected* probability level" (Mills & Gay, 2019, p. 511). A probability (or alpha) value "is a percent stated in decimal form and refers to the likelihood of an event occurring" (Fraenkel et., 2019, p. 196). The alpha value for this statistical analysis was set at .05.

A non-independent samples *t*-test or paired samples *t*-test was conducted to compare pre-grit scores and post-grit scores of first-year Hispanic participants and first-year White participants. The paired samples *t*-test for the first-year Hispanic students had a *p*-value of .729, which was greater than the alpha value of .05 established for this analysis. Because the significance level was greater than the set alpha value, the researcher concluded that the means between pre and post-grit scores of first-year Hispanic students were not statistically significantly different.

Further, the paired samples *t*-test for first-year White students had a *p*-value of .958, which was greater than the alpha value of .05 established for this analysis. Because the significance level was greater than the set alpha value, the researcher concluded that the mean scores between pre and post grit scores of first-year White students were also not statistically significantly different. Therefore, the researcher concluded that when comparing mean scores of first-year students after they participated in a College Success course at the study site, there was not a significantly statistically difference between pre-scores and post-scores for Hispanics or Whites. Table 4.3 provides details from the statistical analysis performed.

Table 4.3

Pre and Post Statistical Analysis

Group	N	Mean*	Std. Deviation	*p*-value
Hispanic	55	.01558	.33183	.729
White	55	.00260	.36003	.958

Note: *This is the mean value between pre and post grit scores for each group.

Reliability

To calculate the reliability of the data, a Cronbach's alpha analysis was applied. In this analysis, the researcher was looking for the "consistency of repeatability of [this] instrument" (Creswell & Creswell, 2018, p. 154). The internal consistency determines "the degree to which sets of items on an instrument behave the same way" (Creswell & Creswell, 2018, p. 154). For purposes of this research, a value of .70 or above was acceptable for reliability. When analyzing Cronbach's alpha values, the closer the coefficient value is to 1, the more reliable the instrument is considered to be (Fraenkel et al., 2019).

For the Pre-Grit survey instrument, the Case Processing Summary or valid data was 110 (N = 110), while the missing data was zero. These results indicated that all the data were processed. Further, from the output of Reliability Statistics, the data obtained a Cronbach's Alpha value of .77 which was greater than .70; thus, the researcher concluded that this instrument was reliable (see Table 4.4).

For the Post-Grit survey instrument, the Case Processing Summary or valid data was 110 (N = 110), while the missing data was zero. These results indicated that all the data were processed. Further, from the output of Reliability Statistics, the instrument obtained a Cronbach's Alpha value of .70 which is equal to .70 (see Table 4.5). Thus, the researcher concluded that this

instrument was also reliable because it met the .70 value determined for this study (Fraenkel et al., 2019).

Table 4.4

Cronbach's Alpha Coefficients for the Grit Survey

	Participants - *N*	Pre-Grit α	Post-Grit α
Grit Survey	110	.77	.70

Note: N: Combined Hispanic and White participants, Pre-Grit α is the value given for the pre-grit survey data, and Post-Grit α is the value given for the post-grit survey participants' data.

Creswell and Creswell (2018) suggested that to validate the internal consistency of an instrument, it is beneficial to conduct a second reliability evaluation to find out "whether the scale is reasonably stable over time with repeated administration" (p. 154). This measurement is known as test-retest reliability. The researcher conducted a test-retest stability analysis using a Pearson *r* correlation. The correlation coefficient ($r = .693$) showed a statistically significant positive correlation between the Pre-Grit survey and the Post-Grit survey responses (see Table 4.5). This analysis proposed that both instruments' responses were satisfactorily balanced, supporting the analysis results for the Cronbach's alpha coefficient (see Table 4.4). Mills and Gay (2019) suggested that, "Correlation coefficients in the range of .60 and above are usually sufficient to indicate acceptable reliability" (p. 183), which suggested reliability for the Pre-Grit and Post-Grit survey scores data (See Table 4.5). The effect size for this study ($d = 0.256$) was found to exceed Cohen’s convention greater than .20, indicating a small effect size.

Table 4.5

Pre-Grit and Post-Grit Test-Retest Data Stability Measures

	N	Mean	Std. Deviation	Pre-Grit scores *r*
Pre-Grit scores	110	2.9532	.46808	1
Post-Grit scores	110	2.9442	.39330	.693**

Note: ** Correlation is significant at the 0.01 level (2-tailed); N: Combined Hispanic and White participants.

Difference in Pre-Test Grit Scores

The first research question in this study was: *Is there a statistically significant difference in the grit pre-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site?* To answer the first research question, data from first-year Hispanic students and first-year White students were tabulated into an SPSS document.

To analyze grit pre-test scores and answer the first research question, IBM SPSS 27 statistical software was utilized to perform a *t*-test for independent mean scores. This test was used to "compare the mean scores of two different, or independent groups" (Fraenkel et al., 2019, p. 228). Further, a Levene's test was employed to assess the equality of variances to ensure homogeneity. A probability (or alpha) value "is a percent stated in decimal form and refers to the likelihood of an event occurring" (Fraenkel et al., 2019, p. 196). The alpha value for this statistical analysis was set at .05. The p-value for Levene's test .765, was greater than alpha, .05; therefore, not statistically significant. This value sustained the presumption that the groupings for this study were of equal variances.

In the first analysis, an independent samples *t*-test was conducted to compare the mean scores of grit pre-tests between first-year Hispanic students and first-year White students. The alpha level for this comparison was set at .05. The *p*-value for the independent samples *t*-test, .182, was greater than the alpha value of .05 established for this analysis. Because the significance level was greater than the set alpha value, the researcher failed to reject the null hypothesis; therefore, the researcher determined that when comparing first-year Hispanic students' pre-test scores with first-year White students' pre-test scores of individuals participating in a College Success course, there was no significant statistical difference in the mean scores between the groups. Table 4.6 provides details from the statistical analysis performed.

Table 4.6

Pre-Grit Scores Statistical Analysis

Ethnicity	*N*	*Mean*	Std. Dev	Std. Error Mean	Sig. Value
Hispanic	55	2.8935	.48967	.06603	.182
White	55	3.0130	.44183	.05958	

Difference in Grit Post-Test Scores

The second research question for this study was: *Is there a statistically significant difference in the grit post-test scores between first-year Hispanic students and first-year White students participating in a College Success course at the study site?*

To analyze grit post-test scores and answer the second question, IBM SPSS 27 statistical software was utilized to perform a *t*-test for independent means.

In the second analysis, an independent samples *t*-test was conducted to compare the mean scores of grit post-tests between first-year Hispanic students and first-year White students. The alpha level for this comparison was set at .05. The *p*-value for the independent samples *t*-test, .077, was greater than the alpha value of .05 established for this analysis. Because the

significance level is greater than the set value, the researcher failed to reject the null hypothesis; therefore, the researcher determined that when comparing first-year Hispanic students' post-test scores with first-year White students' post-test scores participating in a College Success course at the study site, there is no significant statistical difference in the mean scores between the groups. The p-value for Levene's test .968 was greater than alpha, .05, and not statistically significant. This sustained the presumption that the groupings for this study were of equal variances. Table 4.7 provides details from the statistical analysis performed.

Table 4.7

Post-Grit Scores Statistical Analysis

Ethnicity	*N*	*Mean*	Std. Dev	Std. Error Mean	Sig. Value
Hispanic	55	2.8779	.38531	.05196	.077
White	55	3.0104	.39350	.05306	

Difference in Grit Gain Scores

The third research question: *Is there a statistically significant difference in grit gain scores between first-year Hispanic students and first-year White students after participation in a College Success course at the study site?* To analyze grit gain scores and answer the third question, IBM SPSS 27 statistical software was utilized to perform a *t*-test. In order to obtain the grit gain scores, the researcher found the difference between grit pre-test scores and grit post-test scores for each participant and between the two groups.

A Levene's test ensured the homogeneity of the groups. The *p*-value for Levene's test .687 was greater than alpha .05 and, therefore, not statistically significant. This validated the assumption that the groups were of equal variances.

In the third analysis, a *t*-test was conducted to compare the means of grit gain scores between first-year Hispanic students and first-year White students after they participated in a

College Success course at the study site. The alpha level for this comparison was set at .05. The *p*-value for the independent samples *t*-test, .844, was greater than the alpha value of .05 established for this analysis. Because the significance level was greater than the set value, the researcher failed to reject the null hypothesis; therefore, the researcher concluded that when comparing first-year Hispanic students' grit gain scores with first-year White students' grit gain scores, after they participated in a College Success course at the site of study, there was no significant statistical difference in the mean scores between the groups. Table 4.8 provides details from the statistical analysis performed.

Table 4.8

Grit Gain Scores Statistical Analysis

Ethnicity	*N*	*Mean*	Std. Dev	Std. Error Mean	Sig. Value
Hispanic	55	-.0156	.33183	.04474	.844
White	55	-.0026	.36003	.04855	

Difference of Retention for Students with Higher Grit Scores

The fourth research question: *Is there a statistically significance difference in the distribution of retained/non-retained students, in the subsequent semester, between first-year Hispanic students and first-year White students who reported higher grit scores at the culmination of a College Success course?* The researcher identified and coded participants who reported higher grit scores after completing the College Success course to address this question. For this question, only participants who obtained a score of three or above on the post-grit survey were selected for this analysis. From the 55 Hispanic participants selected for this study, 23 participants ($N_h = 23$) scored three or higher in the post-grit survey, while from the 55 White participants selected for this study, 27 individuals ($N_w = 27$) scored three or higher in the post-

grit survey. The post-grit scores were based on a 4-point Likert scale. Research question four was analyzed using the IBM SPSS 27 statistical software.

To analyze whether there was a statistically significance difference in the distribution of retained and non-retained students between Hispanics and Whites, a Chi-Square test was conducted. Mills and Gay (2019) noted that this analysis "is computed by comparing the frequencies of each variable observed in a study to the expected frequencies" (p. 541).

In this analysis, participants who successfully accomplished a College Success course, scored three or higher in the post-grit survey, and indicated their ethnicity to be Hispanic were compared to see if there was a statistically significant difference in retention rates of White participants who successfully accomplished a College Success course and had scored three or higher in the post-grit survey. The alpha level for this comparison was set at .05. In this analysis, variables for analyzing retention included ethnicity and higher scores in the post-grit survey. The alpha level for this analysis was set at .05. The Chi-Square *p*-value, .053, was greater than the alpha value of .05 established for this analysis. Because the significance level was greater than the set value, the researcher failed to reject the null hypothesis. The researcher concluded that when comparing the distribution of retained/non-retained students in the subsequent semester, there was not a significant statistical difference between retained Hispanic students and retained White students. Table 4.9 provides details from the statistical analysis performed.

Table 4.9

Retention for Participants with Higher Grit Scores

	Value	*df*	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.747[a]	1	.053
N of Valid cases	50		

Note: The *df* indicates the degrees of freedom.

Table 4.10 illustrates the retention of participants for both groups. It should be noted that all the participants represented in this table were selected because they scored a three or higher on their post-grit survey after completing a College Success course at the study site.

Table 4.10

Percentages of Retained and Non-retained Students

	$N_h = 23$	$N_w = 27$
Retained	20	27
Non-retained	3	0
Total in Group	23	27
Percent of Retained	87.0%	100%
Percent of Non-retained	13.0%	0.0%

Summary

This analysis was conducted to determine if the relationship between grit and retention for first-year Hispanic students taking a transitional college course at a predominantly White institution with that of their White peers had a statistically significant difference. From the analytical results for this study's research questions, the *p*-values obtained were greater than the .05 value established to show statistical significance in the results (Fraenkel et al., 2019). Because the *p*-values obtained from the analyses were greater than .05, the null hypotheses failed to be rejected by the researcher for the four research questions created to guide this study.

Because the false-negative results from this study could deter future studies from continuing to research in this area, it is important to mention that every effort was made to provide the greatest chance for a positive result to be found. Further analysis of grit's impact on student retention, including larger sample size, a different location, or involving other minority groups, is encouraged.

Chapter Five: Summary and Conclusions

The rapid growth of Hispanics in the United States cannot be "ignored" (Cerna et al., 2009, p. 131). Demographic studies estimated that this minority group will eventually constitute one-fourth of the entire U.S. population (Llagas & Snyder, 2003). Although institutions have set aside resources and implemented intervention strategies to help the Hispanic population succeed in U.S. colleges, students that fit this category are still underrepresented and underserved at a collegiate level (Schmidt, 2003).

Hispanics comprise the largest minority group in the United States (Cantrell & Brown-Welty, 2014; U.S. Census Bureau, 2018a). According to the National Center for Education Statistics (2019), when compared to Whites, Hispanics lag behind their White counterparts by 37 percent for undergraduate student enrollment at degree-granting institutions. The Hispanic population's educational progress is a genuine concern for higher education institutional leaders (Hurford et al., 2017). Additionally, Hispanics lag behind White students in most post-secondary attainment measures. "In 1992, Latinos were 23 percentage points behind Whites" (Carnevale & Fasules, 2017, p. 26) in degree attainment, and by 2016, this gap had extended to 29 percent. (Carnevale & Fasules, 2017).

Lower college enrollment and high attrition rates for Hispanics mean that they miss out on opportunities provided by obtaining a college degree, limiting their lifetime earning potential (College Board, 2017), and missing the opportunity to realize a healthier lifestyle (Fuller, 2010). It is recommended that universities be concerned with transforming their institution by making their campuses culturally and academically aware of the Hispanic population's particular needs and strengths (Garcia, 2012).

Educational leaders continue to discuss different ways to improve graduation rates and get more Americans “off the sidelines and into the workforce. [They] are seeking to increase the country’s workforce participation rates by connecting workers with good-paying jobs” (The White House, 2019, para. 2). Hispanic students need to have access to these opportunities just as their White peers do (Cerezo & McWhirter, 2012). Despite the obstacles Hispanic students face while pursuing a post-secondary degree, most Hispanic students start their education journey with the determination, enthusiasm, and desire to obtain a degree and join the workforce (Fry, 2004).

This study was designed to compare the relationship between grit and retention for first-year Hispanic students taking a transitional college course with that of their White peers at a predominantly White intermountain-west institution. This study addressed four research questions. Data were collected during the winter 2020 (January – April) and spring 2020 (April – July) academic semesters. It is important to note that grit scores gathered at the culminating of the winter 2020 semester and during the spring 2020 semester might have been affected by the stresses of the global pandemic and the sudden change of instruction mode in response to COVID-19 safety protocols.

The College Success course is offered to all first-year students and is directed and facilitated by faculty appointed by university leaders to increase student retention. One of the College Success course tenets is to develop a greater sense of resilience or grit in these first-year students. This one-credit course is an extension of the institution’s freshman-orientation program provided at the beginning of each academic semester and serves as a part of an overall retention strategy targeting students who have earned fewer than 20 college credits.

The results of this study will contribute to educational leaders' understanding of the institution's first-year intervention program by informing these leaders of the impact of the College Success course on Hispanic student retention. The study results will allow institutional decision-makers to determine whether the concept of grit, as emphasized and taught to students in the College Success course, supported semester-to-semester student retention for first-year Hispanic students at a level comparable to that of first-year White students. The College Success course's impact was determined by a quantitative comparison of the grit developed and the retention for first-year Hispanic students with that of their White peers.

Students enrolled in the College Success course voluntarily participated in this study to measure their level of grit. A valid and reliable survey was administered to participants at the beginning and again at the conclusion of the course. The data collected included student responses from two successive academic semesters. The decision to gather data from two consecutive semesters was made due to the limited number of Hispanic students enrolled each semester in the College Success course. Two data points were collected during each academic semester, once during the second-class meeting and again at the end of the academic semester.

Key Findings

This study examined the relationship between grit and retention for first-year Hispanic students taking a transitional college course with that of their White peers at a predominantly White institution. The results of this study are summarized in the following section.

For the first research question, a difference in pre-test grit scores between first-year Hispanic students and first-year White students was measured using a *t*-test for independent means to "compare the mean scores of two different, or independent groups" (Fraenkel et al., 2019, p. 228). Results for this research question suggested that first-year Hispanic and White

students enrolled in the College Success course began the course with similar levels of grit. Similar grit may suggest that both first-year groups had a similar level of interest and "purpose" (Duckworth, 2016, p. 143) to continue their education at the start of the course.

For the second research question, a difference in post-test grit scores between first-year Hispanic students and first-year White students was also measured using a *t*-test for independent means. Findings for both groups showed that no statistically significant difference existed between the two study groups.

The data analysis for this question suggested that first-year students engaged in this study did not increase their grit as a consequence of the course. However, another hypothesis could be that because students were taught the components of grit and were able to understand this trait, a greater understanding of grit allowed them to accurately measure their grit in contrast to their pre-grit survey, where students who were somewhat confused as to what grit was, scored themselves higher than what their actual grit level should have been. Further, it is important to keep in mind that the population sample's size and randomness might not have been "perfectly representative of the populations" (Fraenkel et al., 2019, p. 102).

For the third research question, a difference in grit gain scores between first-year Hispanic students and first-year White students who had successfully completed the College Success course was measured using a *t*-test for independent means. To analyze this question, the researcher found the difference between pre-grit scores and post-grit scores for each participant prior to the analysis. Findings for both groups indicated that no statistical difference existed between the two populations' grit-gained scores.

The data analyzed in this question suggested that both groups' average grit shift was very similar. The mean average for both groups suggested a slight decrease in grit for both

populations. This decrease might suggest that the practices applied to increase grit among these students was not effective. Nevertheless, reviewers are urged to keep in mind that Duckworth (2016) suggested that grit grows with age. It would be advantageous to analyze the data collected and determine the average grit for first-year students in the College Success course according to their ages. However, another perspective for the results from this question is that these results are congruent with and supportive of the literature reviewed in Chapter Two; Hispanic students, nationwide, continue to fall behind in retention rates compared to their White peers despite their determination to continue with their education (Hurford et al., 2017).

For the fourth research question, a comparison of the retention numbers of participants who had obtained a score of three or higher on their post-grit survey was measured. The researcher defined ‘retention’ as the participants’ continual enrollment at the study site in the semester after participating in the College Success course. The researcher used a statistical software package to perform a Chi-Square to answer this question. The researcher identified all participants who had scored three or higher on the post-grit survey to analyze this question for both groups of students. The researcher subsequently reviewed institutional records to identify each individual’s enrollment status in the semester after completing the College Success course. After identifying students who had enrolled in classes the subsequent semester, and those who did not, the researcher created lists of first-year Hispanic students who enrolled the subsequent semester, first-year Hispanic students who discontinued enrollment, first-year White students who enrolled the subsequent semester, and first-year White students who had discontinued their enrollment at the study site.

Comparing the two groups of students indicated that there was not a statistically significant difference in the distribution of retained/non-retained students between first-year

Hispanic students and first-year White students who reported higher grit scores at the culmination of the College Success course in the subsequent semester.

This research question is unique because the researcher only selected students with a grit score of three or higher on their post-grit survey. Findings for this question indicated that all first-year White students (n = 27) enrolled in the next successive semester. On the other hand, three of the 23 first-year Hispanic students with grit scores of three or higher did not continue their education at the study site. It is important to mention that one of the three first-year Hispanic students had been granted an enrollment deferment by the institution because of a religious commitment. The researcher did not have access to the reasons why the other two Hispanic students did not return to the institution the following semester. It is essential to consider that the global pandemic might have played a role in their decision. A qualitative approach would help clarify the reasons why these two students did not return to the institution to continue with their education.

It is important to note that the number of first-year Hispanic students who scored three or higher in the post-grit survey was 15 % lower than their first-year White peers. Perhaps, the sample size of this study was not large enough; however, these findings are reinforced by the literature suggesting that Hispanic students continue to fall behind in retention nationwide in comparison to their White peers (Carnevale & Fasules, 2017; Lopez et al., 2018; Oseguera et al., 2009; Pew Research Center, 2017; Schmidt, 2003).

Conclusions

This study's findings suggested no statistically significant difference in Hispanic or White participants' grit scores at the beginning or the end of a College Success course. Further, this study's analysis indicated no statistically significant difference in the retention rates for

students who scored three or higher in the post-grit survey; based on their ethnicity. First-year White students were retained at a greater rate than first-year Hispanic students. It is important to understand that because of the relatively small number of students included in this statistical analysis, the suggestion that first-year White students retained at a greater rate is limited.

Limitations

There are significant limitation aspects to be reviewed before attempting to generalize the conclusions from this study to other universities or similar populations. The first weakness of this study was the ethnic makeup of the site of study. Moreover, the study site is a private, religious institution with specific enrollment requirements and qualifications; thus, this study's findings are not generalizable to most institutions. Another observed limitation to this analysis was that this research study was organized over two consecutive academic semesters. Consequently, there was the potential that this short-time span would not accurately project the long-term retention of the students included in this study. Further, while the data collected furnished helpful findings, it primarily provided a basis for further research of the study site's Hispanic population.

From a quantitative perspective, care should be exercised when making program-wide generalizations from the results to a larger population because of the small sample size of the study. Even though the data collected represented students attending the study site, the institutional uniqueness of the student population limits generalizability to other religious institutions. Further, although the grit survey was administered to students through a Qualtrics link, participants were notified of the survey option and its completion under the institution's course management system. Thus, the possibility existed that participants may have elected to answer the questions that supported the course outcomes or portrayed a confident opinion of the

course instead of the participant's actual grit values. This maybe, especially true if participants received help or financial aid from the institution.

It is important to note that the retention rates for students attending the study institution were also influenced by several factors, some unique to the study site. A 2018 survey conducted by the institution gathered a list of critical reasons for student attrition. Former students identified: personal reasons (38%), transfer to another institution (15%), financial issues (14%), personal issues with the institution (13%), and honor code requirements (8%) as reasons for leaving the institution (Brigham Young University Idaho, 2018).

Recommendations

This study's findings suggested no statistically significant difference in the participants' grit scores, Hispanic or White, at the beginning or the end of the College Success course. Further, this study's analysis indicated no statistically significant difference in the retention rates for students who scored three or higher in the post-grit survey based on their ethnicity, even when first-year White students were retained at a greater rate than their first-year Hispanic counterparts.

Although this study's findings showed that the College Success course did not statistically improve the grit level for students participating, there is a possibility that the course reinforced students' resolve and determination to persist with their education. Leaders who directly influence the curriculum and decide on course activities that specifically support the teaching of grit principles are encouraged to evaluate the current approach and consider changes that may boost the course's purpose.

Recommendations for Future Research

An outcome of this research is recommended that future researchers utilize a different research design to obtain a more "specific direction for procedures" (Creswell & Creswell, 2018, p. 11). Another study may include analyzing demographic data such as gender, age, marital status, immigration status, and other variables specific to the institution's population, including whether or not the participants have served a religious mission or work another job while going to school. Taking these variables into consideration could reveal additional details related to the participant's level of grit. Further, a more extensive and more prolonged collection of data involving a mixed-methods approach could produce a more accurate picture of the challenges faced by Hispanic and other minority students and suggest strategies for addressing these challenges more wholly and directly.

This research was conducted using quantitative methodologies. Taking a qualitative approach would allow researchers to compare and analyze specific personal experiences that contribute to the participants' grit level. It would be useful for researchers to engage in open-ended interviewing to gain a more complete perspective of participants' experiences (Creswell & Creswell, 2018). This approach would allow researchers to gain a more complete perspective of a group of first-year Hispanic students to determine "how they have personally" (Creswell & Creswell, 2018, p. 17) dealt with challenges in their education and have continued to progress toward their academic goals. A qualitative approach would allow first-year Hispanic students to describe, from their point of view, those experiences that have helped them to develop or to decrease their passion and perseverance in overcoming personal challenges (Duckworth, 2016).

Recommendations from The Literature Review

The study site has invested in creating different strategies to increase freshman retention. Nevertheless, it is suggested that the institution set aside resources to specifically address first-year Hispanic students' needs to increase their retention. Oseguera et al. (2009) suggested that when working to improve the retention rates for Hispanic students, institutions would do well to know that Hispanic students possess unique psychosocial experiences and challenges and that there are specific programmatic components that can increase retention for this group of students. It is suggested that this institution identify ways to recruit and retain more Hispanic students. Creating unique programs, events, or tangible acts that show that the institution recognizes and honors the Hispanic culture and ensures that Hispanic students feel incorporated into the college environment (Oseguera et al., 2009) would be an important step.

In order to improve college persistence and achievement, Seidman (2012) recommended that institutions invest in the early assessment of first-year Hispanic students' skills when entering the school. Seidman (2012) suggested that those interventions could begin even before the students arrive on campus and remain in place until students show tangible evidence that they do not need them anymore.

Vela et al. (2018) have reported the positive impact of hope on grit among Hispanic college students. Vela et al. (2018) suggested that school counselors and advisors should encourage Hispanic students to increase their hope, which increases the level of passion and perseverance (Duckworth, 2016) to pursue a goal. Furthermore, Vela et al. (2015) reported that hope was the strongest predictor of psychological grit among Hispanic college students. Vela et al. (2015) reported that their findings suggest "that as the amount of hope increase[d], the level of psychological grit among… [Hispanic] college students increased" (p. 296). Faculty members

tasked with developing and revising the College Success course curriculum and related activities could evaluate and consider ways to inspire greater hope among all students, particularly among Hispanic students.

O'Neal et al. (2018) reported the positive effects of grit on Hispanic college students and how this population of students relied on grit to overcome challenges and opposition, including academic persistence, to reach their goals. Further, O'Neal et al. (2018) reported that, "Grit was spurred by participants' desires to resist stereotypes, overcome challenges, and make their families proud, especially because they would be the first in their families to graduate from college" (p. 460). Furthermore, O'Neal et al. (2018) discovered that for Hispanic students, "grit…[was] a fuel moving participants toward their long-term goals" (p. 461). The College Success course could encourage Hispanic students to participate in out-of-class dialogues, supervised by a Hispanic faculty member, to freely address academic challenges with each other and listen to members of the Hispanic community who have overcome similar challenges through increased hope and greater grit.

Finally, Piña-Watson et al. (2015) examined the effects of grit and culture among Mexican-American adolescents. Piña-Watson et al. (2015) concluded that grit, along with hope and strong family ties, positively predicted academic motivation among Mexican-American adolescents. Vela et al. (2017) reported that grit increased college retention among minority students. Vela et al. (2017) reported the positive impact of grit on Mexican-American college students. Leaders overseeing the College Success course's progress may benefit from creating a task force to research diverse activities or assignments that remind students of their family members' successes in overcoming challenges.

In conclusion, this study was focused on the development of grit in the College Success

course and the influence that greater levels of grit had on the retention of first-year Hispanic students. It is important to remember that the College Success course prepares students with life and academic-success skills that promote career exploration and provide experiences that will help them succeed throughout their post-secondary experience. The College Success course, besides teaching grit principles, also teaches other fundamental principles to help first-year students succeed in college. It would be advantageous for further researchers to analyze the other aspects taught in this course and identify how these components impact student retention.

It is crucial to keep in mind that this study was accomplished during a global pandemic; therefore, the results and conclusions from this study reasonably might had been greatly impacted by such variable. Further studies on the impact of COVID-19 on grit scores and grit growth during the winter and spring 2020 semesters is recommended.

Finally, it is important to remember that the researcher's list of recommendations is based primarily on the literature review presented in this study and derives largely from an ethnic perspective. The researcher recognizes the efforts the institution has implemented to support student success and retention. These efforts are based on foundational religious doctrines that are part of the institution's culture and are valued and recognized by the researcher as divinely appointed. This study was based mainly on the component of grit (Duckworth, 2016), one of the many research-based practices the institution employs to support, retain, and enhance first-year students' lives and educational experiences.

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Appendix A

Short Grit Scale

Directions for taking the Grit Scale: Here are a number of statements that may or may not apply to you. For the most accurate score, when responding, think of how you compare to most people -- not just the people you know well, but most people in the world. There are no right or wrong answers, so just answer honestly!

1. New ideas and projects sometimes distract me from previous ones.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

2. Setbacks don't discourage me.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

3. I have been obsessed with a certain idea or project for a short time but later lost interest.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

4. I am a hard worker.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

5. I often set a goal but later choose to pursue a different one.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

6. I have difficulty maintaining my focus on projects that take more than a few months to complete.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

7. I finish whatever I begin.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

8. I am diligent.
    a. Very much like me
    b. Mostly like me
    c. Somewhat like me
    d. Not much like me
    e. Not like me at all

Scoring:

For questions 2, 4, 7 and 8 assign the following points:

5 = Very much like me
4 = Mostly like me
3 = Somewhat like me
2 = Not much like me
1 = Not like me at all

For questions 1, 3, 5 and 6 assign the following points:

1 = Very much like me
2 = Mostly like me
3 = Somewhat like me
4 = Not much like me
5 = Not like me at all

Add up all the points and divide by 8. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty).

Appendix B
College Success Survey

1. I have a goal to graduate from [institution's name]

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

2. Sometimes I become distracted from successfully completing school projects and assignments

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

3. I finish whatever school projects and assignments I begin

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

4. Failures in school do not discourage me. I do not give up easily

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

5. I am a hard worker in school

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

6. I have been really interested in a certain idea or project at school for a short time, but later lost interest

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree

- ☐ Strongly disagree

7. I am diligent in my efforts in school. I never give up

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

8. I have difficulty maintaining focus on school projects that take more than a few months to complete

   - ☐ Strongly agree
   - ☐ Agree
   - ☐ Disagree
   - ☐ Strongly disagree

Appendix C

Purpose of the Study:

The purpose of this survey is to understand new students and their needs at BYU-Idaho. You are free to agree to take the survey or not, by completing the survey you will provide some useful information to help inform the effectiveness of our course.

By agreeing to complete this survey, you also agree to authorize the researcher, Sandro Benitez, to access your GPA and your attendance information.

If you have any questions, you can contact

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There are no known risks to completing this survey other than fatigue or boredom.

If you decide not to complete the survey, you will not be penalized. You will still receive in-class credit just as if you had completed the survey.

This survey consists of about 60-85 questions (the length depends upon answers to some questions) and will take between 10-15 minutes to complete.