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Engagement Factors Impacting First-Year Persistence of Hispanic and Non-Hispanic Students in Idaho Community Colleges

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Abstract

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by

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MPA, Boise State University, 1993

BA, Boise State University, 1990

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
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Abstract

Although minority students are enrolling in community colleges at increasing rates, these students also leave at higher rates than their non-minority counterparts. The purpose of this quantitative study was to understand the relationship between selected antecedents of educational engagement and student persistence and to examine how persistence varied for first-year Hispanic and non-Hispanic students in Idaho community colleges. Drawing from Kahu's holistic approach, which conceptualizes students' engagement as arising from an interrelationship between institutional and student characteristics, this study surveyed 132 first-semester Idaho community college students. A MANOVA was used to identify the relationship between variables representing aspects of student engagement and persistence. There were significant differences in variables within 2 antecedents, structural-student (maternal education level) and psychosocial-relationship (quality of peer relationships). Further, the study examined the relationship differences between Hispanic and non-Hispanic students, suggesting significant differences within the antecedent of structural-student. Higher levels of paternal education and family income were significant in Hispanic student persistence. This research is expected to contribute to empirical knowledge of student persistence and educational engagement; it benefits the academic community as a whole in the development of best practices and intervention programs. Enhanced persistence has positive social and economic benefits for students who complete their education; for the institution, it yields diversity; and for society as a whole, it yields educated citizens from diverse backgrounds.

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Chapter 1: Introduction to the Study

The purpose of this quantitative study was to understand how educational engagement and selected antecedents of engagement vary between first-year Hispanic and non-Hispanic students who persist in or leave three selected community colleges in Idaho. Using a holistic approach that examined selected variables of engagement, this research sought to explain educational persistence as a function of these variables and to investigate how persistence differed between Hispanic first-year students and their non-Hispanic counterparts. The use of a holistic approach allows student persistence and its relationship to the process of educational engagement to be viewed as the multifaceted phenomenon that it is, rather than from just a one-sided approach. A difference in persistence clearly exists, as will be discussed in depth in this chapter, and this difference within Idaho community colleges and Idaho as a whole is of increasing concern. This concern is due to a variety of reasons, including the rapid growth of people of Hispanic ethnicity, and the already low rate of Idaho high school students who choose to go on to postsecondary education and/or training.

While there are various hypotheses on the variability of first-year persistence between these two groups of first-year students, this study was based on the conjecture that Hispanic first-year students are not participating in activities that community college administrators think are going to engage students such as participating in school sponsored clubs, or that these students are participating but with negative results. Recognizing that persistence is a function or result of engagement, this research focused on engagement from the impact of the community college on persistence and the student

to determine what factors are significant in the different rates of persistence between Hispanic and non-Hispanic students.

In the first part of this chapter, I provide a brief background on student engagement as well as on the gap in the knowledge this study will address. Next, I present the problem statement and provide evidence that further study of the relationship of student engagement to persistence for Hispanic students is important and topical. Included next are the purpose of the study, the research questions and hypotheses, and the theoretical framework. Finally, I describe the nature of the study and provide corresponding definitions, assumptions, scope and delimitations, limitations, and significance.

Background

Research on student engagement, while varied in its application, is based on two fundamental components: what the student does and what the educational institution does (Wolf-Wendel, Ward, & Kinzie, 2009) or, as defined by Kuh (2007), the linking of student behavior and effective educational practices. Despite this linkage, the predominance of research on minority persistence has focused on singular factors, including the role of faculty members and student validation (Barnett, 2010; Rendon, 2002), social validation (Nora, Barlow, & Crisp, 2005), perceptions of the campus racial climate (Yosso et al, 2009), and academic stress (Bean, 2005). As a result, a gap exists regarding studying persistence in a manner that explicitly measures the effectiveness of educational policies and practices on the impact of student behavior and influences, and how these factors differ between Hispanic and non-Hispanic first-year students.

Furthermore, though research abounds regarding educational engagement factors that contribute to the lower persistence rate of Hispanic students, it is important to differentiate between those factors that could be mitigated and those that cannot be mitigated. Examining the effect of selected variables on educational engagement and how these variables impact persistence—and then further weighing the impact of each—allows a thorough understanding of first-year Hispanic students’ lower rates of persistence as compared to their non-Hispanic counterparts. Understanding these factors as they relate to first-year Hispanic students is beneficial to community colleges as well as the 4-year universities in Idaho.

Idaho is largely homogeneous in terms of race and ethnicity, primarily consisting of non-Hispanics. In the 2017 population estimate by the U.S. Census, Whites alone, not of Hispanic ethnicity, accounted for 82% of the population in the state compared to 60.7% of the population for the United States as a whole. However, since the early 1990s, the Hispanic population in Idaho has nearly doubled from 5.2% to 12% (U.S. Census Bureau, 1990; U.S. Census Bureau, n.d.). Since there is a clear difference in the educational attainment of this population in Idaho compared to non-Hispanics, and this population is growing, it is important from a social change perspective to understand the origins and circumstances of disparities between the two groups. Table 1 illustrates the difference as it exists in Idaho as well as the comparison of Idaho to the United States as a whole. It is interesting to note that while the rate of “high school graduate or equivalent” for Hispanics in Idaho is comparable to the national average, the rate of those with Bachelor’s degrees is nearly 4% lower. This research provides an opportunity to

better understand factors contributing to these lower educational attainment levels among Hispanics and to identify methods and options for increased rates of college completion for all students.

Table 1

Educational Attainment (Population 25 Years & Older): US and Idaho

	United States			Idaho		
	Total Population	Non-Hispanic	Hispanic (of any race)	Total Population	Non-Hispanic	Hispanic (of any race)
Total Population	316,515,021	262,282,816	54,232,205	1,616,547	1,425,233	191,314
Population 25 years & older	216,553,817	184,791,945	31,761,872	1,000,748	926,199	81,400
Less than HS diploma	7%	6%	14%	6%	5%	15%
HS graduate (or equivalent)	28%	28%	28%	27%	27%	28%
Some college, no degree	21%	21%	18%	27%	28%	20%
Associate's degree	8%	9%	6%	10%	10%	5%
Bachelor's degree	19%	21%	10%	18%	19%	6%
Graduate or Professional degree	12%	13%	5%	8%	9%	2%

Source: 2015 U.S. Census

Problem Statement

Although community colleges are becoming more ethnically diverse and minority students are attending college at increasing rates, these students also are leaving at significantly higher rates compared to their non-minority counterparts (Fry & Lopez,

2012). In particular, Hispanic students, who comprise the largest ethnic minority group on college campuses across the United States, have a higher probability of not completing post-secondary education compared to non-Hispanic students (Fry & Lopez, 2012). As noted previously; this gap is even greater in Idaho. Many factors may contribute to this problem, some which can be attributed to the student themselves, the educational organizations, or both. Through the demonstration of persistence as a function of engagement, this study is expected to contribute to the body of higher education knowledge by examining multiple factors that contribute to low persistence rates of Hispanic students.

Purpose

The purpose of this quantitative study was to understand the relationship between (a) selected antecedents of educational engagement and student persistence and (b) how engagement and persistence vary for first-year Hispanic and non-Hispanic students in community colleges in Idaho. Quantitative survey data were used to examine the relationship between student persistence, Hispanic ethnicity (Hispanic vs. Non-Hispanic) and the latent construct (engagement), which is manifested by selected variables outlined in Table 2. The purpose of analyzing Hispanic ethnicity was to explore how the relationship between engagement and persistence varied between Hispanic and non-Hispanic students. The classification of Hispanic/non-Hispanic reflects the ethnic group categories that the United States Census Bureau (2010) uses. This research contributes to empirical knowledge on what is known about educational engagement and persistence of

Hispanic students and to the theory about the relationship between engagement and persistence.

Table 2 provides the variables used in the study. The independent variables are broken into conceptual categories, which are explained in the theoretical framework section of this chapter.

Table 2

Variables of Engagement

Conceptual Category	Variable
Criterion variable	Plans to continue to attend college
Mediating	College name
Structural-student/classification	Hispanic
Structural-student	Father's education level
Structural-student	Mother's education level
Structural-student	Household income
Structural-university	First-semester experience course enrollment/completion
Structural-university	The extent of the institution's encouragement of students to interact informally with students from different economic, social, and racial or ethnic backgrounds (i.e., outside of class)?
Structural-university	The extent of the institution's encouragement of students to attend campus activities (special speakers, cultural performances, athletic events, etc.)
Psychosocial-university	Full-time enrollment
Psychosocial-university	Living on campus
Psychosocial-university	Hours spent per week participating in school-sponsored/managed co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, campus clubs, etc.)
Psychosocial-university	Participation in participated in a community-based educational project (i.e., service learning)

Psychosocial-university	Participation in a field experience or clinical assignment
Psychosocial-university	Participation in community service or volunteer work
Psychosocial-university	Taking college courses entirely online
Psychosocial-relationships	Quality of relationships with students
Psychosocial-relationships	Quality of relationships with faculty
Psychosocial-relationships	Quality of relationships with administrators
Psychosocial-relationships	Faculty interaction frequency outside of regularly scheduled class

Research Questions and Hypotheses

The following research questions, with corresponding null and alternative hypotheses, guided this study. The questions and hypotheses are divided according to conceptual categories—derived from the theoretical framework and shown in Table 2—and the level of measurement of the variables, which determined the analytical technique. This analysis is explained in greater detail in Chapter 3.

RQ1: Do Hispanic students and non-Hispanic students disproportionately persist from first to the second semester?

H_{01} : The proportion of first-to-second semester persistence is not significantly different between Hispanic students and non-Hispanic students.

H_{a1} : The proportion of first-to-second semester persistence is significantly different between Hispanic students and non-Hispanic students.

RQ2: Do structural-student attributes (parent education levels and family incomes) differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{02} : Parental education levels and family incomes do not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a2} : Parental education levels and family incomes differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ3. Does participation in a first-semester experience (FSE) type course differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{03} : Participation in FSE does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a3} : Participation in FSE does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ4: Does the perception that the university encourages interaction between students and participation in extracurricular activities differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{04} : The perception that the university encourages interaction between students and participation in extracurricular activities does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a4} : The perception that the university encourages interaction between students and participation in extracurricular activities does differ among the four

groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ5: Does level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₅: The level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a5}: The level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction differs among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ6: Does participation in co-curricular activities, service learning, field or clinical experiences or volunteering differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₆: Participation in co-curricular activities, service learning, field or clinical experiences or volunteering does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a6}: Participation in co-curricular activities, service learning, field or clinical experiences or volunteering does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ7: Does the quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₇: The quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a7}: The quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

Theoretical Framework

Idaho is in the bottom 15 states for students enrolling in and finishing a college degree. The state ranks 35th for overall educational attainment, 30th for 2-year college graduation, and 49th for 4-year college graduation (“Higher education rankings,” 2017). In 2015, Idaho’s rate of persistence for 4-year public universities was 72.2% overall, 73.8% for full-time students, and 44.3% for part-time students, while for 2-year public colleges, the rate of persistence was 47.9% overall, 55% for full-time students, and 37.2% for part-time students (National Center for Higher Education Management Systems, n.d.). My intent in this research was to garner a better understanding of the relationship

between the process of educational engagement and student persistence on behalf of both the student and the Idaho Community College system.

As Idaho policy makers continue to better understand what can be done to improve the persistence rates of first-year college students, a variety of factors are often suggested as either possible causes of low persistence or solutions to the low persistence. The role of the college itself is emphasized in its ability to provide the optimal environment, opportunities, support, and instruction. The student is measured both academically and personally in regards to her or his involvement with campus activities and opportunities as well as classroom participation and performance; integration with the college, peers, and faculty/staff members; motivation; and socioeconomic status (parental education and family income). To address these factors and their potential impact, a variety of studies have been conducted, policies implemented, and programs introduced. Yet Idaho's colleges continue to lose students following their first semester.

However, research on student engagement at the college level has been unclear in differentiating between the state of engagement, what caused that state, and what the consequences were (Kahu, 2013). Kahu's framework of student engagement clarifies this distinction and incorporates elements from seminal studies on engagement in a model that allows a more thorough understanding of the influences and factors that caused the low rates of persistence in Idaho's Institutes of Higher Education (IHE). Kahu's framework includes five elements. Preceding and affecting engagement are structural influences, which include culture, policies, curriculum, assessment, discipline at the college or university, student background, support, family and life load characteristics

such as balancing school with work and other responsibilities. These structural factors contribute to the psychosocial factors that influence student engagement, which include relationships between students and their teachers, staff, and support services as well as student workload, motivation, skills, identity, and self-efficacy. At the heart of the model is the state of engagement itself, which is characterized by three dimensions: affect, or feelings; cognition, and behavior. An engaged student has feelings of enthusiasm, interest, and belonging. He or she also cognitively engages with the college through deep learning and self-regulation. The engaged student puts time and effort into his or her work, interacts with his or her social and physical environment, and participates in college activities. Following from this state of engagement are both proximal and distal consequences. Proximal consequences include academic learning and achievement as well as social satisfaction and well-being. Distal consequences include retention, eventual work success, and, ultimately, lifelong learning, citizenship, and personal growth.

Using Kahu's (2013) framework of student engagement, this research focused on one distal consequence of engagement—retention—and conceptualized the state of engagement as arising from an interrelationship of institutional and student characteristics that are present in Idaho community colleges. Drawing from the National Survey of Student Engagement, I identified questions that were aligned to Kahu's (2013) framework in terms of the interplay of sociocultural influences and that were designed to evaluate influences and factors specific to Idaho's community colleges. These questions were based on my experience and involvement as a faculty member, administrator, and community partner. I also developed additional questions to provide a comprehensive

understanding of educational persistence as a function of select variables. Each of these characteristics—whether the presence of a first-year experience course, or the availability of on-campus housing—exert structural or psychosocial influences that are antecedents to student engagement and, ultimately, retention.

Nature of the Study

To allow for an understanding of the relationship between student engagement and persistence for first-year Hispanic and non-Hispanic students in Idaho's community colleges, quantitative data for the dependent and independent variables were collected using the First-Year Persistence survey (Appendix A) at three selected community colleges in Idaho. Data were collected and analyzed as follows:

1. The First-Year Persistence Survey (Appendix A) was disseminated via an online questionnaire. First-year students were contacted and recruited for the study, with the help of instructors, through a first-year distribution requirement course approximately 2 weeks through the Fall 2017 semester (after finalization of enrollment or Census).
2. At the beginning of the Spring 2018 (after Census) semester, the student ID numbers of those students completing the survey were cross-referenced with the Registrar (or applicable office) at each of the identified schools. This allowed the completed survey responses to be separated into students who did reenroll and those who did not reenroll in college.
3. Using the quantitative analysis discussed in detail in Chapter 3, the survey compared results of students who persisted and those who did not and further

statistically analyzed according to responses across the independent variable of ethnicity. Responses were evaluated using logistic regression to determine the strength of the association between each variable and the outcome, and whether that relationship was positive or negative

Research by Sax, Gilmartin, Jee, & Hagedorn (2003) concluded that response rates for online surveys are higher than those found in paper surveys and allow for a higher rate of response regarding racial and ethnic differences—which is critical in this study. There were 22 questions in the survey. Respondents were asked to respond to two questions from the conceptual category structural-university; they were asked to respond to four questions from the structural-student category, nine questions from the psychosocial category, and four from the psychosocial-relationships category. Students were asked three additional questions: their student identification number, the name of the community college they were attending, and their ethnicity.

Definitions

Hispanic or Latino. Refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race (U.S. Census, 2010).

Persistence. The continued enrollment (or degree completion) within the student's first 2 years of college, enrolling each term without a break in enrollment (National Student Clearinghouse Research Center, n.d.)

Retention. The progression of a student who enrolls each semester until graduation.

Student Engagement. The interaction between the time, effort, and resources by both students and their respective educations designed to benefit student learning and development as well as the educational institution as a whole.

First-Semester Experience. Defined by the Association of American Colleges and Universities (n.d.) as a high-impact educational practice built into the curriculum of first-semester students that focuses on critical inquiry, frequent writing, information literacy, collaborative learning, and skills that develop students' intellectual and practical competencies.

Assumptions, Scope and Delimitations, and Limitations

Assumptions

This study addressed the gap that exists in persistence rates between Hispanic and non-Hispanic students in Idaho community colleges. It was assumed that the selected population of each school was representative of the first-time student population over time. While variance is expected in the student cohort in each school and across the three community colleges, the admission practices at each have remained relatively constant.

Scope and Delimitations

The scope of the research included first-semester students, of both full-time and part-time status, from three public community colleges across Idaho: Western College, Southern College, and Northern College (all pseudonyms). Western College, the newest of the three community colleges, was founded in 2007 and has a current enrollment of approximately 28,000 students, of which half are pursuing general education or professional-technical degrees/certifications. Southern College, founded in 1965, has

similar student numbers with approximately 7000 degree-seeking students while Northern College, founded in 1933, has the smallest population with nearly 6,000 students enrolled in credit classes. Study participants were selected based on enrollment in courses primarily designed for new or first-semester students seeking an Associates of Arts (A.A.), Associates of Science (A.S.), or Associates of Applied Science (A.A.S.) degree. The sample did not include other IHE's in the state, for example, private, for-profit, or 4-year colleges and universities. The survey instrument was designed using selected items of interest for this study from the National Survey of Student Engagement (NSSE) and the operationalization of dimension as posited by Kahu (2013). While the use of the entire survey was an option, the identification of selected questions in combination with newly developed questions allowed for the focus on the four identified categories: academic/behavioral, cognitive, emotional, and socio-cultural. Second, while the research focused on community college students in Idaho, the characteristics of these students and students from other states are similar enough to make the results generalizable to other states and the larger population.

Two delimiting factors were related to the sample. First, data were collected on both full-time and part-time students in each of the colleges. While research has indicated that full-time students have higher rates of persistence in comparison to those attending on a part-time basis (National Student Clearinghouse Research Center, 2013), the study specifically addressed the variance of persistence with enrollment status as a variable. Second, while a student's household income was considered as a variable, the use (or

non-use) of federal financial aid, including loans and scholarships, was not included to reduce the possible variances.

The data for this survey were from one state, and thus the findings would probably have limited generalizability to other state populations. The sample size for this study was small; however, due to the depth of variables, the results can be generalized into a larger population and apply to educational entities at any level.

Limitations

While this was a population study within the context of community colleges in Idaho, the methodology could be used across populations. Other limitations included the fact that the selected sample only represented students during a single time period, fall 2017 through spring 2018, and each college has its own system for new freshman students (i.e., introductory courses). In addition, this research used a posttest only control group design, which did not determine if the effect of the independent variables of the two groups being compared was significantly different before the research was conducted. These limitations, however, did not present a significant concern because the student demographic population was largely consistent, and all freshmen students had the opportunity to complete the survey.

Potential biases in this study include my own involvement within higher education, my employment by an Idaho community college, and as the Lead Faculty of a First Semester Experience program. Throughout the conduct of this study, I guarded against personal bias towards the information by having my data reviewed independently by a colleague within the discipline of higher education

Significance

Implications of the research are that deeper knowledge is acquired about the cultural gap that exists in both community colleges and 4-year universities between Hispanics and non-Hispanics and that this knowledge may contribute to positive social change. While this research is specific to community colleges and Idaho, it could be beneficial to the academic community as a whole in the development of best practices, implementation of formal and informal intervention programs, and the overall increase in student and institutional awareness of factors that increase persistence of all students. Enhanced persistence has positive social and economic benefits not just for the student, but also for the institution, which gains diversity, and for society as a whole, which gains increased worker productivity and satisfaction, less reliance on public services, reduced rates of incarceration, better health, and greater life satisfaction (Oreopoulos & Petronijevic, 2013)

Summary

This chapter provided a brief background on the literature related to student engagement as well as the gap in the knowledge this study addressed. Next, I outlined the problem statement and provided evidence that the further study of the relationship of student engagement to persistence for Hispanic students is current, relevant, and significant. The purpose of the study was addressed, and the research questions and hypothesis were provided, and the theoretical framework for this study was discussed at length to include the major theoretical propositions and a theoretical model of the impact of the type of practices incorporated by community colleges in Idaho on the first-year

persistence of Hispanic students. Finally, I addressed the nature of the study and corresponding definitions, assumptions, scope and delimitations, limitations, and significance.

In Chapter 2, I provide a comprehensive review of the literature, which establishes the relevance of this study. I also provide a description of the major theoretical propositions that form the foundation of the study in relation to the foundational theories of student engagement and persistence to include Spady's retention model (1971), Pascarella's model of student-faculty informal contact (1980), Bean's (1980/1983) model of work turnover to student attrition, and Tinto's model of academic and social integration (1987/1993). Current theories of student engagement and persistence to include the conceptualization of engagement as the involvement or interest of students (Axelson & Flick, 2011), the effort on behalf of the institution to increase educational engagement (Green, Marti, & McClenney, 2008) are also provided as well as theories focused on specific factors impacting student engagement to include online learning environments (Dale & Lane, 2007), the influence of extracurricular activities (Kuh, 2009), and the role of both the student and the IHE (Coates, 2007). The proposed theoretical model by Kahu (2013) is discussed in detail as well as literature specific to high-impact educational practices and selected Hispanic/minority student engagement and persistence theories to include the impact of being a first-generation college student (Bailey, et al., 2005) and the need for development of campus climates that value and recognize the diversity of students (Szelenyi, 2001).

In Chapter 3, I discuss the methodology of the study to include the research design and rationale, study variables, research design and its connection to the research questions, time and resource constraints, the selection of the design choice, and the study's potential to advance knowledge through its findings. This chapter also provides information regarding the study population, sampling and the sampling procedures, the procedures for recruitment, participation, and data collection, as well as the instrumentation and operationalization of variables. The comprehensive detailing of the data analysis is addressed in addition to the threats of internal and external validity and the ethical procedures that were followed. Chapter 4 will present the results of this data analysis as well as describe the data analysis tools and rationale as well as the data collection process. Demographic characteristics as they relate to the results of the data analysis are further provided in this chapter. Chapter 5 concludes with a summary of key findings, interpretations of those findings, recommendations for further research, and implications of the results of the study.

Chapter 2: Literature Review

Understanding student engagement and its relationship to the persistence of students, particularly between their first and second-year of college, is significant to all students as well as to IHEs. The purpose of this quantitative study was to understand the relationship of selected antecedents of educational engagement with student persistence and how persistence varies for first-year Hispanic and non-Hispanic students in three community colleges in Idaho. This research sought to explain educational retention as a function of student engagement and how it differs between Hispanic first-year students and their non-Hispanic counterparts. As the persistence rate clearly differs between Hispanic and non-Hispanic students, and persistence is indicated as a function of engagement, this research examined how that engagement differs between the two groups. Despite the exponential growth of the Hispanic population in Idaho (U.S. Census Bureau, 1990, 2010, 2017), Hispanic students comprise only 8% of the state's higher education enrollment and have, on average, lower educational attainment rates than Hispanic's across the United States (Idaho Commission on Hispanic Affairs, 2016).

The disparity that exists between the Hispanic population and enrollment across the United States disparity is not singularly associated with Idaho colleges, as noted by Fry and Lopez (2012). They found that despite being the largest ethnic minority group on college campuses, Hispanic students have the highest probability of not completing post-secondary education. While the number of Idaho Hispanic students attending college has reached record levels those rates still lag significantly below their non-Hispanic counterparts as indicated in Table 3.

Table 3

Educational Attainment - Idaho

Educational attainment	Total Hispanic (2014)	Non-Hispanic (2014)
	Percent of population age 25+	
Did not finish 9 th grade	25	2
High school graduate	58	93
Bachelor's degree or higher	8	27

Source: 2014 U.S. Census

Student engagement is broadly defined through research. Depending largely on the scope of that research and the associated theoretical dimensions, foundational theories considered (a) individual dimensions of the behavioral, emotional, and/or cognitive (Finn & Voelkl, 1993; Fredericks, Blumenfeld, & Paris, 2004), (b) the role of academic and social integration (Tinto, 1987/1993), and the (c) impact of the organizational characteristics of the college such as rigor, support, and curriculum (Bean, 1980/1983; Newmann, Wehlage, & Lamborn, 1992). Current research, however, has taken a more systemic and holistic approach, seeking to understand the interrelatedness of each of these dimensions (Kuh, 2009; Axelson & Flick, 2011; Green, Marti, & McClenney, 2008; Zepke, 2015) while simultaneously adding additional dimensions such as emotional and socio-cultural (Kahu, 2013). Zepke (2015) referred to this holistic approach as a “socio-cultural ecosystem in which engagement is the glue linking classroom, personal background, and the wider community as essential contributors to learning” (p. 1311). This continuing development of what student engagement is, and

how it is measured, has resulted in a divergent set of definitions to include the following examples:

- “the time and energy that students devote to educationally sound activities inside and outside of the classroom, and the policies and practices that institutions use to induce students to take part in these activities” (Kuh, 2003, p. 25).
- “A broad construct intended to encompass salient academic as well as certain non-academic aspects of the student experience” (Coates, 2007, p. 122).
- “Students’ participation in educationally purposeful activities...in relation to assessment, feedback, and academic development...in which students construct knowledge through a more active and authentic learning process facilitated by academic staff, rather than relying on the transmission of knowledge from teacher to student” (Thomas & Jamieson-Ball, 2011, p. 22).

This research sought to understand the relationship between educational engagement and student persistence and how it varies for first-year Hispanic and non-Hispanic students in community colleges in Idaho. The role of community colleges is to provide open-enrollment education for students seeking to obtain a post-secondary education and workforce training. Significantly less expensive than 4-year colleges, community colleges are highly valued by students and the community. According to Bers, (1980) these colleges are “strategic potential facilitators of social change,

particularly when viewed as flexible and responsive to social needs” (p. 59). This is mirrored by Morest (2013) who emphasized the role community colleges play in “bridging cultures and educational gaps by offering students a chance to become college students regardless of past academic performance and family background” (p. 319).

While persistence and retention rates continue to be a concern due to the negative impact on students, community colleges, and society as a whole, the low percentage of minority students who remain in community colleges when compared to non-minority students is of even higher concern (Fry, 2004; Swail, 2004).

Despite the increasing ethnic diversity of our colleges and universities, Hispanic students are leaving these schools at significantly higher rates than their non-Hispanic counterparts. Research conducted by Fry and Lopez (2012) found that Hispanic students comprise the largest ethnic minority group on college campuses yet have a higher probability of not completing post-secondary education compared to non-Hispanic students. Hispanic students comprise a growing percentage of degree recipients, accounting for 13.2% of associate degrees and 8.5% of bachelor degrees, yet they lag significantly behind non-Hispanic students (Fry & Lopez, 2012). These statistics demonstrate that the promise of an equal education system for all students is far from realized as noted by Yen (2013), “the educational system is likely to be the most widely used and most acceptable policy tool we have for equalizing life chances but it does not seem so far to achieve this goal” (p. 1). With estimates of Hispanics comprising nearly 30% of the population in the United States by 2050 (Aizenman, 2008) it is imperative that the educational persistence, or lack thereof, of this student population, be better

understood in order to implement methods specifically designed to address and improve it.

In this chapter, I will present literature related to the research problem and purpose. The first part of this chapter contains a discussion of the literature search strategies used. The next section will present the major theoretical foundations along with literature and research-based analysis of how these propositions have been previously applied and how they relate to the present study and its research questions. Theoretical propositions will be presented in relationship to foundational and current engagement and persistence theories and how they were integrated to form this research's proposed theoretical model. Finally, I will present a literature review on the key variables and concepts of this research including Hispanic and minority student engagement/persistence theories, the role and impact of engagement in student persistence, and the role of the community college in persistence.

Literature Search Strategy

To identify relevant resources the following databases were used: *ProQuest*, *Education Research Complete*, *Education Resource Information Center (ERIC)*, *SAGE Premier*, and *Google Scholar*. The following keywords and phrases were used: *student persistence*, *educational engagement*, *student retention*, *community college*, *first-year students*, *first-semester*, *Hispanic students and persistence*, *Hispanic students and retention*, *Latino students and persistence*, *Latino students and retention*, *persistence and community college*. The scope of literature included a review of (a) the seminal literature

to establish foundational theories and research and (b) the peer-reviewed literature published within the past 5 years.

Theoretical Foundations

This literature review provides an overview of engagement and persistence theories in higher education. It begins with the presentation of foundational theories used to explain student persistence and retention and then focuses on more current theoretical explanations. It concludes with a proposed theoretical model of student engagement and persistence drawing from both seminal and current research theories.

Foundational Engagement/Persistence Theories

There are many theories and models that seek to explain student persistence and reasons for departure. Among them, Spady's retention model (1971), Pascarella's model of student-faculty informal contact (1980), Bean's (1980/1983) model of work turnover to student attrition, and Tinto's model of academic and social integration (1987/1993) provide the most comprehensive frameworks on student persistence. The onset of modern retention studies is typically associated with Spady (1971), in conjunction with Emile Durkheim. Using a sociological model of student dropouts, Spady linked the variables of academic potential, normative congruence, grade performance, intellectual development, and friendship support. The relationship between these variables, according to Spady (1970), determined the ability of the student to successfully assimilate into the academic and social system and persist.

Pascarella's (1980) model of student-faculty informal contact provided a hypothesis of the relationship between the background and personal traits of the student

and the mission, goals, and characteristics of the college itself. Focused on the interaction of students with faculty (academic) and peers (social), Pascarella's (1980) model sought to explain how this interplay resulted in student persistence. Bean's attrition model (1980/1983) linked the variables of dropout, satisfaction and institutional commitment, organizational determinants, and demographic variables to understand how the attributes of a college and their reward structure affected student satisfaction and persistence.

Recognizing the multifaceted nature of student engagement, Fredericks, Blumenfeld, and Paris (2004) continued to build on the model of student persistence through the review of three separate but interrelated dimensions of engagement: behavioral, emotional, and cognitive. Arguing that engagement was a "meta construct," Fredericks et al. recognized the interrelatedness of the three dimensions and suggested a variety of improvements to practice that could be used to improve school engagement to include better measurement of behavioral, emotional, and cognitive engagement (p. 60). Trowler (2010) further posited that the dimensions as provided by Fredericks et al. could be seen on a continuum of engagement from positive to non-engagement, again demonstrating the multifaceted nature of student engagement.

Research has concluded that a framework exists that allows the identification of factors on behalf of both the student and the academic institution that are significant in student success. Zamani (2000) included the factors of personal characteristics (motivation and intellectual ability), demographic characteristics (gender, age), cultural characteristics (ethnicity), and institutional characteristics (curriculum, enrollment). Research on student engagement and persistence, however, has focused primarily on the

academic and social aspects of engagement (Newmann, Wehlage, & Lamborn, 1992) without seeking to understand its context within the larger socio-cultural context.

Current Engagement/Persistence Theories

Recent literature has continued to build on the systemic approach taken by Fredericks et al. (2004), combining the roles and responsibilities of additional educational stakeholders such as teachers, staff members, and the institution as a whole. This approach was specifically noted by Kuh (2009a) with her recognition of student engagement as representing both the time and effort of the students and the role of the institutions in inducing student participation. For example, Axelson and Flick (2011) conceptualized engagement as the involvement or interest of students in their learning as well as their connections to their classes, institutions, and each other. Similarly, Green, Marti, and McClenney (2008) saw educational engagement as the representation of the effort not only of the student but also of the institution, including conditions that were in place to facilitate that effort. The literature on student engagement remains, however, as posited by Trowler (2010), a “mixed bag” (p. 9) with large variations existing across the unit of analysis, the focus of specialization, and the agenda of the research. Literature has focused on a wide array of factors impacting student engagement from specific student learning aspects and processes (Forrester, Motteram, Parkinson, & Slaouti, 2004), the impact of online and virtual learning environments (Dale & Lane, 2007), and the influence of extracurricular activities both on and off campus (Kuh, 2009).

This variation in literature is indicated in the wide-ranging definitions of student engagement; however, current literature has increasingly indicated the role of both the

student and the institution. Research by Coates (2007) provided a strong example of this interplay. Coates (2007) stated that engagement occurred along an axis of student and institution. Engagement depended on where students and institutions fell on this axis and ranged from intense to passive. Students who were highly involved with their learning in a challenging and supportive educational and social environment were operating in an intense form of student engagement while students with low participation and a non-challenging and supportive environment were engaged in passive student engagement. Coates (2007) did note, however, that these styles are not static and can be transitory in nature depending upon both the student and the institution.

Proposed Theoretical Model

This research draws from the conceptual framework of student engagement in higher education as developed by Kahu (2013). Recognizing the unclear differentiation between what Kahu (2013) identified as the state of engagement, what specifically caused that state, and what the consequences were, Kahu (2013) developed a framework consisting of five separate yet interrelated elements. Preceding and affecting engagement are, first, structural influences, which include culture, policies, curriculum, assessment and discipline at the college or university, and student background, support, family and life load characteristics. These structural factors contribute to the psychosocial factors that influence student engagement, which include relationships between students and their teachers, staff, and support services as well as student workload, motivation, skills, identity, and self-efficacy. At the heart of the model is the state of engagement itself, which is characterized by three dimensions: affect, or feelings; cognition, and behavior.

An engaged student has feelings of enthusiasm, interest, and belonging. He or she also cognitively engage with the college through deep learning and self-regulation. The engaged student puts time and effort into his or her work, interacts with his or her social and physical environment, and participates in college activities. Following from this state of engagement are both proximal and distal consequences. Proximal consequences include academic learning and achievement as well as social satisfaction and well-being. Distal consequences include retention, eventual work success, and, ultimately, lifelong learning as well as citizenship and personal growth.

Her framework considered not just each of these constructs independently, but rather the relationship that existed between them. Through this framework, Kahu (2013) acknowledged the process of engagement, its antecedents, and its consequences. Kahu's conceptual framework of student engagement has been further used to better understand the reciprocal relationships between student engagement and student /academic emotions (Kahu, Stephens, Leach & Zepke, 2015) as well as the variance of engagement depending upon a student's chosen discipline (Leach, 2016). Drawing from this framework of student engagement, this research focused on one distal consequence of engagement—retention—and conceptualized the state of engagement as arising from an inter-relationship of institutional and student characteristics that are present in Idaho community colleges. Each of these characteristics—whether it is the presence of a first-year experience course or the availability of on-campus housing—exert structural or psychosocial influences that are antecedents to student engagement and, ultimately, persistence.

Literature Review Related to Key Variables or Concepts

This portion of the literature review provides information on studies specifically related to the central constructs and variables of this research, including Hispanic/minority student engagement and persistence theories, the role of engagement in student persistence, and the role of community colleges in persistence.

High-Impact Educational Practices and Selected Variables

The survey used in this research measures variables aligned under the theoretical constructs and categories identified by Kahu (2013). To measure the impact of these constructs in relationship to first-year persistence and the *state* of engagement, the alignment of measurable variables based on research was required. Kuh (2008) addressed a variety of educational practices within education that are significantly related to increased rates of student engagement and retention. High-impact practices specifically addressed within Kuh's (2008) research include the utilization of first-year seminars and experiences, courses with service or community-based learning, and the utilization of internships and experiential learning. The antecedents of engagement, as noted by Kahu (2013), includes factors that measure the relationship of social factors and the thought and resulting behavior of the student (psychosocial-student and psychosocial-relationships) as well as the structural influences of both (structural-university and structural-student) and many of the selected variables for this study were selected due to their recognition as high-impact practices.

The categories "psychosocial-student" and "psychosocial-relationship" used within this research include variables of enrollment status, campus living status, presence

of a first-semester type experience type program, course modality, and participation in school-sponsored/managed co-curricular events, community-based education opportunities, field experience or clinical assignments, community service and volunteer work, and quality of relationships with peers, faculty, and staff. Many of these variables, as noted previously, have been identified as high-impact practices in increasing student engagement and therefore persistence. First-Year Experience programs, while relatively new within community colleges, continue to increase in number and strength (Bers & Younger, 2014) with the recognition that their implementation can significantly improve student persistence. Bers and Younger (2014) noted that the development of first-year programs has further spurred additional practices that strengthen student engagement and therefore persistence and retention such as the utilization of service learning. This high-impact practice, as noted by Bers and Younger (2014), has significantly increased learning outcomes within community colleges to include high scores within teamwork and career skills. First Semester Experience-type courses affect persistence because these courses not only serve as introductions to higher education, but further influence success of first-year students through a focus on essential study skills, introduction to institutional resources, and increased peer-peer and student-instructor interaction. Research conducted by Thompson, Orr, Thompson, & Grover, (2007) found that the completion of a first-semester experience type course significantly increased not only the persistence of students but also their cumulative grade point averages and rates of graduation. Acavedo-Gil & Zerquera (2016) specifically addressed the impact of first-semester experience

courses in their ability to create a synergistic support system for students and sense of community, particularly in low-income students of color.

The quality of the relationship that is formed between educational faculty, instructors in particular, and students is crucial to student engagement and is a further variable within “psychosocial-student” and “psychosocial-relationship.” According to Zepke et al. (2010), the “educational context created by teachers’ behaviors has a dramatic effect on student learning and engagement” (p. 18). Research conducted by Cinches, Russell, Chavez, & Ortiz (2017) further broke down the impact of student engagement by faculty finding that teacher effectiveness (instructional delivery, professionalism, assessment skills) was a more significant predictor than teacher engagement (social engagement, development of nurturing relationships). These findings were reiterated by Almarghani & Mijatovic (2017) who noted the role of teachers and their competencies as influential in the promotion of student engagement as well as Strati, Schmidt, and Maier (2017) and their research positively linking the instrumental support of instructors with engagement.

The quality of peer relationships is an additional variable within “psychosocial-student” and “psychosocial-relationship” and is a key factor in student engagement. As posited by Furer, Skinner, & Pitzer (2014), the quality of students’ relationships with peers is “a fundamental substrate for the development of academic engagement and achievement” (p. 102). The importance of quality peer relationships in regards to student engagement is further reiterated in the study on the resilience of university students by Fernandez-Martinez et al., (2017) who noted that the presence of “cooperate networks”

(p. 2) significantly increased not only educational engagement but improved academic results as well.

Online education courses have seen rapid growth throughout higher education and are often correlated with student persistence and retention. Gaebel (2013) stated that this rapid growth had called attention to the issue of student retention and low overall completion rates within this modality. Hall (2009) posited that the “rising use of the Internet for instructional delivery, coupled with the desire to improve student retention, continues to generate a need for a viable prediction instrument for advising students considering distance education” (p. 344). Online courses, as stated by Herbert (2006) have a 10–20% lower retention rate than traditional classroom rates and 40–80% of online students drop out of online courses (Smith, 2010). Understanding these low retention and high dropout rates is critical in understanding the exact relationship to online learning through the examination of “why online learners leave, when in their academic careers are they most prone to leave, and what can be done to eliminate or mitigate these causes” (Bawa, 2016, p. 1). Summers (as cited by Bawa, 2016) emphasized the value of social interaction specifically for community college students in regards to compatibility with the institution’s social system and inability to interact socially with peers in a strictly online environment.

Student enrollment status, (either full or part-time), will further be considered as a variable in this study as a determination of persistence with the hypothesis that part-time students will have lower persistence rates than their full-time peers. Status of enrollment, either full-time or part-time is a key indicator of college persistence. A report by RTI

International (2012) measured the persistence rate of students depending upon their attendance status and, as indicated in Figure 1 below, 53% of degree or certificate-seeking students who enrolled full time in Idaho community colleges persisted as compared to 38% of part-time students.

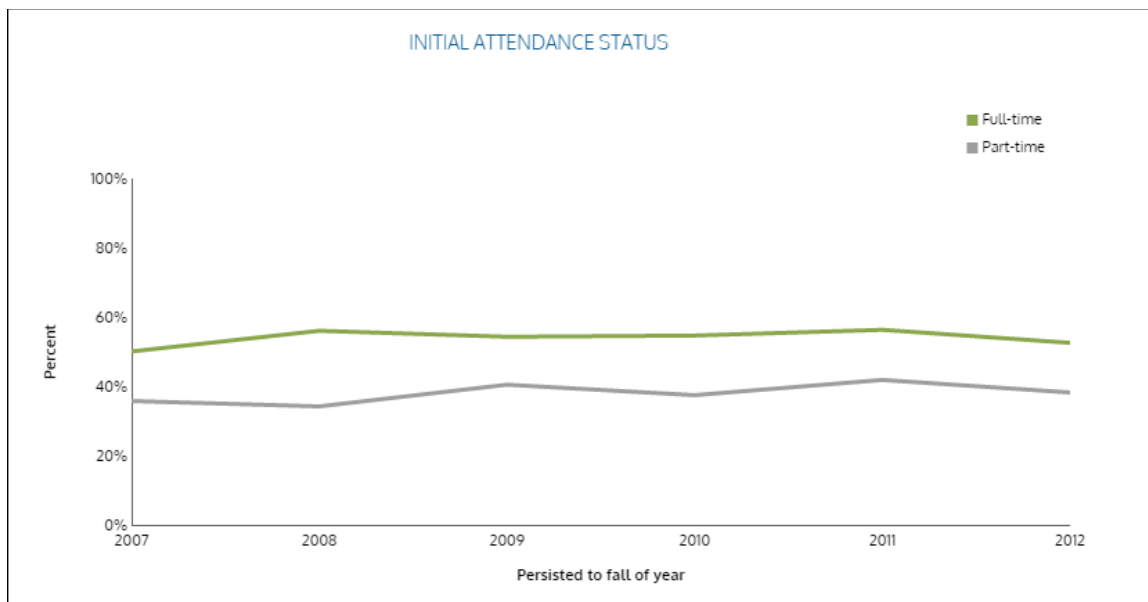


Figure 1. Persistence rates by attendance status at Idaho community colleges.

Additional variables within this category include involvement in clubs and/or co-curricular activities, a variable strongly aligned with the premise that a key component of persistence is social and academic integration within the institution (Baron & Corbin, 2012; Tinto, 1987/1994), and service and community-based learning opportunities. Research has repeatedly indicated increased rates of persistence in students who participate in these peer-group events to include clubs and extracurricular activities, school clubs and activities (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Titus, 2004). Courses integrating these opportunities are becoming increasingly used as a method of

integrating meaningful community service with instruction designed to enrich the learning experience and apply that experience to students' academic and personal development. These variables further draw from Tinto's (1987/1994) model by addressing what Fredericks et al. (2004) posited as aspects of learning strategies designed to develop flexible problem solving, independent work styles, and techniques intended to engage students as a higher level of learning and understanding.

Living arrangements are further considered in this research as a predictor of persistence and retention. From as early as the 1970s, research has concluded that students who live on campus are more engaged due to involvement in academic activities, extracurricular activities, and social activities with other students (Chickering, 1974; Pascarella, 1984; Chickering & Kyle, 1999; Smith, MacGregor, Matthews, & Gabelnick, 2004). Chickering (1974) noted that this increased engagement allowed for increased interaction with peers, campus organizations, faculty, and staff. Research conducted by Walsh and Robinson-Kurpius (2016) validated these early findings in determining the residential status (living on-campus) was positively related to increased academic persistence of first-year college students.

A 2013 report by U.S. News and World Report found that the number of college students taking at least one online course had doubled since 2011 to more than 6.7 million students. Despite this increase, high attrition in online courses continues to be a concern, although this could largely be attributed to a lack of persistence overall. Hart (2012) identified a variety of factors that were related to student persistence in online courses to include overall course modality satisfaction, a sense of belonging, the quality

and timeliness of instructor communication and feedback, and time management skills. Shea and Bidjerano (2014) used a more holistic approach to understand the impact of online learning on persistence through the control of relevant background characteristics such as ethnicity, gender, and SES. Their research found that community college students who had completed at least some of their early courses online or through distance education had a significantly better chance (13.5% as compared to 8.9% of students completing only traditional face-to-face courses) of completing their degree. With the increasing popularity of online education, determination of the impact of strictly online courses is a significant factor in persistence (Shae & Bidjerno, 2014). According to Meyer (2014), engagement is even more critical in online courses as those students “have fewer ways to be engaged with the institution and perhaps greater demands on their time and attention” (p. 1).

The categories “structural-university” and “structural-student” include factors measuring the impact of an IHE’s encouragement of informal student involvement as an opportunity to participate with other students and a diverse student population, and sociocultural and demographic factors to include parental education, sex, and household income. While many within Idaho have hypothesized as to why there is variability of first-year persistence between Hispanic and non-Hispanic first-year students, this study is based on the conjecture that a higher proportion of Hispanic first-year students who attend Idaho community colleges, compared to non-Hispanic first-year students at these colleges, are first-generation college students. Research conducted by the National Center for Education Statistics (NCES) found that between 1992 and 2000, over 43% of first-

generation students enrolled in post-secondary education left before obtaining a degree (Chen, 2005). Engle and Tinto (2008) further supported this statistic in reporting that first-generation students were nearly four times more likely to not complete their post-secondary education when compared to non-first-generation students. Parental education levels are critical as a factor in students' enrolling in college. Research conducted by the NCES (2006) found a positive correlation between parental education attainment and student college enrollment in that approximately 40% of individuals with parents with a high school education or less ultimately enrolled in college as compared to 86% of parents who had earned a bachelor's degree.

Often aligned with parental education level is household income, defined by Jez (2014) as the reported assets of a household minus the reported debts. Household income or SES and parental education are of significance in this study as lower-income students are overrepresented in two-year colleges and enroll the largest number of low-income and first-generation students (Bailey et al., 2004). Even when controlling for factors such as high school grade point average and standard achievement test scores and other personal characteristics, Bailey et al., (2004) concluded that SES and income are strongly related to the probability of persistence and graduation.

Hispanic/Minority Student Engagement/Persistence Theories

A wide variety of research has been conducted on the application of student engagement and persistence theories specifically to minority populations (Hawley & Harris, 2005; Testa & Egan, 2014; Ream & Rumburger, 2008; Bailey, Jenkins, & Leinbach, 2005; Cole, Matheson, & Aniston, 2007; Garcia, 2010; Quaye & Harper,

2015). While the predominance of this research has addressed women and African-American students, a growing body of literature and research has sought to understand persistence as it applies directly to the Hispanic population. One of the main reasons for this focus is, as posited by Hawley and Harris (2005), and Otero, Rivas, & Rivera,(2007), the overwhelming proportion of student attrition of first-year Hispanic students. An assortment of factors to explain this high attrition rate has been identified in recent research, including: substantial disadvantages in resources and measures of socioeconomic status and the influence of peer social capital (Ream & Rumburger, 2008), the Hispanic's greater likelihood of being the first in their families to attend college, or coming from families of low educational attainment (Bailey, et al. 2005), and the perception of a negative college environment as a result of conflict with the university social and cultural norms (Castillo, et al., 2006).

The literature on this issue examines many factors relating to the low persistence rates of minorities within community colleges, specifically in relation to social and academic concerns on behalf of the student and the colleges themselves (Erdman & Brazil, 2008; Garcia, 2010; Szelenyi, 2001). Cole et al. (2007) argued that negative stereotypes are the primary factor in low persistence because they negatively affect the academic self-efficacy and performance of minority students, which, in turn, has a negative effect on persistence. Gonzalez & Morrison (2016) argued that foundational theories made the assumption that to be successful in college, students from minority groups needed to reject their own culture to be fully integrated, which clearly deviates from an important concept of Hispanic students. The literature on this issue illustrates the

social, academic, and cultural factors relating to low minority retention within the community college.

There are three overarching social factors affecting the persistence of minority students identified within current literature: campus climate, language, and cultural barriers, and poverty. Quaye and Harper (2015) identified the role of faculty and student interaction, racism, finances and financial aid, and critical mass, or the exposure of students to a significant number of other minority students on campus in providing a sense of community. Szelenyi (2001) emphasized the need to develop a campus climate which values and recognizes the diversity of students. Development of a supportive environment not only shapes the instructional climate but also encourages the development of clubs and activities to help reduce the social gap often felt by minority students. Language and cultural barriers are also significant social factors as they can prohibit understanding of instructional and institutional requirements (Garcia, 2010). The social factor of poverty has multiple impacts to include higher use of distance education (Edman & Brazil, 2008) and reliance on financial aid. Minority students are often first in their family to attend college and are not aware of the timelines and deadlines of financial aid and scholarships. This reliance can also impact their ability to obtain textbooks or necessary supplies in a timely manner. Reason (2009) noted that the effects of the role of the family has not been fully studied in its relation on persistence specifically for Hispanic students resulting in a lost opportunity that would benefit from the strong family ties that exist. In addition to the social factors, current literature also examines the academic factors increasing the minority dropout rate within community colleges.

In terms of minority retention, there are three primary academic factors as indicated in the current literature: academic self-efficacy, poor academic preparation (on the part of both the student and the institution), and the increasing utilization of distance learning. Academic self-efficacy, a valid predictor of academic achievement (Bong, 2001; Gore, 2006; Hsieh et al., 2007; Edman & Brazil, 2008), impacts not only a student's academic confidence but also their overall success. This self-efficacy is exacerbated by the academic factor of poor academic preparation. Considered from both the institutional and student perspective, this factor has a negative cyclical effect. Minority students are often poorly prepared through elementary and secondary education which is aggravated by the open door policy of community colleges. From the institutional perspective, college staffs are not adequately informed and trained on this lack of college preparation, resulting in misunderstandings and lack of proper guidance. Increased use of distance learning is an additional academic factor. The increase in enrollments within community colleges, and corresponding increased space requirements are leading to colleges to rely heavily on this modality (DeMaria & Bongiovanni, 2012). One potential drawback to distance education is the absence of face-to-face communication with instructors. When factoring in potential cultural and language difficulties, as well as reduced academic self-efficacy, minority students are at an increased risk for dropping out and possibly leaving school altogether.

The relationship of educational engagement to student persistence

To fully understand the relationship of educational engagement to student persistence this section will clearly define each of these constructs as well as address the

factors and inputs that contribute to better educational engagement from the context of institutional characteristics as well as student characteristics. In addition, it will address the outcomes that result as well as the scope of low persistence not just in Idaho but nationwide and what causes low persistence in different groups.

Engagement. As noted at the beginning of this chapter, the definition of educational engagement is varied depending upon the perspective of its application. However, a common thematic content to the definition is the use of active participation in educational processes by the student, instructor, and institution, leading to measurable and desirable outcomes. As varied as the definition of educational engagement is the determination of what contributes to its success. Through an exhaustive literature review on educational engagement, Trowler (2009) identified inputs of success factors for engagement across the following areas: students, staff, local context, institutions, and national policy. From the perspective of the student and staff, inputs of success include optimal conditions and activities and the interaction with new ideas and practices (Coates, 2007), a positive educational context (Umbach & Wawrzynski, 2009), and ongoing contributions by the faculty and staff of the IHE's to include encouragement, frequent feedback, active learning opportunities, valuing of scholarship and intellectual discourse, and ongoing collaboration (Kuh, 2009). Inputs of success from the perspective of the institution include providing the necessary resources and support services (Kuh, 2007), an "unshakeable" emphasis on the mission and philosophy of the IHE (Pike & Kuh, 2005), and the development of an inclusive environment that allows all students the ability to "engage on equal terms" (Markwell, 2007, p. 19). From the context of local

factors and national policy, ensuring that the programs of study are of high impact with the ability to achieve the desired effects are of significant importance (Kuh, 2009) in increasing student engagement in their ability to ensure students implement what they are learning while in school.

Research has been conducted on a variety of factors and conditions related to educational engagement from both the perspective of the student and the IHE and researchers have demonstrated that when these factors and conditions are present for students, better persistence, as well as better academic performance, a higher rate of satisfaction, and higher graduation rates are expected results (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). There is a multitude of positive results of engagement to include student retention, higher throughout rates and increased timeframes in graduation, improved opportunities for students who have been historically underserved (Kuh, 2009), and strengthened curricular relevance (Trowler, 2010). This is mirrored by Harper and Quaye (2009) who noted the positive impact of social justice in increasing the engagement of a variety of previously marginalized student populations. The benefits of student engagement transcend the student and are recognized by the institution in areas both reputational and financial (Coates, 2005) and as a measure of educational quality (Kuh, 2009). Society as a whole further benefits from positive student engagement through the resulting rates of retention and obtainment of college degrees, development of informed citizens, lower demands on the criminal justice system, greater civic participation, and increased tax revenues (Watts, 2001). Kuh (2003) noted that “students who are involved in educationally productive activities in college are developing habits

of the mind and heart that enlarge their capacity for continuous learning and personal development” (p. 25).

Persistence. Persistence is defined as the continued enrollment (or degree completion) within the student's first 2 years of college, enrolling each term without a break in enrollment (National Student Clearinghouse Research Center, n.d.). A report by the National Student Clearinghouse (2014) indicated that the percent of first-time students who were enrolled at any college in their second term dropped 1.2% since 2009 and that the persistence rate is highest among young (20 or under) first-time students. These statistics are mirrored by the Community College Research Center (n.d.) who particularly noted that student persistence rates at community colleges were low, particularly among low-income students, students of color, and first-generation students. While persistence is a concern for all students, there have been numerous studies that have documented the gaps in persistence between the educational attainments of minorities versus non-minorities (National Center for Education Statistics, 2012). Nora and Crisp (2009) noted that is of increased concern for Hispanic students in that the low levels of formal schooling they have earned has resulted in an overrepresentation in low-skills occupations, higher unemployment rates, and increased poverty rates. A variety of factors are suggested to explain this to include low high school completion rates and discrepancies in the types of institutions attended (Nora & Crisp, 2009), parental educational attainment and involvement in education, school characteristics, and student behaviors and activities (National Center for Education Statistics, 2012).

The Role of the Community College in Persistence

According to a 2012 report by the American Association of Community Colleges (AACC), the number of students attending community college increased by over 2.5 million in the last ten years due in large part to the ability of community colleges to provide specific training and expand access to higher education. In fall 2016, nearly 6 million students were enrolled in public, two-year colleges (Community College Research Center, 2016). Despite the increasing numbers, however, the AACC reports that approximately only 25 percent of those students will graduate or move into a 4-year college (American Association of Community Colleges, 2017). Students at two-year colleges are, as posited by Brock (2010), far less likely to complete a degree when compared with students at 4-year institutions. The impact of decreasing rates of graduation, despite the increasing rates of attendance, is far reaching not only locally but nationwide. In a report conducted by the American Enterprise Institute, Schneider and Yin (2012) calculated that reducing the dropout rate by half within community colleges would generate “160,000 new graduates earning \$30 billion more in lifetime income and creating an additional \$5.3 billion in total taxpayer revenue” (p. 1). Persistence and retention are also crucial issues for the federal and state governments in terms of ensuring that monies invested are producing results and are implementing numerous accountability laws and programs (Seidman, 2005). A variety of factors are provided regarding the characteristics often inherent in community college settings that result in these rates to include higher rates of underprepared students (McCabe, 2000), more students attending on a part-time basis (Fike and Fike, 2008), and higher percentages of first-generation

students (Thayer, 2000). While community colleges are becoming much more ethnically diverse and minority students are attending college at increasing rates, they are leaving at significantly higher rates than their non-minority counterparts. According to Carter (2006), racial or ethnic minority students have a higher probability of not completing post-secondary education than non-minority students.

Summary

In this chapter, I presented literature related to the study through the initial discussion of selected literature search strategies, the presentation of the major theoretical foundations along with the literature and research-based analysis of how those propositions have been previously applied as well as their relationship to the present study and its research questions. I further presented theoretical propositions in relationship to foundational and current engagement and persistence theories and their relationship to this research's proposed theoretical model. These early theoretical propositions form the groundwork of the study and include foundational studies of student engagement and persistence such as Spady's retention model (1971), Pascarella's model of student-faculty informal contact (1980), Bean's (1980/1983) model of work turnover to student attrition, the model of student engagement as presented by Fredericks, Blumenfeld, and Paris (2004), and Tinto's seminal model of academic and social integration (1987/1993). Current theories of student engagement and persistence were provided to include the conceptualization of engagement as the involvement or interest of students (Axelson & Flick, 2011) and the effort on behalf of the institution to increase educational engagement (Green, Marti, & McClenney, 2008). Theories focused on

specific factors impacting student engagement such as instructional modality (Dale & Lane, 2007), participation in extracurricular activities (Kuh), the respective role of both the student and the IHE (Coates, 2007), and the potential impact of a First-Year Experience course (Bers & Younger, 201) were further discussed to provide additional information on high impact practices often associated with increased persistence of students. Finally, the selected theoretical model by Kahu (2013), which guides this research, is provided as well as a literature review on the key variables of Hispanic and minority student engagement/persistence and the role of the community college to include the impact of being a first-generation college student (Bailey, et al., 2005) and the need for development of campus climates that value and recognize the diversity of students (Szelenyi, 2001).

In Chapter 3, methodology, I will provide information on research design and rationale to include the study variables, research design and connection to the research questions, constraints, an explanation as to design choice, and the potential of the study to advance knowledge. In addition, I will discuss information on the study population, sampling and sampling procedures, recruitment, participation, data collection, and instrumentation and operationalization of variables. Finally, I will detail the data analysis, threats to internal and external validity, and the ethical procedures that will be followed.

Chapter 3: Research Method

The purpose of this quantitative study was to understand the relationship of selected antecedents of educational engagement with student persistence and how persistence varies for first-year Hispanic and non-Hispanic students in community colleges in Idaho. This research sought to explain educational retention as a function of student engagement and how it differed between Hispanic first-year students and their non-Hispanic counterparts. As the persistence rate clearly differs between Hispanic and non-Hispanic students, and persistence is indicated as a function of engagement, the research examined how that engagement varied between the groups. Understanding how student persistence differs between Hispanic and non-Hispanic students across a holistic array of factors provides a more thorough understanding of how the level and types of engagement practices and programs implemented in Idaho community colleges, as well as community colleges across the United States, can be adjusted to improve the rate of persistence.

This chapter will discuss the methodology of this study. The first section concerns the research design and rationale, including the study variables, the research design and its connection to the research questions, time and resource constraints, the selection of the design choice, and the study's potential to advance knowledge. Secondly, the chapter contains information regarding the study population, sampling and the sampling procedures, the procedures for recruitment, participation, and data collection, as well as the instrumentation and operationalization of variables. This chapter will also provide a comprehensive detailing of the data analysis that will occur following data collection and,

finally, it will address the threats to internal and external validity and the ethical procedures that will be followed.

Research Design and Rationale

This research used a series of quantitative analyses to understand the variation of engagement and persistence between Hispanic and non-Hispanic first-year community college students. Quantitative research, as defined by Creswell (2009), provides the ability to test objective theories through the examination of the relationship among variables. The benefit of this methodology is that it allows “explanations and predictions that will generate to other persons and places” (Williams, 2007, p. 66). This benefit will be realized in the ability of quantitative research to provide information that can be analyzed numerically in the form of statistical reporting. As stated by Creswell (2009) quantitative research allows for the testing of pre-determined hypothesis and the production of generalizable results. While there are no resource or access constraints in this research design, the gap between the collection of data and the subsequent analysis serves as a potential time constraint.

The design of this study was derived from the problem statement, which suggested a need to know more about the disproportionate rate of Hispanic students’ persistence in post-secondary education when compared to their non-Hispanic counterparts. Seven research questions guide this study. The questions served to group the analyses of the (a) conceptual categories of factors that comprise engagement and of the (b) analytical technique as explained in the data analysis section. The questions were as follows:

RQ1: Do Hispanic students and non-Hispanic students disproportionately persist from first to the second semester?

H_{01} : The proportion of first-to-second semester persistence is not significantly different between Hispanic students and non-Hispanic students.

H_{a1} : The proportion of first-to-second semester persistence is significantly different between Hispanic students and non-Hispanic students.

RQ2: Do structural-student attributes (parent education levels and family incomes) differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{02} : Parental education levels and family incomes do not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a2} : Parental education levels and family incomes differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ3: Does participation in a first-semester experience (FSE) type course differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{03} : Participation in FSE does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a3} : Participation in FSE does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ4: Does the perception that the university encourages interaction between students and participation in extracurricular activities differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₄: The perception that the university encourages interaction between students and participation in extracurricular activities does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a4}: The perception that the university encourages interaction between students and participation in extracurricular activities does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ5: Does level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₅: The level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a5}: The level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction differs among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ6: Does participation in co-curricular activities, service learning, field or clinical experiences or volunteering differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₆: Participation in co-curricular activities, service learning, field or clinical experiences or volunteering does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a6}: Participation in co-curricular activities, service learning, field or clinical experiences or volunteering does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ7: Does the quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₇: The quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class does not differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a7}: The quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class does differ among the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

Population

There are three public community colleges across Idaho: Western College, Southern College, and Northern College. Northern College has the smallest student population with nearly 6,000 students enrolled in for-credit courses, Western College has a current enrollment of approximately 28,000 students of which half are pursuing general education or professional-technical degrees/certifications, and Southern College has 7,021 degree-seeking students. The target population for this research was first-year degree-seeking students currently enrolled in these three community colleges: approximately 4,500 students in all, across the three colleges. The ethnic makeup of the three colleges largely mirrors the state as a whole.

Sampling and Sampling Procedures

This research used stratified sampling to obtain a sample that represents adequate response rates from Hispanic and non-Hispanic first-year students thus increasing the level of accuracy as stated by Franfort-Nachmias and Nachmias (2008). The sampling frame of the research is the target population as previously identified. Utilization of stratified sampling provides for equitability of both student populations and allows for a determination of the impact of the type of practices used in Idaho community colleges on first-year persistence. The stratified sampling was not used until the data were collected (Phase 2) when responses of the total population (all participating students across the three community colleges) were divided between Hispanic and non-Hispanic respondents. As the student population of Hispanic students is small across the three colleges, this ensured representation that might otherwise not have a significant enough

presence in the sample to allow for statistical generalizations. There were no inclusion or exclusion criteria in this research beyond non-first-year students.

Laureate Education (n.d.), stated, “the power analysis is for the global F test of the null hypothesis” (p.4). Accordingly, I set the alpha level at .05 and my effect size at .50, or a moderate level. This effect size was selected because the majority of questions used in this survey reflect questions selected from the NSSE, which utilizes Cohen’s *d* as part of their standard reporting documentation. As stated by Springer (2006), this effect size “provides a practical significance indicator that can help bring context to the results” (p. 1) in its ability to readily identify areas of success and/or improvement. Choosing the appropriate effect size is critical in order not to make a Type I or II error. The smaller the effect size inputted, the larger the sample size needs to be. This is reiterated by Slavin and Smith (2009) who stated that “it takes a larger effect size to produce statistical significance in a small study than in a large study” (p. 501). Because my research study included 21 dependent variables, I indicated 21 as the number of predictors. The alpha power of .05 provided a 95% chance that the result of the study was correct. The total sample size indicated for my research was 355 and a sample size of 217 for Hispanic first-year students.

Recruitment, Participation, and Data Collection

Quantitative data for the variables were collected using a survey distributed to first-year (freshmen) students through typical first-year course instructors as identified by their respective school Registrar at approximately three-quarters of the way through the Fall 2017 semester (Phase 1). To recruit participants, I contacted the instructors via face-

to-face meetings and e-mail at the three community colleges identified as teaching a course typically populated by freshmen students, Introduction to Communication. As the Idaho State Board of Education defines the requisite courses for general education, each of the community colleges in this research had comparable courses. Participating instructors were provided with information regarding the survey as well as the link to the research survey and asked to distribute it to their respective students. A follow-up e-mail/visit occurred two weeks after the initial distribution thanking instructors for their participation, letting them know the number of responses I had received, and asking them to distribute a second time as feasible to their students.

The survey tool was the online platform SurveyMonkey. Informed consent was obtained through the use of a consent form on the first page of the survey, “no response” or “prefer not to respond” as an option for every survey question (with the exception of student identification number), the ability of respondents to proceed without answering questions, and an option to withdraw from the survey. There were no exit procedures for the survey or the study for those participating.

Through the IRB approval obtained from each of the three participating schools and following IRB approval through Walden University (Approval No. 12-05-16-0353626), student identification numbers of those students completing the survey were cross-referenced with the registrar at each participating college. This allowed for survey responses to be separated into students who did re-enroll (persist) and those who did not re-enroll (persist) at the completion of the initial census (10 days) of the Spring 2018 semester.

Instrumentation and Operationalization of Constructs

The survey instrument for this research was designed using selected items from the National Survey of Student Engagement (NSSE) and the operationalization of factors impacting student persistence as posited by Kahu (2013). The independent variables selected as indicators within each category are supported by previous research as outlined in the literature review portion of this research. The NSSE is a unmistakably established instrument developed to measure student engagement in a variety of educationally related activities and desired college outcomes (Kuh, 2009) through ten engagement indicators organized within four engagement themes: academic challenge, learning with peers, experiences with faculty, and campus environment (NSSE, 2015).

Reliability analyses were conducted to determine internal consistency using Cronbach's alpha. Because the data collection instrument was created for this research, validity was established using the literature review and the inherent validity found in the extant instrument used to create the data collection instrument in this research. Items from the NSSE survey can be used to create scales that are valid measures of student behavior, and individual items can be used as valid measures (Kuh, 2004).

The survey (see Appendix A) contained 21 separate questions. I selected 13 existing questions from the NSSE to use in my survey because they measured institutional and student characteristics. I developed additional questions to include a question regarding the enrollment/completion of a First Semester Experience type introductory course as a high-impact educational practice (Kuh, 2008). The remaining questions provided demographic information on the participant. The first survey item

asked students to provide their student number. This mandatory question allowed for the Phase 2 data collection. Five of the data collection items were yes/no responses asking questions in regards to enrollment, residency, course modality, completion of a First Semester Experience type course, and plans on continuing college in the ensuing semester. Three of the survey items were in the form of a 6-point Likert-type items, which ranged on a scale from 1 (*poor*) to 6 (*excellent*), and six data collection survey items were in the form of a 6-point Likert-type scale with values that ranged from 1 (*none*) to 6 (*always*). Additional questions regarding parental education, income, school of attendance, ethnicity, and school identification number are indicated in the complete survey contained in Appendix A.

Data Analysis

Using SPSS for analysis, this quantitative study addressed the hypotheses as stated previously. To facilitate appropriate data cleaning and screening, the data were initially coded according to the variable names and values for each response option, which was part of the survey creation process in Survey Monkey. The data were then imported into SPSS from Survey Monkey. I cleaned the data and performed exploratory data analysis, including running frequency tables and evaluating central tendencies for each variable, verifying that variables had the correct values, ensuring that there were no missing values and recoding as necessary. To test the hypotheses and answer the research questions, I conducted the following analyses as indicated in Tables 4 and 5 below.

Table 4

Analyses

Research Questions	Datapoints Yielded	Data Analysis
RQ 1: Do Hispanic students and non-Hispanic students persist disproportionately from first to the second semester?	<ul style="list-style-type: none"> • Hispanic • Persistence 	ANOVA
RQ 2: Do parent education levels and family incomes differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?	<ul style="list-style-type: none"> • Father's education • Mother's education • Family income 	MANOVA
RQ 3: Does participation in FSE differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?	<ul style="list-style-type: none"> • FSE 	MANOVA
RQ 4: Does the perception that the university encourages interaction between students and participation in extracurricular activities differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?	<ul style="list-style-type: none"> • Encouragement to interact with other students • Encouragement to attend activities 	MANOVA
RQ 5: Does level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?	<ul style="list-style-type: none"> • Fulltime enrollment • Living on campus • Online 	MANOVA
RQ 6: Does participation in co-curricular activities, service learning, field or clinical experiences or volunteering differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?	<ul style="list-style-type: none"> • Co-curricular activities • Service learning • Field experience • Volunteering 	MANOVA
RQ 7: Does the quality of relationships between students, faculty, and administrators differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?	<ul style="list-style-type: none"> • Quality between students • Quality with faculty • Quality with admins • Frequency with faculty 	MANOVA

Table 5

Variables, Level of Measurement, Values/Scale, and Statistical Procedures

Conceptual Category	Variables	Level of Measurement	Values/Scale	Statistical Procedure for hypothesis testing
Persistence (IV)	Plans to continue to attend college (persistence)	Nominal	Yes/No/Unsure	NA
	Persistence	Nominal	Yes/No	NA
Background Classification (IV)	College name	Nominal	3 categories	N/A
	Hispanic	Nominal	Yes/No	NA
Structural-student	Sex	Nominal	Male/Female	NA
Structural-student	Father education level	Ordinal (treated as interval)	7 ordered categories (+ unsure)	MANOVA
Structural-student	Mother education level	Ordinal (treated as interval)	7 ordered categories (+ unsure)	MANOVA
Structural-student	Household income	Ordinal (treated as interval)	7 ordered categories (+ unsure)	MANOVA
Structural-university	First-semester experience enrollment/completion	Nominal	Yes/No	MANOVA
Structural-university	The extent of the institution's encouragement of students to interact informally with students from different economic, social, and racial or ethnic backgrounds (i.e., outside of class)	Ordinal (treated as interval)	6 levels	MANOVA
Structural-university	The extent of institution's encouragement of students to attend campus activities (special speakers, cultural performances, athletic events, etc.)	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-University	Full-time enrollment	Nominal	Yes/No	MANOVA
Psychosocial-University	Living on campus	Nominal	Yes/No	MANOVA

Conceptual Category	Variables	Level of Measurement	Values/Scale	Statistical Procedure for hypothesis testing
Psychosocial-University	Hours spent per week participating in school-sponsored/managed co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, campus clubs, etc.)	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-University	Participation in a community-based educational project (i.e., service learning)	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-University	Participation in a field experience or clinical assignment	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-University	Participation in community service or volunteer work	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-University	Taking college courses entirely online	Nominal	Yes/No	MANOVA
Psychosocial-relationships	Quality of relationships with students	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-relationships	Quality of relationships with faculty	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-relationships	Quality of relationships with administrators	Ordinal (treated as interval)	6 levels	MANOVA
Psychosocial-relationships	Faculty interaction frequency outside of regularly scheduled class	Ordinal (treated as interval)	6 levels	MANOVA

Threats to Validity

The methods for ensuring validity and reliability in this quantitative research study are consistent with established research. The design of this research was the posttest-only control group which, as explained by Trochim (2006), measures the difference of the mean between the control group and the treatment group. The posttest in this research is the determination of the survey responses by students who persisted through the ensuing college semester and the variability of their responses according to the mediating variable – ethnicity. The posttest only control group design is a true experimental design that, according to Campbell and Stanley (1963), is “underused” (p. 26) in the educational research worlds. The primary advantage to this design is that it does not involve pre-testing. The threats of impracticality and potential invalidity are minimized, as participants are not required to take pretests. The primary assumption upon which this design rests is that of the effectiveness of randomized sampling in providing statistically equal groups, for if the groups are not distributed equally, there is no pretest to indicate such inequality, and the posttest results would not be valid. However, if the assumption is correct that randomization is “the most adequate all-purpose assurance of lack of initial biases between groups” (Campbell & Stanley, 1963, p. 25), then the posttest-only control group design maintains strong internal and external reliability.

Ethical Procedures

Students were provided an informed consent form that included the purpose of the study, how the survey was going to be conducted, its benefits, the confidentiality of the responses, how the findings would be used, and researcher contact information. By

beginning the survey, participants acknowledged that they had read the information and agreed to participate in the research with the knowledge that they were free to withdraw from participation at any time without penalty. There were neither exit procedures for the study nor follow-up procedures. All freshmen students in the population had an equal chance of being involved in the study. Each of the three community colleges provided IRB approval ensuring that ethical issues were considered and were nonexistent in the study.

Data were collected via an online survey using SurveyMonkey with an SSL encryption to assure the security of information transmitted over the internet and stored digitally. Only I as the researcher had access to the data and after 5 years upon completion of the research and subsequent analysis, it will be destroyed.

Summary

Understanding the relationship of student engagement to persistence for Hispanic first-year students as well as explaining educational retention as a function of student engagement and how it differs between those students and their non-Hispanic counterparts requires a thorough assessment of a variety of factors. Previous research in the area of academic engagement and persistence for Hispanic community college students has focused primarily on singular factors, each significant in the field of educational retention and persistence, but not fully allowing for the examination of the effect of a variety of forces and how they contribute to minority students' community college experiences and their ultimate persistence. The design and methodology of this quantitative research examined the variables of engagement across a full spectrum of

categories from those affecting the academic and behavioral to cognitive, emotional, and socio-cultural factors. Use of ANOVA allowed for the determination of the association between each of these factors of engagement and the groups of interest.

Chapter 4 will provide the results of the study and its statistical analysis findings according to the research questions and corresponding hypotheses.

Chapter 4: Results

The purpose of this quantitative study was to understand how educational engagement and selected antecedents of engagement vary between first-year Hispanic and non-Hispanic students who persist in or leave community colleges in Idaho. The research questions focused on identifying how selected antecedents of educational engagement are correlated with students' persistence. In addition, the research questions sought to identify if there were variations in that persistence rate between Hispanic and non-Hispanic students. To answer the research questions, I divided the students into four categories: Hispanic persisters, non-Hispanic persisters, Hispanic non-persisters, and non-Hispanic non-persisters. The purpose of the first research question was to identify whether Hispanic and non-Hispanic students persisted at different rates. The remaining research questions related to how selected antecedents of educational engagement differed between the four groups of students. These antecedents fall into four conceptual categories: structural-student, structural-university, psychosocial-university, and psychosocial-relationships.

This chapter presents the results of the data analysis I conducted to address the research questions and test the hypotheses. In this chapter, I describe my data analysis tools and rationale as well as my data collection process. Then I present the demographic characteristics of my sample as they relate to ethnicity and the results of the data analysis.

Data Collection

I collected data for this study from September 2017 through February 2018. I initially organized the data in an Excel database and coded for further input into SPSS. I

used stratified sampling to obtain a sample that represented adequate response rates from Hispanic and non-Hispanic first-year students. I obtained the data from survey results collected from first-semester students across three Idaho community colleges. I distributed the survey via an online platform (Survey Monkey) to students enrolled in the course, Introduction to Communications, through survey invitations sent to respective instructors at each of the three colleges initially in September 2017 following the 10-day census drop date. I sent a follow-up invitation to those same instructors in October 2017. In February 2018, I verified persistence (re-enrollment in spring 2018 semester) with the respective school registrars. A total of 134 participants across all three colleges completed the survey. I excluded two participants due to missing data. Of the total participants in the survey, 102 or 77% self-identified as non-Hispanic while 30 or 23% self-identified as Hispanic.

While the response rate was low, it was representative of the ethnic breakout of first-semester students in Idaho community colleges as identified in Table 6.

Table 6

Ethnic Breakout of Idaho Community Colleges by Percentage, 2018

	White	Hispanic	Other	Unreported
Western Idaho CC (28,825 Students)	19,025 (66%)	5,188 (18%)	2,306 (8%)	2,306 (8%)
Southern Idaho CC (7021 Students)	5,056 (72%)	1,334 (19%)	491 (7%)	140 (2%)
Northern Idaho CC (6049 Students)	4,961 (82%)	241 (4%)	362 (6%)	485 (8%)

I used quantitative data to test the associated hypotheses for the research questions (RQs) in this study and grouped those research questions based on the independent variables of persistence and classification as well as the conceptual categories of structural-student, structural-university, psychosocial-university, and psychosocial-relationships as detailed in Kahu's framework of student engagement outlined in Chapter Two.

Results

To answer the research questions and hypothesis, I conducted a variety of statistical analysis tests.

RQ1. Do Hispanic students and non-Hispanic students disproportionately persist from first to the second semester?

H_{01} : The proportion of first-to-second semester persistence is not significantly different between Hispanic students and non-Hispanic students.

H_{a1} : The proportion of first-to-second semester persistence is significantly different between Hispanic students and non-Hispanic students.

Of the 132 survey respondents, 30 self-identified as of Hispanic and 132 as non-Hispanic. 25 of Hispanic students (83%) and 81 of non-Hispanic students (61%) persisted from first to the second semester. To determine if Hispanic students and non-Hispanic students disproportionately persist from first to the second semester I conducted an ANOVA to evaluate the relationship between ethnicity and the persistence of students from first to the second semester. The independent variable, ethnicity, included two levels, Hispanic and non-Hispanic. The dependent variable was persistence. While the

Hispanic respondents in this survey persisted at a higher percentage than their non-Hispanic counterparts, the analysis determined that ethnicity and persistence were not significantly related failing to reject the null hypothesis, $F(1, 130) = .222, p = .86$.

RQ2. Do structural-student attributes (parent education levels and family incomes) differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{02} : Parental education levels and family incomes do not significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a2} : Parental education levels and/or family incomes significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ 2 sought to understand the relationship between parental education and family income between persisters and non-persisters based on the dependent variables of ethnicity and persistence. I conducted a one-way multivariate analysis of variance (MANOVA) to determine the association of selected conceptual category structural-student categories (father education, mother education, and family income) with persistence. In the initial analysis of the impact on persistence alone, no differences were found among the categories of Father Education and Income, however, there was a statistically significant difference in the category of Mother Education based on persistence, $F(7, 124) = 1.9, p = .019$. The multivariate η^2 was strong, .94. I conducted an analysis of variances (ANOVA) on the dependent variables as follow-up tests to the

MANOVA. Using the Bonferroni method, I tested the ANOVA at the .05 level. This result failed to support any significant difference between Father Education and Income and persistence when tested independently, but when analyzed for ethnicity was statistically significant for Father Education, ($F(7, 124) = 2.0, p = .05, \eta^2 = .10$), and Income ($F(7, 124) = 2.1, p = .04, \eta^2 = .10$) supported the hypothesis of a positive relationship between these factors and ethnicity and persistence as indicated in Table 7 below. For this research question I found that Mother Education was a significant factor impacting persistence for both Hispanic and non-Hispanic students. Father Education and Income, however, was determined to be a significant factor impacting persistence only in relation to Hispanic first-year students.

Table 7

F Value, df, Significance, and η^2 for Independent Variables of Parental Education and Family Income with Dependent Variables

	F Value	Df	Significance	η^2
Father Education	2.0	7,124	.05	.10
Mother Education	2.7	7,124	.01	.13
Family Income	2.1	7,124	.04	.10

Note. Dependent variables: ethnicity and persistence

RQ3. Does participation in a first-semester experience (FSE) type course differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{03} : Participation in FSE does not significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a3} : Participation in FSE does significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

RQ3 measured the impact of participation in a First-Semester Experience (FSE) program between persisters and non-persisters based on their stated ethnicity. To determine if participation in an FSE differed between the four groups, I conducted a one-way MANOVA. The IV was FSE/No FSE and the DVs were ethnicity of students (Hispanic/Non-Hispanic) and persistence (persisted/did not persist), Participation in an FSE was not significantly related, $F(2, 129) = .346, p = .708$; Wilks $\Lambda = .995$, partial $\eta^2 = .005$.). The null hypothesis was retained. For this research question, I found that participation in a first-semester experience program did not statistically differ between the four groups. Results for the rate of persistence by ethnicity and FSE completion is reported in Table 8 below.

Table 8

Results for Rates of Persistence by Ethnicity and FSE

	FSE	No FSE
Hispanic Persist	22	3
Hispanic Non-Persist	3	2
Non-Hispanic Persist	70	10
Non-Hispanic Non-Persist	19	2

RQ4. Does the perception that the university encourages interaction between students and participation in extracurricular activities differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{04} : The perception that the university encourages interaction between students and participation in extracurricular activities does not significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a4} : The perception that the university encourages interaction between students and participation in extracurricular activities does differ significantly between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

I conducted a MANOVA to determine the effects of the conceptual category structural-university. This category measured the impact of the extent of the institution's encouragement of students to interact informally with students from different economic, social, and racial or ethnic backgrounds outside of class as well as the institution's encouragement of students to attend campus events. No significant differences were identified in the category of institutional encouragement for interaction ($F(2, 124) = .631, p = .787$; Wilks $\Lambda = .951$, partial $\eta^2 = .025$) and institutional encouragement for attendance at campus activities ($F(2, 124) = .573, p = .835$; Wilks $\Lambda = .955$, partial $\eta^2 = .023$). This result did not show any significant difference between the variables of persistence and ethnicity and the null hypothesis was retained. For this research question, I found the perception of university encouragement of interaction between students and participation in extracurricular activities does not differ statistically between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-

persisters). Using the Likert scale of extent asked within the survey (0 = none, 3 = some, 5 = always), Table 9 illustrates the average response rate of each of the four groups.

Table 9

Average Response Rate for Structural-University Variables

	Contact	Activities
Hispanic Persisters	2.20	2.16
Hispanic Non-Persisters	1.40	1.60
Non-Hispanic Persisters	2.16	2.60
Non-Hispanic Non-Persisters	1.90	2.09

RQ5. Does level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H_{05} : The level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction does not significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a5} : The level of engagement, expressed as full-time enrollment, living on campus, and participation in online-only instruction significantly differs between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

I conducted a MANOVA to determine the effects of the conceptual category psychosocial-university specifically for the independent variables of enrollment, instructional modality, and on/off campus living. No significant differences were

identified in all three variables. Instructional modality, which sought to understand the impact of students taking all of their courses online was insignificant ($F(2, 129) = .880, p = .417$; Wilks $\Lambda = .987$, partial $\eta^2 = .013$) as was the variable of living on campus ($F(2, 129) = 2.42, p = .92$; Wilks $\Lambda = .964$, partial $\eta^2 = .036$). A student's enrollment of full time versus part time was also not significant ($F(2, 129) = 1.69, p = .188$; Wilks $\Lambda = .974$, partial $\eta^2 = .026$). This result failed to show any significant difference between the variable of persistence and ethnicity, failing to reject the null hypothesis. For this research question, I found the level of engagement, expressed as full-time employment, living on campus, and participation in online-only instruction does not differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters). Table 10 displays the descriptive statistics for each of these selected variables.

Table 10

Descriptive Statistics for Psychosocial-University

	On Campus/ Off Campus	Online Only/ Not Online Only	Full-Time/ Part-Time
Hispanic	0/30	2/28	27/3
Non-Hispanic	8/84	10/92	82/20

RQ6. Does participation in co-curricular activities, service learning, field or clinical experiences or volunteering differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₆: Participation in co-curricular activities, service learning, field or clinical experiences or volunteering does not significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a6}: Participation in co-curricular activities, service learning, field or clinical experiences or volunteering does significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

I conducted a MANOVA to determine the effects of the conceptual category psychosocial-university specifically for the independent variables of participation in school-sponsored/managed co-curricular activities, participation in community-based educational projects, participation in field experiences or clinical assignments, and participation in community service or volunteer work. No significant differences were identified in all four variables. Hours spent per week participating in school-sponsored/managed co-curricular activities such as school organizations, student government, or intramural sports was not significant ($F(10, 250) = .740, p = .686$; Wilks $\Lambda = .942$, partial $\eta^2 = .029$) as was the variable of participation in a community-based educational project such as service-learning ($F(10, 248) = .1.67, p = .087$; Wilks $\Lambda = .878$, partial $\eta^2 = .063$). A student's participation in a field experience or clinical assignment was not significantly related to persistence ($F(10, 250) = .1.13, p = .336$; Wilks $\Lambda = .915$, partial $\eta^2 = .043$), as was a student's participation in community service or volunteer work ($F(10, 250) = .678, p = .744$; Wilks $\Lambda = .948$, partial $\eta^2 = .026$). For

this research question, I found the level of engagement, expressed as participation in school-sponsored/managed co-curricular activities, community-based educational projects, field experience, clinical assignments, and community service or volunteer work does not differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters). Using a Likert scale, Table 11 illustrates the average response rate of each of the four groups (0 = none, 3 = some, 5 = always).

Table 11

Average Response Rate for Psychosocial-University Variables

	Co-Curricular Events	Community- Based Projects	Field Experience	Volunteer
Hispanic Persisters	.64	0.72	0.52	0.56
Hispanic Non-Persisters	0.2	1.2	0.2	1
Non-Hispanic Persisters	.56	0.79	0.48	0.62
Non-Hispanic Non-Persisters	.95	0.4	0.57	0.66

RQ7. Does the quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters)?

H₀₇: The quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class does not significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

H_{a7} : The quality of relationships between students, faculty, and administrators and the amount of time interacting with faculty members outside of regularly scheduled class does significantly differ between the four groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters).

I conducted a MANOVA to determine the effects of the conceptual category psychosocial-relationships specifically for the independent variables of the quality of relationships with other students, faculty, and administrators/staff as well as the frequency of faculty interaction outside of regularly scheduled class. I identified no significant differences in three of the four variables. The quality of relationships with faculty ($F(10, 246) = .984, p = .458$; Wilks $\Lambda = .925$, partial $\eta^2 = .038$), the quality of relationships with administration ($F(10, 240) = 1.60, p = .105$; Wilks $\Lambda = .878$, partial $\eta^2 = .063$), and the final independent variable of the frequency of faculty interaction outside of regularly scheduled class was not significant ($F(10, 250) = .157, p = .115$; Wilks $\Lambda = .885$, partial $\eta^2 = .059$). The quality of relationships with other students was determined to be significant ($F(10, 246) = 1.87, p = .05$; Wilks $\Lambda = .864$, partial $\eta^2 = .071$). Post hoc testing indicated that there was no statistically significant difference between Hispanic and non-Hispanic students.

For this research question, I found the level of engagement, expressed as the quality of relationships between students, did not differ among the four groups and was a significant factor impacting persistence for Hispanic and non-Hispanic students. Quality of relationships with faculty, and administrators/staff as well as the frequency of faculty interaction outside of regularly scheduled class, however, did not differ between the four

groups (Hispanic persisters and non-persisters, non-Hispanic persisters and non-persisters). Using the Likert scale of extent asked within the survey (0 = poor, 6 = excellent), Table 12 illustrates the average response rate of each of the four groups.

Table 12

Average Response Rate for Psychosocial-Relationship Variables

	Faculty Relationships	Administrative/Staff Relationships	Peer Relationships
Hispanic Persisters	4.29	4.08	3.8
Hispanic Non-Persisters	3.6	4	3.4
Non-Hispanic Persisters	4.15	3.92	3.88
Non-Hispanic Non-Persisters	4.47	3.47	4.1

Conclusion

Chapter 4 provides a detailed account of the data analysis used in this study. It includes the sample, data collection tools, and statistical procedures used to address the research questions. I collected quantitative data after receiving approval from the Walden University IRB and the respective colleges. I analyzed the quantitative data to understand how selected antecedents of educational engagement differed between groups of first-year Hispanic and non-Hispanic students who persisted in and left community colleges in Idaho. These antecedents, derived from the theoretical framework discussed in earlier chapters, included structural-student, structural-university, psychosocial-university, and psychosocial-relationship attributes.

The quantitative analysis failed to demonstrate significant differences in the majority of these attributes between groups. The first research question asked if Hispanic students and non-Hispanic students disproportionately persisted from first to the second semester. Persistence did not differ significantly between Hispanics and non-Hispanics. Of the total respondents, 83% of Hispanics persisted in comparison with 61% of non-Hispanics. This is a measurable difference regarding persistence but is not statistically significant due to the small sample size.

The second research question asked if there was a difference in levels of parental education and family income between persisters and non-persisters based on the dependent variables of ethnicity and persistence. I identified significant differences within these variables as they related specifically to ethnicity as illustrated in Table 4. This table illustrates that Hispanic persisters had significantly higher mother and father education levels and came from families with higher incomes compared to Hispanic non-persisters. The persistence of non-Hispanic first-year students was not impacted by the education level of the father or the family income level, but, similarly to Hispanic first-year students were more likely to persist if their mother had a higher level of education.

The third research question asked if participation in a First-Semester Experience program increased persistence for all first semester students and if there was a difference between Hispanic and non-Hispanic students. I found the participation in a First-Semester Experience to not be a factor in persistence for either group of students. Table 5 illustrates that participation in a First-Semester Experience program was not significantly related to persistence for either group.

The fourth research question asked if the perception of university encouragement of interaction between students and participation in extracurricular activities increased persistence for all first semester students and if there was a difference between Hispanic and non-Hispanic students. I found that encouragement of student interaction and participation in extracurricular activities was not a factor in persistence for either group of students. Of note was the low average perception of encouragement for all students in relation to the selected variables. Non-persisters in both groups ranked the perception of encouragement of interaction and involvement at a lower rate than persisters in both groups with Hispanic non-persisters providing the lowest average ranking. Similarly, the fifth research question asked about the same increase in persistence as it related to the status of enrollment (full-time versus part-time), living on campus versus living off campus and participation in online-only instruction. I found none of these variables to be a factor in increased persistence for either Hispanic or non-Hispanic first-year students. The sixth research question asked if participation in co-curricular activities, service learning, field or clinical experiences or volunteering was a factor for either group in relation to persistence. I found the completion of these activities and experiences did not result in increased persistence for either group of students.

The seventh and final research question asked if the quality of relationships between students, faculty, and administrators increased persistence for all respondents and if that increase differed between Hispanic and non-Hispanic students. The results indicate that while the relationship between first-semester students, other students, and faculty and administrators outside of regularly scheduled class did not impact the rate of

persistence for either group independently, when factoring in the ethnicity of the respondents, the impact on persistence was positive for Hispanic and non-Hispanic students as it related to the quality of relationships between other students. I found that the development of quality relationships with other students results in higher persistence rates for Hispanic and non-Hispanic first-year students. The quality of relationships with faculty and administrators outside of regularly scheduled class did not result in increased persistence for either group of students.

In Chapter 5, I further explain and analyze the results of this study. I indicate and discuss limitations on generalizability and make recommendations for further research. I conclude Chapter 5 with the implications of this study for social change as well as a final summary.

Chapter 5: Discussion, Conclusion, and Recommendations

The purpose of this quantitative study was to understand how educational engagement and selected antecedents of engagement vary between first-year Hispanic and non-Hispanic students who persist in or leave community colleges in Idaho. The research questions focused on identifying how selected antecedents of educational engagement are correlated with students' persistence. In addition, the research questions sought to identify if there were variations in that persistence rate between Hispanic and non-Hispanic students. Using a holistic approach that examined selected variables of engagement, this research sought to explain educational persistence as a function of these variables and to understand how it differed between Hispanic first-year students and their non-Hispanic counterparts. This research was conducted in order to better understand the factors contributing to the significant gap in postsecondary educational attainment between Hispanics and non-Hispanics in Idaho and to identify methods and opportunities for improved student outcomes and increased rates of college completion for all students.

Summary of Key Findings

I collected data for this survey via an online platform (Survey Monkey) distributed to first-semester students across three Idaho community colleges from September 2017 through February 2018. A total of 134 participants across all three colleges completed the survey with two participants being excluded due to missing data.

University activities designed to engage first-semester students, such as the first-semester experience course, activities designed to encourage informal interaction between students, and encouragement of students to attend campus events, were not

associated with persistence in this study. In addition, there was no evidence that supported the contention that campus living on or off campus, participation in school-sponsored/managed co-curricular activities, participation in community-based educational projects, field service, or educational modality were related to persistence.

This research indicated that a higher level of maternal education was associated with increased rates of persistence for both Hispanic and non-Hispanic first-semester students. In regards to higher levels of paternal education and family income, these factors were connected with increased persistence specifically for Hispanic first-semester students but not their non-Hispanic counterparts

Variables relating to relationships during the first semester in college included the quality of relationships with faculty and administrators as well as the frequency of interaction with faculty outside of regularly scheduled class. These variables were not associated with persistence in this study. The quality of relationships of students with other students, however, was related to increased persistence for all students.

Interpretations of the Findings

Researchers define student engagement in different ways, depending on the scope of their research and the associated theoretical dimensions. The basis for this study was the conceptual framework of student engagement in higher education as developed by Kahu (2013). This framework consists of five separate yet interrelated elements: structural influences, psychosocial factors, proximal consequences, distal consequences, and finally the state of engagement itself. When viewing these elements influencing engagement from a holistic perspective and then understanding them in relationship to

the context of sociocultural influences, Kahu (2013) posited that her framework provides an opportunity to identify “targeted interventions aimed at increasing student engagement” (p. 766). Drawing on her framework, this research focused on one distal consequence of engagement – retention – and conceptualized the state of engagement as arising from an inter-relationship of institutional and student characteristics present in Idaho community colleges and posited that each of these characteristics exert structural or psychosocial influences that are antecedents to student engagement and, ultimately, persistence.

However, the findings of this study failed to provide evidence to support this framework. Nor did it confirm many of the findings from prior research, described in Chapter 2, probably due to low survey response rate (which will be further discussed later in this chapter in the Limitations of the Study section). Both foundational and current research in the area of student engagement in higher education has clearly identified factors related to increased engagement and persistence, including first-year seminars and experiences, courses with service or community-based learning, and internships and experiential learning (Kuh, 2008; Bers & Younger, 2014; Acavedo-Gil & Zerquera, 2016). The results of this study did not determine many of these same variables to be statistically significant regarding persistence for first-semester students in Idaho community colleges. Two statistical tests were performed (MANOVA and ANOVA for post-hoc testing) in relation to the data on student engagement and persistence. These tests failed to demonstrate significant differences between the four groups that were the focus of this study in terms of in the majority of antecedents to engagement derived from

the theoretical framework. However, there were significant differences between groups in two sets of antecedents: structural-student and psychosocial-relationship factors.

Higher levels of maternal education had a positive effect on persistence for both Hispanic and non-Hispanic first semester students. Analysis of father education and family income indicated that Hispanic persisters had significantly higher father education levels and came from families with higher incomes as compared to Hispanic non-persisters. This relationship is supported within the literature on the subject of student engagement and persistence, which has historically found a positive correlation between increased parental education attainment and family income and enrollment/persistence (NCES, 2006; Bailey et al., 2004). These findings further confirm the relationship between these factors as specifically applied to minority students (Edman & Brazil, 2008; Quaye & Harper, 2015).

Both Hispanic and non-Hispanic first-semester students who reported a higher quality of relationships with other students were more likely to persist than students who reported lower quality of peer relationships. The literature on the subject of student engagement supports this finding in relationship to higher resilience and improved academic results for university-level students (Fernandez-Martinez et al., 2017) and overall achievement (Furer, Skinner & Pitzer, 2014).

Community colleges across Idaho, as well as colleges and universities across the United States, continually seek to understand how to increase persistence at their respective campuses. Literature and research have identified numerous factors and high impact practices related to increased student engagement and persistence to include on-

campus and off-campus programs and opportunities afforded by the college, instructional modality, first-semester experience courses and programs, and the importance of building quality relationships with instructors and administrators. This research, however, did not provide evidence of that due in large part to the small sample size. If this research had an increased sample size, I believe a positive effect would have been indicated.

This research did find that the education of parents and family income has a significant impact on increased persistence that is clearly indicated in the literature on the subject. This finding, however, does not provide a specific measure in which colleges can positively affect. The findings of this study that indicated an increased rate of persistence for students reporting a higher quality of relationships with other students does, however, provide tangible data and possibilities for Idaho community colleges. This study found that it is not the organized campus events both off and on-campus that increases persistence, rather it is the peer-to-peer relationships that are formed by students organically. Identifying ways to foster these relationships through non-formal opportunities, gathering areas, peer-to-peer interaction, and increased cohort education practices can increase the persistence of all first-semester students.

Limitations to Generalizability

Generalizability is the ability to apply research findings and conclusions from the sample population in a study to the larger population. The generalizability of this study was substantiated due to the variety of students across three Idaho community colleges who completed the survey. The actual number of participants was not large (132) which did negatively impact the generalizability of the study, however, the variety of

institutions from which participants came as well as accurate representation of the Hispanic student population in each of these colleges allows for statistical generalizations.

Limitations to Validity and Reliability

The methods for ensuring validity and reliability in this study were consistent with established research. Designed as a posttest-only control group by determining the survey responses of students who persisted from fall 2017 through spring 2018 allowed the measurement of the difference of the mean between the students who did persist and those who did not. Based on the assumption that the random sampling used in this survey is “the most adequate all-purpose assurance of lack of initial biases between groups” (Campbell & Stanley, 1963, p. 25), this survey design and outcome maintained strong internal and external reliability and validity.

Recommendations for Further Research

Through the course of the data collection areas worthy of further research and discussion were discovered. It would be beneficial to compare the results with a larger sample size to understand the impact of the selected antecedents on engagement from a wider perspective. It would be further informative to see how the survey results from this research would differ if applied to a 4-year university setting in Idaho rather than community colleges. As the lead faculty of a First Semester Experience program, I know that the first-semester is often one in which students are still exploring options and opportunities and finding a work-life-school balance. As such, longitudinal studies of students across their time in Idaho community colleges would be worthy of additional

exploration as students are provided increased opportunities and structured classroom time to engage in some of the practices examined in this research such as service learning and internships.

Implications

In Idaho, there is a significant difference between the educational attainment of Hispanics and to non-Hispanics. Positive social change that reduces this inequity entails not only understanding the origins and circumstance of disparities between these two groups but identifying methods and options for increasing rates of college completion for Hispanics. Some of these options are to develop best practices, implement formal and informal intervention programs, and increase student and institutional awareness. The ability to identify methods for increasing persistence has positive social and economic benefits for all involved including the students themselves, the educational institution and society as a whole.

Recommendations for higher education regarding student persistence based on data gathered from this study are: (a) continue to explore high impact practices and opportunities that encourage peer-to-peer development, including the use of cohorts for first semester students; and (b) identify places or activities on campus where students can interact informally.

Conclusion

Student engagement is broadly defined across multiple constructs and theoretical dimensions and the answer to how to increase that engagement is equally broad. The findings of this study do support existing research on the role of parent education levels,

family income, and peer-influence but the lack of significant findings across the remaining variables is due in large part to the small sample size. The timing of the survey may have also contributed to the findings in that first-semester students are still seeking to navigate the new college experience and develop a work-school-life balance. The structural influences of parental education and peer-support are already in place as a student begins college while the remaining factors influencing student engagement – relationships with teachers and support services, additional learning opportunities, participation in college activities, and a sense of belonging to the college are developed throughout the college experience. Research seeks to understand how to increase student engagement across multiple perspectives which speaks to the fact that it is not a “one size fits all” answer or approach. Kahu (2013) recognized that when she sought to understand engagement from a more holistic methodology and create a shared approach. Recognizing that there are multiple factors impacting student engagement and that these factors will differ from student to student speaks to the warning offered by Kahu (2013) in the susceptibility of viewing a student as “a member of a stereotyped, homogenous mass” (p. 766).

This research offers the opportunity to better understand the multitude of factors that relate to student engagement and increased persistence. It also provides a better understanding as to how those factors may differ depending upon a student’s race or ethnicity. Colleges in Idaho and across the United States are proactive in identifying methods designed to increase persistence and allocating resources to support these

initiatives. The findings of this research support the fact that in order to influence the maximum number of students, the strength of all these resources needs to be combined.

In June 2018, a study issued by The Education Trust, a Washington, D.C. based nonprofit focused on equity issues, reported that Idaho's Hispanic college graduation rates were the lowest in the nation as of 2016 (Richert, 2018). Only 12.7% of Idaho Hispanic adults held college degrees in comparison to 22.6% of Hispanic adults across the United States. Community colleges as well as 4-year universities across Idaho have sought to identify methods to reduce this gap, but increasing enrollment is only part of the bigger issue. This is recognized by members of the Idaho Commission on Hispanic Affairs who noted that "getting into college isn't the real problem for Idaho's Hispanic and Latino Students" (Foy, 2018, p. 1). Community college in Idaho recognize this need and are taking steps to develop a unique community specific to Hispanic first-year students to include the use of a robust mentoring program, future designation as Hispanic-serving institutions, and targeted grants and scholarships. Once Hispanic students enroll in college, methods need to be identified based on informed research and high impact practices that will increase their chances of successful persistence and, ultimately, improved retention and graduation.

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Appendix A: First-year Persistence Survey

1. Please list your student number as provided by your respective college:

2. What school do you attend currently?
 - College of Western Idaho
 - College of Southern Idaho
 - North Idaho College
3. Did you complete or are you currently enrolled in a First Semester Experience type introductory course as part of your first-year courses?
 - Yes
 - No
4. Are you currently enrolled in 12 or more semester credits (full-time)?
 - Yes
 - No
5. Do you live on campus during the school year?
 - Yes
 - No
6. About how many hours do you spend in a typical 7 day week participating in school sponsored/managed co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, campus clubs, etc)?
 - 0
 - 1-10
 - 11-15
 - 16-20
 - 21-25

- More than 25
7. To what extent does your institution encourage informal contact among students from different economic, social, and racial or ethnic backgrounds (i.e. outside of class)?
- None
 - Very little
 - Some
 - Quite a bit
 - Very much
 - Always
8. To what extent does your institution encourage attendance at campus activities (special speakers, cultural performances, athletic events, etc)?
- None
 - Very little
 - Some
 - Quite a bit
 - Very much
 - Always
9. In your experience at your institution during the current school year, about how often have you participated in a community-based educational project (e.g. service learning) as part of a regular course?
- None
 - Very little
 - Some
 - Quite a bit
 - Very much
 - Always

10. In your experience at your institution during the current school year, about how often have you participated in a field experience or clinical assignment as part of your institution?

- None
- Very little
- Some
- Quite a bit
- Very much
- Always

11. In your experience at your institution during the current school year, about how often have you participated in community service or volunteer work as part of your institution?

- None
- Very little
- Some
- Quite a bit
- Very much
- Always

12. How often do you interact with faculty members at your institution outside of regularly scheduled class?

- None
- Very little
- Some
- Quite a bit
- Very much
- Always

13. Are you taking all your college courses entirely on line?

- Yes
- No

On a scale from 1 to 6 with 1 representing poor to 6 representing excellent, please respond to the following questions:

14. What best represents the quality of your relationships with students at your institution?
15. What best represents the quality of your relationships with faculty members at your institution?
16. What best represents the quality of your relationships with administrative personnel and offices (i.e. student support, library, tutoring, etc.) at your institution?
17. What is the highest degree or level of school completed by your **father**? If currently enrolled, highest degree received.
 - Unsure
 - Did not finish high school
 - High school diploma/GED
 - Attended college but did not complete degree
 - Associate's degree (A.A, A.S., etc.)
 - Bachelor's degree (B.A., B.S., etc.)
 - Master's degree (M.A., M.S., etc.)
 - Doctoral or professional degree (Ph.D., J.D., M.D., etc.)
18. What is the highest degree or level of school completed by your **mother**? If currently enrolled, highest degree received.
 - Unsure
 - Did not finish high school
 - High school diploma/GED
 - Attended college but did not complete degree
 - Associate's degree (A.A, A.S., etc.)
 - Bachelor's degree (B.A., B.S., etc.)
 - Master's degree (M.A., M.S., etc.)

- Doctoral or professional degree (Ph.D., J.D., M.D., etc.)

19. What category best describes your annual household income?

- Unsure
- Less than \$25,000
- \$25,000 to \$29,999
- \$30,000 to \$39,999
- \$40,000 to \$49,999
- \$50,000 to \$59,999
- \$60,000 to \$69,999
- \$70,000 or more

20. Are you of Hispanic, Latino, or Spanish origin?

- Yes
- No

21. Please specify your sex

- Male
- Female

22. Do you plan on attending college in the next semester?

- Yes
- No
- Unsure

<https://www.surveymonkey.com/r/first-yearpersistence>

Appendix B: Categories, Dependent Variables, Type of Variable, Associated Survey

Question or Data Element, and Levels/Values

Categories	Dependent Variables (Engagement)	Type	Survey Question/Data Element
Psychosocial - Student	Plans to continue to attend college	Categorical	Do you plan on attending college in the next semester?
	Full-time enrollment	Categorical	Are you currently enrolled in 12 or more semester credits (full-time)?
	Living on campus	Categorical	Do you live on campus during the school year?
	Participation in a First Semester Experience Type program	Categorical	Did you participate in a First Semester Experience/Student Success type introductory course as part of your first-year courses?
	Hours spent participating in school sponsored/managed co-curricular events	Categorical	About how many hours do you spend in a typical 7-day week participating in school sponsored/managed co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, campus clubs, etc.)?
	Participation in a community-based educational program	Categorical	In your experience at your institution during the current school year, about how often have you participated in a community-based educational project (e.g. service learning) as part of a regular course?
	Participation in a field experience or clinical assignment	Categorical	In your experience at your institution during the current school year, about how often have you participated in a field experience or clinical assignment as part of your institution?
Participation in community service or volunteer work	Categorical	In your experience at your institution during the current school year, about how often have you participated in community service or volunteer work as part of your institution?	

	Course Modality	Categorical	Are you taking all your college courses entirely online?
Structural-University	Encouragement by IHE for informal contact with other students	Categorical	To what extent does your institution encourage informal contact among students from different economic, social, and racial or ethnic backgrounds (i.e. outside of class)?
	Encouragement by IHE for attendance at campus activities	Categorical	To what extent does your institution encourage attendance at campus activities (special speakers, cultural performances, athletic events, etc.)?
Structural-Student	Father Education Level	Categorical	What is the highest degree or level of school completed by your father?
	Mother Education Level	Categorical	What is the highest degree or level of school completed by your mother?

	Sex	Categorical	What is your sex?
	Household Income	Categorical	What category best describes your annual household income?
Psychosocial - Relationships	Quality of Relationships – Peers	Categorical	What best represents the quality of your relationships with students at your institution?
	Quality of Relationships – Faculty Members	Categorical	What best represents the quality of your relationships with faculty members at your institution?
	Quality of Relationships – administrative personnel and offices	Categorical	What best represents the quality of your relationships with administrative personnel and offices at your institution?
	Faculty Interaction	Categorical	How often do you interact with faculty members at your institution outside of regularly scheduled class?

Appendix C: National Survey of Student Engagement Item Usage Agreement



The College Student Report
Item Usage Agreement

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4) This Agreement expires on ~~December 15, 2016~~. October 30th, 2017

The undersigned hereby consent to the terms of this Agreement and confirm that they have all necessary authority to enter into this Agreement.

For The Trustees of Indiana University:

Alexander C. McCormick
Director
National Survey of Student Engagement

11/8/2016
Date

For Licensee:

Kimberly Johaneck
Student
Walden University

31 Oct 16
Date

For Licensee:

Dr. Andrew Thomas
Professor
Walden University

Nov. 3, 2016
Date