1-25-2018

Hispanic Student Perceptions of College Preparedness

Miranda De La Garza

HISPANIC STUDENT PERCEPTIONS OF COLLEGE PREPAREDNESS

A Thesis

by

MIRANDA INEZ DE LA GARZA

Submitted to Texas A&M International University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

DECEMBER 2015

Major Subject: Educational Administration

Hispanic Student Perceptions of College Readiness

HISPANIC STUDENT PERCEPTIONS OF COLLEGE PREPAREDNESS

A Thesis

by

MIRANDA INEZ DE LA GARZA

Submitted to Texas A&M International University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Approved as to style and content by:

Chair of Committee,	Dr. Maria Viloria
Committee Members,	Dr. Stephen Benigno
	Dr. Concepcion Hickey
	Dr. Alfredo Ramirez, Jr.
Head of Department,	Dr. Randel Brown

December 2015

Major Subject: Educational Administration

DEDICATION

This thesis is dedicated to my better half, my husband, Luis "Wayo" de la Garza, for his unending love and support throughout this process. During our five years of marriage, he has always inspired me to put all I have into every endeavor. I would also like to acknowledge my wonderful children, Christian, 5, and Brooke, one and a half, for the joy and love they bring to Wayo and me every day.

I also thank my parents, William and Shirley Kimble, for the family values, integrity, strength, and faith they instilled in me throughout my up-bringing. My mother, as a former teacher and later a Medicaid specialist, taught me the value of caring for others and the importance of education in improving the world. My father, through his service to others as an attorney for Legal Aid, instilled in me the desire to serve and uplift those in need. Sadly, my father suffered a stroke four years ago that ended his legal career. Nevertheless, all who received his services continue to see improvements in the quality of their lives. These lessons inspired me to become a teacher, and later an administrator, in order to prepare children and young people to contribute to our global society.

A special thank you goes to my younger siblings, Rachel Peralta and David Kimble, have been my friends and counselors throughout my life. We have had many ups and downs over the years, but, with each other's love and support, we see the light at the end of every tunnel.

ABSTRACT

Hispanic Student Perceptions of College Readiness: December 2015

Miranda Inez de la Garza, Master of Science, Texas A & M International University

Chair of Committee: Dr. Maria Lourdes Viloria

The educational community deems college and career readiness a crucial issue facing our society. According to recent literature, Texas trails many other states in the United States in college retention and graduation rates. This phenomenon occurs due to inadequate preparation of high school students for post-secondary education. The educational prospects of the Hispanic community in Texas may continue to suffer if Hispanic students graduate from high school ill prepared for college coursework. Evidence of this problem is apparent in the overrepresentation of Hispanic students in developmental education programs in colleges and universities. Recent studies reveal a lack of alignment between the learning activities undergone during high school and the learning activities encountered in college, which causes students to enter college underprepared for success in credit-bearing coursework.

However, the passage of House Bill One, "The Advancement of College Readiness in Curriculum", in 2005 increased the accountability of Texas High Schools for the college preparedness of students. In 2008, the Texas Higher Education Coordinating Board unanimously approved a set of college and career readiness standards to incorporate into the Texas Essential Knowledge and Skills (TEKS). Furthermore, the recently implemented State of Texas Assessments of Academic Readiness (STAAR) exams involve more higher-order thinking and an increased level of academic rigor compared to previous Texas state exams. In addition, Texas high school students must pass certain STAAR End-of-Course exams in

order to be considered college-ready. The researcher seeks to determine whether or not an increase in college preparedness has occurred following the inception of the College and Career Readiness Standards and the STAAR program.

According to recent literature, three main factors contributed to inadequate preparation for college in the past: lack of higher-order thinking activities, differing writing requirements from high school to college, and the fact that the study habits required for success in college were often neglected in high school coursework. The researcher analyzed data related to these three factors. The purpose of this study was to determine the correlation between the learning activities from the senior year of high school and the learning activities from the freshman year of college.

ACKNOWLEDGEMENTS

A special thanks goes to Dr. Catheryn Weitman, for her supportive, but candid feedback throughout this project. I would also like to thank my committee, Dr. Maria Viloria, Dr. Stephen Benigno, Dr. Alfredo Ramirez, Jr., and Dr. Concepcion Hickey for your valuable teaching during my coursework and for your guidance throughout this study.

An additional thank you goes to the National Survey for Student Engagement (NSSE) for providing my survey instrument.

TABLE OF CONTENTS

LIST OF FIGURES

Page

CHAPTER I:
INTRODUCTION

College preparedness continues to come to the forefront of education policy. When the 79th Texas Legislature passed House Bill One, "The Advancement of College Readiness in Curriculum", in 2005, public school teachers and administrators became more accountable for the college preparedness of Texas high school students (Educational Policy Improvement Center, 2009; Yamamura, Martinez & Saenz, 2010). The Texas legislature sought to ensure that Texas public schools would provide instructional programs that would teach students the increasingly complex skills required for 21st century university coursework (Educational Policy Improvement Center, 2009). The passage of this bill required the Texas Education Agency (TEA) to develop the College and Career Readiness Standards (CCRS) in language arts, math, social studies, and science. These standards outline the knowledge and skills in each discipline that high school students need to master in order to succeed in post-secondary coursework and in the workforce (EPIC, 2009). Vertical teams of secondary and post-secondary educators drafted these standards, which the Texas Higher Education Coordinating Board approved unanimously in 2008. The incorporation of the college readiness standards into the Texas Essential Knowledge and Skills (TEKS) serves the purpose of increasing the number of college ready high school graduates (EPIC, 2009).

Since many Texas high schools now align their instructional programs to the college readiness standards, an increasing number of Texas students now enter institutions of higher learning. However, despite the passage of House Bill One, recent studies show that Texas trails many other states in the preparation of students for college (EPIC, 2009). Currently, the six-year graduation rate from four-year public universities in Texas is 50.2%, ranking Texas 34th nationally (College Measures, 2015). Furthermore, the college freshmen retention rate in Texas is 74.7%, placing Texas 39th in the nation (College Measures, 2015). The researcher predicts that this trend may yield bleak implications for the workforce in Texas. Currently, about 80% of all jobs require some type of post-secondary education (College Measures, 2015). Texas may see a shortage of qualified professionals in the near future

---

This thesis follows the style of *Educational Administration Quarterly*.

if Texas only retains 74.7% of its college freshmen and only 50.2% of its college students earn four-year degrees. Texas educators face an urgent need to prepare secondary students for higher education and ultimately for the workforce.

In addition, stakeholders within predominantly Hispanic educational communities regard college readiness as paramount to the advancement of their population within the society of the United States (American College Test, 2014). All stakeholders within the focus group of Yamamura's 2010 study claimed a strong responsibility for the college preparedness of high school students within their South Texas communities (Yamamura, Martinez, & Saenz, 2010). This focus group consisted of superintendents, teachers, counselors, community leaders, parents, and high school students. Many of the participants involved in the study believed that increasing the number of Hispanic college graduates was important to the advancement of Hispanics within American society (Yamamura, Martinez, and Saenz, 2010).

Due to the continuous increase in the Hispanic population in the United States, the advancement of Hispanics with our society is crucial. According to data from the United States Census Bureau, Hispanics comprised 17.4% of the U.S. population in 2014. Experts project that this percentage will increase to 28% by 2060 (United States Census Bureau, 2015). Furthermore, Hispanics comprised 38% of the total population in Texas in 2014 (ACT, 2014). By 2050, this percentage is predicted to grow to 49.8% (Warner, 2014). Therefore, college preparedness in the Hispanic population is crucial due to the fact that close to 50% of our workforce in Texas may consist of persons of Hispanic origin (Warner, 2014). Reports on the state of college readiness for Hispanic students exhibit increased college matriculation rates for this population (ACT, 2014). However, much growth needs to occur in college attendance and completion. For instance, 20% of Hispanic adults held an associate's degree or higher in 2013, compared to 36% of all adults nationwide (ACT, 2014). Many educators believe this occurs because college remedial programs, in which minority students are overrepresented, function as gatekeepers that prevent minority students from enrolling in upper-division coursework and limit their choice of majors and occupations (Bettinger and Long, 2005).

How have Hispanic-serving Texas public high schools incorporated the college readiness standards into their instructional programs? Some public high schools now offer

more Advanced Placement (AP) courses. Moreover, some schools engage in partnerships with local universities in order to form early college high schools, where students may earn up to two years of college credit during high school. One such institution, the Laredo Early College High School, is housed at Texas A&M International University (Laredo Independent School District, 2015). In addition, the Hidalgo Early College High School, located in Hidalgo, TX, requires all students to take AP courses and dual credit courses while in high school (Educate Texas, 2015). Furthermore, the Texas Education Code (TEC) 28.009 requires each school district in Texas to implement a program that provides opportunities for students to earn a minimum of 12 hours of college credit while completing their high school diploma (TEA, 2015). Students may meet this requirement not only through dual credit and AP courses, but also through International Baccalaureate and advanced technical credit courses (TEA, 2015).

Nevertheless, researchers argue that even AP courses and dual credit courses will not adequately prepare students to pursue a specific college major. These scholars believe that AP and dual credit courses provide students with a strong foundation in content knowledge sans the 21st century skills such as critical thinking, collaborative learning, and problem-solving required in most college coursework and in many professions (College Measures, 2015). In addition, most traditional high school coursework does not require the time management skills and study habits required for success in college (BCSSE, 2012). The researcher sought to determine if the learning activities used in Hispanic-serving public high schools incorporated the cognitive skills required at the university level.

Statement of the Problem

Hundreds of thousands of high school students graduate each year and consider themselves prepared for college coursework. Unfortunately, many students learn otherwise upon matriculation. Many students in Texas and nationwide enter college poorly prepared for the rigor of college coursework. Fifty percent of college students seeking an associate's degree and 20% of those seeking a bachelor's degree are required to complete remedial courses before they can enroll in credit-bearing courses (Complete College America, 2011). According to the National Conference of State Legislatures, 41% of Hispanic college students nationwide require remediation, as opposed to only 31% of Caucasian students (National Conference of State Legislatures, 2015). Furthermore, many Hispanic students in

developmental education programs also come from low socioeconomic backgrounds (National Conference of State Legislatures, 2015). Why does this phenomenon occur? While many developmental students of all ethnicities come from low socioeconomic backgrounds, this alone is not a strong determinant of a student's need for developmental education. Inadequate preparation during high school, however, strongly impacts student success in college (Nora and Crisp, 2012). A high percentage of students from low socioeconomic backgrounds require remediation due to the fact that public schools in their neighborhoods often provide inadequate instructional programs and employ less skillful teachers (Nora and Crisp, 2012).

Three main factors contribute to inadequate college preparation: lower order thinking activities in high school courses, differing writing requirements between high school and college courses, and the neglect of study skills and time management skills at the high school level (McCarthy & Kuh, 2006).

The first factor involves the cognitive skills commonly used in high school coursework as opposed to those used in college coursework. In the recent past, high school coursework typically provided a broad set of core knowledge and basic skills. The educational practices in many high school courses included mostly lower-order thinking activities such as factual recall, defining terms, and multiple choice assignments and tests (Amrein-Beardsley, 2009). Also, in an effort to raise test scores, teachers spent a large amount of instructional time dispensing factual knowledge and test-taking strategies (Amrein-Beardsley, 2009). Conversely, many college freshmen reported that they rarely engaged in activities involving multiple choice questions and activities requiring only factual recall (McCarthy and Kuh, 2006). In fact, students nationwide reported engaging in far more higher-order thinking activities and critical thinking lessons during their freshman year of college than they did as high school seniors (National Survey of Student Engagement, 2014). Due to the lack of critical thinking required in high school coursework in recent years, many students entered college ill-prepared for activities that required these higher level cognitive skills.

The second factor relates to the differing writing requirements between high school and college coursework. According to data from the Beginning College Survey of Student Engagement (BCSSE), only 30% of students surveyed in 2012 wrote three or more papers

five pages in length or longer during their high school career. In college, students are often required to write many more papers five pages in length or longer (BCSSE, 2012). In addition, most high school writing instruction in recent years revolved around preparation for standardized writing exams (National Writing Project, 2011). Prompts on these exams were often designed for non-authentic audiences. Consequently, many high school students do not write well-reasoned papers containing information from valid and reliable sources, as will be required in their college courses (National Writing Project, 2011).

The third factor that hinders the college success of many students is the differing study habits and time management required for success in high school as opposed to college. McCarthy and Kuh's 2006 study showed that nearly half of the high school students surveyed studied less than three hours per week. In contrast, the average college freshman studies for 13 to 14 hours per week (McCarthy and Kuh, 2006). In addition, the study habits required for college coursework are missing from the set of cognitive strategies promoted in high school learning (McCarthy and Kuh, 2006). For example, many college freshmen reported that they routinely look for key information in assigned readings, review their notes immediately after class, and summarize what they learned in each session (NSSE, 2014).

However, due to the Texas College and Career Readiness Standards now imbedded in the TEKS and the more rigorous State of Texas Assessment of Academic Readiness (STAAR) testing program, these unfortunate trends may change. For example, STAAR exams at all levels incorporate higher-order thinking (TEA, 2015). The STAAR End-of Course (EOC) exam for Biology I asks students to "analyze and evaluate the evidence regarding the formation of simple organic molecules" (p.8). Moreover, the writing portion of the English III EOC test calls for the composition of expository and procedural texts that "communicate ideas and information to specific audiences for specific purposes" (p.8). Student texts should also contain "information on multiple relevant perspectives and a consideration of the validity, reliability, and relevance of primary and secondary sources" (p.8).

Background and Need

Upon passage of the No Child Left Behind (NCLB) Act of 2001, schools began implementing instructional practices intended to raise test scores (Amrein-Beardsley, 2009). Due to the focus on standardized test preparation, many high school teachers neglected to

incorporate the higher-order thinking, writing strategies, and teaching of study habits necessary to prepare their students for college courses (Amrein-Beardsley, 2009). Recent literature examines the discrepancy between the requirements of high school coursework versus the requirements of college coursework. For instance, many high school students lack skills in supporting arguments with credible evidence and considering multiple solutions to problems (Barnes, Slate, and Le-Bouef, 2010). In college coursework, students will be expected to do both on a regular basis (NSSE, 2014). Furthermore, research from the National Writing Project (NWP) explores the issues created by tailoring writing instruction to preparation for state writing exams. In their 2011 report, the NWP authors recommended that writing instructors design activities to help students write effectively for authentic audiences. These activities should involve these three components: creativity, rhetorical knowledge, and application to new ideas. (National Writing Project, 2011).

As stated in McCarthy and Kuh's 2006 research, the large discrepancy between the necessary study time for success in high school courses and the needed time to excel in college courses continues to hinder the college preparedness of many students (McCarthy and Kuh, 2006). Furthermore, in the experience of the researcher, the majority of high school students do not utilize the aforementioned study methods found in the 2014 NSSE report. The researcher examined data from the Beginning College Survey of Student Engagement (BCSSE) and the National Survey of Student Engagement (NSSE) in order to determine the occurrence and effectiveness of teaching high school students study habits such as looking for key information in assigned readings, reviewing notes immediately after class, and summarizing what they learned in each session.

Purpose of the Study

Analysis of data from the BCSSE and the NSSE surveys given to students from two Texas Universities that serve large Hispanic populations was the purpose of this study. Data from the BCSSE survey yielded information regarding the learning activities undergone in high school. This data from the BCSSE also assessed students' expectations of the requirements for success in college.

Quantitative data from the BCSSE surveys, completed by entering college freshmen, and data from the NSSE surveys, done by students who completed their first year of college, were analyzed. The researcher examined the alignment, or lack thereof, of the learning

activities undergone by the participants during their senior year of high school and those undergone by college freshmen.

Research Questions

Data provided by the surveyed students will answer the following questions:

1.) Which high school learning activities yield a positive correlation to college learning activities?
2.) Which high school study habits prepare students for the study habits necessary for success in college coursework?

Significance to the Field

This study will contribute research to the education field regarding Hispanic students' perceptions of their level of college preparedness. The researcher determined the learning activities that prove to increase college readiness. Moreover, the researcher seeks to provide a guide for educators to utilize in their selection of learning activities.

Definitions

College-Prepared- equipped with the knowledge and skills deemed essential for success in university, college, and community college programs (Glossary of Education Reform, 2015)

Dual Credit Courses- courses in which students earn high school and college credit simultaneously

Early College High Schools- schools where students earn both a high school diploma and college credit toward a bachelor's degree (Mayes and Trevino, 2006)

Learning Activities- methods used to develop abilities of the mind, such as critical thinking, problem solving, and advanced writing

Limitations

First and foremost, the findings of this study were based on self-reported data. The accuracy of this data depended upon the memories of the students. In the event that students did not possess clear recollections of the learning activities from their senior year of high school or from their first year of college, they may have provided vague accounts of their educational experiences. Furthermore, the students surveyed provided subjective responses to many of the questions, such as "often" or "very often". Possibly, the method in which some students defined "sometimes" or "often", for instance, differed from that of other

students. In contrast, some of the questions asked for numerical responses, such as “11 to 15”, or “16 to 20” papers during the senior year of high school (BCSSE, 2014) and the freshman year of college (NSSE, 2015). Numerical responses yielded a more accurate record of the frequency of writing papers than responses such as “often”, or “very often”.

In addition, the students from both institutions provided data only on the frequency of various learning activities, writing activities, and study habits. The BCSSE and NSSE surveys asked no questions regarding the quality of the work the high teachers and college professors required. The researcher could make no comparisons between the quality of the work done during the senior year of high school and the freshman year of college.

Moreover, the researcher obtained a spreadsheet containing the individual responses of those students from Institution Number One that completed both the BCSSE 2012 survey and the NSSE 2013 survey. Consequently, the researcher calculated the Pearson Correlation Coefficients and paired-sample T-Test correlations for selected data sets from the high school responses and the first year of college responses. The correlation coefficients increased the accuracy of the determined correlation between the learning activities, writing activities and study habits from the senior year of high school and those from the freshman year of college. However, the researcher only had access to the reports from the BCSSE 2014 and NSSE 2015 surveys from Institution Number Two. Therefore, the correlation coefficients could not be calculated for Institution Number Two. The researcher could only compare the percentages of each response between the two surveys.

Furthermore, some institutions of higher learning require the students to complete the BCSSE and NSSE surveys, while others make participation voluntary. When participation is required, researchers may obtain a more representative sample from the entire entering freshman class and the exiting freshman class. Conversely, in the experience of the researcher, when participation is voluntary, researchers collect data from the more conscientious students, most of whom are the higher performing students. In this case, data may be skewed in the direction of the students who consider themselves prepared for college work. Furthermore, some students at Institution Number One elected not to respond to some of the questions on both the BCSSE and the NSSE. Therefore, the researcher analyzed smaller data samples for some of the questions.

In addition, the time frame allotted for a thesis did not enable the researcher to track the academic progress of the same group of students throughout their senior year of high school and their freshman year of college. Therefore, the researcher did not analyze data in the form of course grades and test scores from their senior year of high school and from their freshman year of college.

Ethical Considerations

In order conduct to this study in an ethical manner, the researcher used previously reported data that was anonymous and confidential. The individual responses from Institution Number One did not contain student names or identification numbers. Therefore, minimal risk of a breach of confidentiality was present. Moreover, this study posed little to no risk to participants since the researcher utilized previously reported data and studied no human subjects.

Conclusion

In conclusion, the researcher analyzed quantitative data from surveys completed by entering college freshmen and exiting college freshmen from two universities in Texas that serve large Hispanic populations in order to determine the learning activities that contribute to Hispanic students' college preparedness. Upon completion of the study, the researcher determined which activities should be promoted in order to improve college preparation. Recommendations for further research were also explored due to the limitations of this study.

CHAPTER II:
LITERATURE REVIEW

Introduction

College-ready students are "equipped with the knowledge and skills deemed essential for success in university, college, and community college programs" (Glossary of Education Reform, 2015). Every year, thousands of high school seniors across Texas apply to colleges and universities. Once accepted, they choose which college they feel will best serve their educational needs. Meanwhile, these students rely on their high school teachers, counselors, and administrators to facilitate their thorough preparation for college coursework. However, many students faced a startling revelation upon matriculation to college in the recent past.

According to Conley's 2012 article from the Educational Policy Improvement Center (EPIC) website, one of the four keys to college readiness is as follows: "*Key cognitive strategies* describes the ways of thinking that are necessary for college-level work. They include formulating hypotheses and developing problem-solving strategies, identifying sources and collecting information, analyzing and evaluating findings or conflicting viewpoints, organizing and constructing work products in a variety of formats, and monitoring and confirming the precision and accuracy of all work produced." (p.6)

However, according to some of the literature, most high school coursework consists of little or none of these key cognitive strategies (Conley, 2012). The discrepancies between high school and college work is the focus of this literature review. Which public secondary school learning activities lead to this discrepancy? Data from the Beginning College Survey of Student Engagement (BCSSE) and the National Survey of Student Engagement (NSSE) from two universities that serve large Hispanic populations was analyzed. Once this endeavor was accomplished, the researcher recommended solutions to the inadequate college preparation in many secondary schools. These solutions included the promotion of learning activities that incorporate the key cognitive strategies that are conducive to student success in higher education (Gigloitti, 2012).

Differing Learning Activities

Conley (2007) explores the gap between the high school experiences of students and the requirements of college courses. For example, college professors expect students to engage in a variety of higher level thinking processes such as solving problems without clear-

cut solutions, making inferences, interpreting results of research and experiments, analyzing and evaluating information from conflicting sources, and making arguments supported by credible evidence (National Research Council, 2002). For example, according to nationwide data from the 2014 National Survey of Student Engagement (NSSE), 31% of first-year college students from the top 50% of American colleges and universities reported that they "very often" engaged in higher order thinking activities such as "forming a new idea or understanding from various pieces of information" (NSSE, 2014, p.30). Many universities across the United States administer the NSSE annually in order to collect data from first-year college students and college seniors. Students are asked if they engage in a particular activity "very often", "often", "sometimes", or "never".

The Beginning College Survey of Student Engagement (BCSSE) assessed incoming college freshmen at Auburn University in the summer of 2012. Data showed that a large majority of students considered themselves academically prepared for many higher level activities required for their future college courses. For example, 90% stated that they could think critically and analytically. According to recent literature, high school students and college students differed greatly in their definitions of critical and analytical thinking. Many high school students believed that their personal beliefs sufficiently justified their arguments in class discussions and in their research papers (Angus & Mirel, 1999; Oakes, 2005). Few of these students knew how to support their arguments with evidence from credible research, and when their assertions were challenged, they felt personally attacked (Barnes, Slate, and Le-Bouef, 2010). Conversely, 42% of first-year college students from the top 50% of American institutions surveyed by the 2014 NSSE reported that they "examined the strengths and weaknesses of [their] own views on an issue or topic" "often" during their first year of college (NSSE, 2014, p.31). Twenty-four percent of the same group of college students said that they did this "very often" (NSSE, 2014).

Furthermore, many high school students also have trouble considering multiple solutions to problems (Barnes, Slate, and Le-Bouef, 2010). When evaluating documents with opposing viewpoints, these same students seek correct explanations in lieu of examining authors' motivations for presenting the given arguments (Angus & Mirel, 1999; Oakes, 2005). In recent years, critical thinking and self-regulation skills, required to be successful in

college coursework, are often neglected in secondary schools in favor of instruction geared toward raising test scores (Barnes, Slate, and Le-Bouef, 2010).

However, educators in Texas, including one interviewed by the Laredo Morning times in 2011, hoped to see this trend change due to the higher-order thinking required to meet the new Early Childhood through Twelfth Grade (EC-12) Texas Essential Knowledge and Skills (TEKS) standards. Success on the more rigorous State of Texas Assessment of Academic Readiness (STAAR) exam requires the attainment (Georgiou, 2011). Texas education officials created the new STAAR test in order to achieve two main goals:

1.) to make Texas a top-ten state in college completion, and

2.) "to increase the demographic representation of college completers" (Lopez, 2012, p. 109).

Texas public schools fully implemented the STAAR during the 2011-2012 academic year, following the passage of House Bill 3 in 2009. Under the STAAR system, the state adopted a college ready curriculum aligned to higher education. Only students who pass the Algebra II and English III End-of-Course (EOC) exams are deemed college ready. In fact, a Recommended or Distinguished diploma may be obtained only by passing the two aforementioned exams (Lopez, 2012).

Differing Writing Requirements

Many college professors expect to receive well-reasoned compositions comprised of evidence from credible sources that are a minimum of five pages in length (NSSE, 2006). According to data from the 2006 High School Survey of Student Engagement (HSSSE) survey, 70% of high school students wrote at least three papers more than five pages in length throughout their high school career. By 2012, that number decreased to 30% (BCSSE, 2012). However, 86% of Auburn University's 2012 incoming freshman class believed that they could write clearly and effectively. In contrast, researchers found that many high school students do not write well-reasoned papers containing evidence from credible sources (Barnes, Slate, and Le-Bouef, 2010).

In addition, the formulaic writing required on many state writing assessments differs greatly from the writing required in many college courses. According to the National Writing Project (2011), many of the writing prompts on past state assessments are were formulated for non-authentic audiences. Conversely, college writing requires "rhetorical

knowledge, [or] the ability to analyze and act on understandings of audiences, purposes, and contexts in creating and comprehending texts" (p.1). College writing also requires "critical thinking, [or] the ability to analyze a situation or text and make thoughtful decisions based on that analysis through writing, reading, and research" (p.1), in order to determine which sources to include in a composition. Unfortunately, even in the recent past, much of high school writing instruction was geared toward standardized assessment instruments that do not reinforce the curiosity and creativity required for college writing (National Writing Project, 2011). However, the STAAR English III (EOC) exam now requires student texts written for specific audiences. Furthermore, students must also examine the relevance and validity of their chosen sources (TEA, 2015). "The focus on writing and applying information to larger problems and new ideas is much more beneficial than simply memorizing facts for an exam," stated a first-year arts management major from the State University of New York at Empire State College (NSSE, 2014, p. 30).

Collaborative Learning

In addition, university professors expect college freshmen to work collaboratively in groups in order to conduct research and solve complex problems similar to the problems encountered by practitioners in their chosen field (NSSE, 2006). Thirty-eight percent of college freshmen surveyed in 2014 said that they "often" collaborated with fellow students on assignments and projects. Twenty-one percent of these students did this "very often" (NSSE, 2014). This finding coincides with data from the fall of 2012 incoming freshman class from Auburn University, 34% of whom worked with fellow students outside of class in order to prepare projects and assignments (BCSSE, 2012).

In order to foster this collaboration, college freshmen should possess the capacity to communicate effectively with individuals from diverse backgrounds and cultures (Conley, 2012). Data from NSSE shows that the majority of college freshmen possess this important skill. Fifty percent of college freshmen from the top 50% of universities in 2014 noted that they "very often" engaged in discussions with students of a different race or ethnicity than their own. Twenty-nine percent more students said that they did so "often" (NSSE, 2014). Furthermore, 46% of freshman students "very often" discussed various topics with students possessing different religious beliefs from their own. Twenty-nine percent more students did so "often" (NSSE, 2014).

Another essential skill for success in college is self-reliant learning. College students need to recognize when they encounter problems in their work and take the initiative to seek assistance from their professors and fellow students in order to produce projects and papers of quality. Once students begin their professional careers, they will often collaborate with their colleagues and employers in a similar fashion (Conley, 2007).

Studying and Time Management

McCarthy and Kuh's 2006 study found that the cognitive repertoire of many high school students lacked study skills, time management, and other academic strategies. Survey data from the 2006 HSSSE survey showed that 90% of high school students said that they intended to go on to postsecondary institutions. However, 47% of the respondents studied three hours or less per week, while the typical college freshman studied for 13 or 14 hours per week (McCarthy and Kuh, 2006). Not surprisingly, 73% of the incoming freshman class at Auburn in 2012 anticipated that they would have trouble budgeting their time due to the increased amount of studying that college would require (BCSSE, 2012). An even more troubling statistic shows that 66% of the high school students who studied for three or fewer hours per week received grades of mostly A's and B's in high school (BCSSE, 2012). This fact illustrates the significantly lower amount of study time required to succeed in high school courses as opposed to the amount of study time needed for success in college courses.

One of the reasons for the large increase in the weekly study time from the senior year of high school to the freshman year of college is the fact that college students are often expected to read about eight times the amount during one post-secondary academic year than what was required in one year of high school (Standards for Success, 2003). However, data from the BCSSE 2012 report from Auburn University shows a recent increase in the required reading during high school. According to the information provided, 67% of the incoming freshmen were assigned "very much" reading from textbooks and other course materials during their senior year of high school. In addition, Auburn's freshman class studied an average of 9.3 hours per week during high school, or approximately one and one-third hours per night (BCSSE, 2012). The same participants anticipated that they would spend 16.8 hours per week studying during their first year at Auburn. The 2012 cohort of college freshmen surveyed reported that the average freshman at Auburn studied for 15.1 hours per

week (BCSSE, 2012), which was a small increase from the aforementioned data from McCarthy and Kuh's 2006 study.

Ironically, data from the 2005 NSSE demonstrates that first year college students reported that they did less studying and writing than they expected to do once they began college coursework (NSSE, 2005). Sixty percent of students expected to study for 15 hours a week or more. However, only 40% of the students surveyed spent that much time studying (NSSE, 2005). On the average, students spent between two and six hours less per week studying than they thought they would. In addition, students that used half of the preparation time that their professors felt was necessary to succeed expected to earn A's and B's in their college courses. In fact, 30% of students reported that they did just enough work outside of class to get by (NSSE, 2005).

Effects of Increased Accountability

Some researchers state that the increase in accountability in public high schools increased college readiness rates. A study conducted by Greene and Winters (2005) showed that 25% of students were considered college-ready in 1991. By 2002, this percentage increased to 34%. However, data from the American College Test (ACT) (2009) showed that only 23% of students who took the ACT exam attained a college-ready score in English, math, reading, and science (Barnes, Slate, and Le-Bouef, 2010). In 2010, this percentage increased to only 24% (ACT, Inc. 2010).

Despite the stringent accountability imposed by the No Child Left Behind (NCLB) Act of 2001, little improvement in college preparedness occurred (Amrein-Beardsley, 2009). For example, due to the pressure to raise test scores, many teachers acted merely as dispensers of knowledge that filled the vessels of student minds rather than engaging students in critical thinking and problem solving (Amrein-Beardsley, 2009). In order to prepare students for college work and careers, teachers need to model the metacognitive strategies necessary for students to become autonomous thinkers (Barnes, Slate, & Le-Bouef, 2010). Instead, many teachers "dumbed down" their instruction and taught the knowledge and strategies necessary for students to pass state exams (Barnes, Slate, & Le-Bouef, 2010). For example, in the researcher's teaching experience, most reading instruction consists of merely locating information in each passage instead of reading and analyzing the passages in their entireties.

Moreover, at the time of the passage of NCLB, 50% of college freshmen were enrolled in remedial classes upon matriculation into college (U.S. Department of Education, 2008b). As of 2006, an alarming 40% of college students nationwide still needed remedial coursework (Attewell, Lavin, Domina, and Levey, 2006). Furthermore, according to Complete College America, 50% of students studying for an associate degree and 20% of those seeking a bachelor's degree, including many who graduated from high school with a grade point average of 3.0 or higher, were required to take remedial or developmental courses in 2011. Many of them never moved on to credit-bearing courses, let alone graduation (Complete College America, 2011).

Proposed Solutions

In 2009, Achieve, Inc. released the report entitled *Closing the Expectation Gap 2009: Fourth Annual 50 State Progress Report on the Alignment of High School Policies with the Demands of College and Careers.* This report stated that in order to "help states raise academic standards, improve assessment, and strengthen accountability to prepare all young people for postsecondary education and training, careers, and citizenship" (Achieve, Inc., 2009 p. 1.), schools needed to align their instruction with that of universities. This report appeared to be effective in helping American High Schools increase academic preparedness in terms of content knowledge (Barnes, Slate, and Le-Bouef, 2010). However, many schools failed to prepare students for college because they neglected to teach students the study habits, self-regulation, reading and writing strategies, and critical reasoning necessary for success in higher education (Barnes, Slate, and Le-Bouef, 2010).

Conley (2007) offered several possible methods of closing the gap between high school and college learning standards in order to minimize the need for developmental coursework among college students. Research shows that two of these methods are currently in practice. First, he suggests aligning high school instruction with college instruction by partnering with local colleges (Conley, 2003). More high schools now offer dual credit to high school juniors and seniors. For example, the Laredo Early College High School, in partnership with Texas A & M International University, offers a dual credit program on the university's campus (Laredo Independent School District, 2015). In addition, Hidalgo High School, located in the Rio Grande Valley, recently became Hidalgo Early College High School. Hidalgo ECHS requires all students to take Advanced Placement (AP) courses in

order to prepare for college coursework (Hidalgo Independent School District, 2015). Partnerships with local colleges will be discussed in depth below.

The second method that Conley suggested is the development of college readiness standards, such as the Texas College and Career Readiness Standards recently incorporated into the (TEKS). Several groups, such as the Standards for Success Project, developed sets of readiness standards that are accessible online for any school to use as a reference in order to prepare their students for college. The standards outline the knowledge, skills, and habits of mind that are vital to success in higher learning (Conley, 2007).

Third, high schools could ensure alignment of high school curriculum to that of the college curriculum by implementing an external review process of syllabi for junior level and senior level high school courses (Conley, 2007). During this process, teachers would develop syllabi according to the state college readiness standards. Moreover, the process of developing syllabi can bring teachers within the school together in order to analyze how one course fits into the other courses within and across departments (Conley, 2007). For example, beginning in 2006, Burlington High School distributed Teacher Expectation Handouts to students at the beginning of each year. These handouts are tailored to a template designed by the faculty in order to analyze coursework and increase the rigor of instruction (Conley, 2007).

Fourth, Conley (2007) suggests implementing senior seminars in order to give students a college-like learning experience while still using high school level material. These seminars should incorporate key issues within each discipline and explore them in depth. Furthermore, these seminars would be paced at the rate of a college course and instructors would offer the candid feedback typical of university level instruction. The senior seminars would also teach the cognitive skills necessary for success in college, including interpretation, critical reasoning, problem solving, accuracy, and the performance of analytic research (Conley, 2007).

Finally, another important way to prepare students to be more college-ready is to improve students' writing skills (Conley, 2007). Assigning many papers five pages in length or longer in a variety of genres would prepare students for the writing assignments that they can expect in college (Conley, 2007). Conley suggests asking students to edit and revise

these papers several times instead of using the standard practice of submitting them only once (Conley, 2007).

Partnerships with Universities

The Glasscock School of Continuing Studies at Rice University founded a department of teacher professional development in 1994. The new department trained (AP) and pre-AP teachers to provide the academic rigor that junior high and high school students need in order to succeed in college. In 2005, Rice University began training International Baccalaureate teachers. Furthermore, Rice University recently expanded their program to include training for school administrators, counselors, and secondary students (Gigliotti, 2012). The faculty at what is now called the Center for College Readiness believe that a rigorous instructional program delivered by well-trained teachers increases the probability that a student will earn a college degree. This factor contributes to college preparedness more than parent education level, family income, or race/ethnicity (Adelman 1999, 2006).

The Center for College Readiness collaborates with many schools and districts to provide four main programs to improve college preparation. Students who meet the Rice University admission criteria may enroll in the summer school program Rice for High School Students. Qualifying high school juniors and seniors may choose from over 20 for-credit courses in English, math, and science. The College Readiness Summit provides participating educators with the tools to build a college-going culture, close achievement gaps, provide mentorship and leadership for students and fellow educators, and provide college readiness strategies. In addition, the College and Career Counseling Workshop trains school counselors to guide high school students through the high school course selection process, the college admissions process, and provide other tools to ensure college and career success for all students. The C3: Content, College, and Careers program provides high school students enrichment courses in communication skills, exploring the college admission process, and exploring careers in the sciences and social sciences (Gigliotti, 2012).

Furthermore, the Utah County Academy of Sciences (UCAS), located in Orem, Utah, offers a culturally sensitive environment that provides dual credit for Hispanic students (Clifford & Mayes, 2006). Utah Valley State College (UVSC) houses UCAS. This institution seeks to prepare Hispanic students and other minorities for success at four-year colleges by preventing the "cooling down effect", or the lowering of one's educational and

professional goals, that many students of color encounter when they enroll in junior colleges. Clifford and Mays believe that instead of spring-boarding students on to four-year universities, the culturally insensitive curricula of many junior colleges reduces or eliminates the academic aspirations of students from minority backgrounds (Clifford & Mays, 2006). For this reason, UCAS employs culturally savvy teachers that foster an environment of respect for each student's culture of origin (Clifford & Mays, 2006).

Summer Bridge Programs

In recent years**,** several colleges and universities established summer bridge programs that provide a five-week program of developmental instruction to underprepared high school graduates. The Texas Higher Education Coordinating Board (THECB) provides support to universities in order to facilitate developmental instruction in reading, mathematics, and writing (Barnett, Bork, Mayer, Pretlow, Washington, & Weiss, 2012). Barnett and associates evaluated eight sites in Texas, two open-admissions universities and six community colleges, in order to determine the effectiveness of these programs in reducing the need for developmental coursework in college. The researchers studied a group of students that participated in the bridge program and a control group of students that were eligible to utilize summer services at the colleges other than the bridge program. The researchers tracked the outcomes of the two groups for two academic years.

The findings of Barnett's 2012 study indicate that summer bridge programs generally yield no strong effects on college performance. For example, a significant difference in college credits earned did not occur. Students in the bridge programs earned an average of 19.4 credits, while the control group earned 19.9 credits after two years (Barnett, et. al., 2012). Students in the bridge programs did complete their first college math and writing courses at a higher rate than the control group. However, after two years, the differences in their performance was not statistically significant. Based on these findings, short-term interventions have minimal impact on student outcomes.

Conclusion

In conclusion, despite the efforts of state and federal officials and educators to increase academic rigor and college preparedness, many of our secondary schools fell short of their goal to ensure that our high school students graduate with the self-regulation and metacognitive skills necessary for college (McCarthy & Kuh, 2006). The researcher sought

to determine if the implementation of the Texas College and Career Readiness Standards (CCRS) yielded an increase in the college preparedness of Hispanic students in Texas. Moreover, multi-year and longitudinal studies on the effects of the STAAR test on college preparedness should be conducted in order to evaluate the success of the STAAR program in helping Texas meet its goal of increasing college preparedness. Furthermore, researchers need to collect additional data regarding the effectiveness of the partnerships with colleges and universities, summer programs, and professional development programs. Such research will assist Texas educators, administrators, and education officials in taking the appropriate measures to ensure that students in Texas public high schools receive the college preparatory education that they deserve.

CHAPTER III:
METHODOLOGY

Introduction

Quantitative research calls for researchers to "eliminate their biases, remain emotionally detached and uninvolved with the objects of study and test or empirically justify their stated hypotheses" (Johnson and Onwuegbuzie, 2004, p.14). The researcher chose a quantitative study to answer questions regarding college preparedness. The data provided an authentic source of information on learning activities, writing activities, and study habits during the senior year of high school and during the first year of college coursework.

In order to study student perceptions of college preparedness, the researcher examined previously reported data from the Beginning College Survey of Student Engagement (BCSSE) from entering college freshmen at two four-year universities. Seventy-four percent of the students who completed the BCSSE survey at Institution Number One also completed the National Survey of Student Engagement (NSSE). Furthermore, Institution Number One produced a combined BCSSE-NSSE report for 2012-2013. However, Institution Number 2 produced separate reports for the BCSSE 2014 and the NSSE 2015.

The following two research questions will be addressed in this study:

1.) Which high school learning activities yield a positive correlation to college learning activities?
2.) Which high school study habits prepare students for the study habits necessary for success in college coursework?

The researcher utilized the concept of paradigm relativism, or "the use of whatever philosophical and/or methodological approach [that] works for the particular research problem under study" (Tashakkori & Tedlie, 2008, p.9). In order to answer the aforementioned questions, the researcher analyzed and compared data from the BCSSE, provided by students who were about to begin college work, to the information from the NSSE, which is provided by students who had completed one year of college coursework. Entering freshmen answered questions regarding the learning activities undergone in high school and questions about their expectations of college coursework. Moreover, the students who completed the NSSE survey provided information regarding the learning activities in

which they engaged during their first year of college. By comparing the sets of data from the BCSSE to the data sets from the NSSE surveys, the researcher may assess the effectiveness of the learning activities in high schools in preparing students for college.

Quantitative research tells us "if this, then this", regarding a particular phenomenon. The researcher sought to demonstrate that high schools will better prepare students for college work if they provide certain learning activities at a similar frequency to that of freshman year of college. Furthermore, has the increased rigor of the State of Texas Assessment of Academic Readiness (STAAR) program led to an increase in the higher-order thinking activities and the writing requirements for Texas high school students? If the answer to this question is "yes", then the findings may demonstrate a high level of college preparedness in the students from the two institutions. If the answer is "no", then the researcher may recommend an increase during the senior year of high school in the learning activities that prove to prepare students for college. Furthermore, the researcher will study data regarding the study habits required for high school students versus those required for the freshman year of college.

Prior to commencing this study, the researcher formed these two hypotheses:

1.) The increased rigor of the Texas Essential Knowledge and Skills (TEKS) and the STAAR testing program facilitated a positive correlation between the higher-order thinking activities and the writing requirements for high school seniors and those required for college freshmen.
2.) A significant difference still exists between the study habits required for success in high school coursework and those required for success in college courses.

Setting and Participants

The researcher conducted this study by analyzing data from the BCSSE and NSSE reports from two universities located near the Texas/Mexico border. Both of these institutions serve a large Hispanic population. The majority of the student population at Institution Number One was female at the time of the BCSSE 2012 survey, at a rate of 57%. Forty-three percent of the student population was male (Texas A & M International University, 2015). Figure 3.1 shows the percentage of each gender that completed the BCSSE and the NSSE survey. The percentages of males and females, 43% and 57% respectively, that completed the BCSSE survey, required during freshmen orientation, were

consistent with the general student population (BCSSE-NSSE, 2012-2013). However, an increased majority of females, 68%, also completed the NSSE survey, which is done voluntarily. Only 32% of those who elected to complete the NSSE were male (BCSSE-NSSE, 2012-2013).

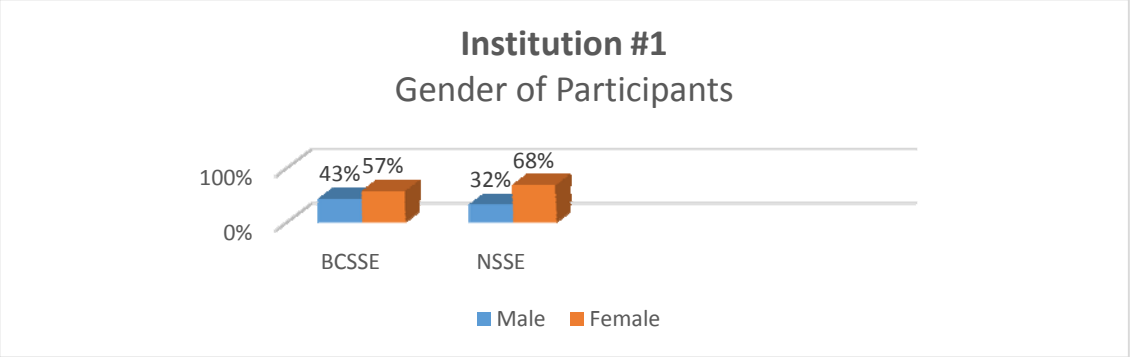

Figure 3.1

Students at Institution Number Two participated in the BCSSE and NSSE surveys on a voluntary basis. The females dominate the student body of Institution Number Two as well. Fifty-eight percent of the general student population is female and 42% is male (Texas A & M- Corpus Christi, 2015). As shown in Figure 3.2, 63% of the respondents that chose to contribute to educational research through these student engagement surveys were female, while only 37% were male (BCSSE, 2014).

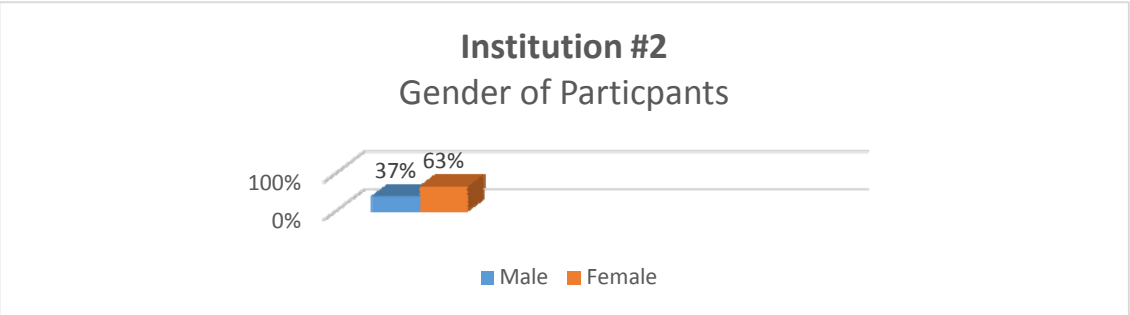

Figure 3.2

Figure 3.2 shows the racial demographics of both institutions. Institution Number One serves a student population of 89% Hispanic students, along with 2% Caucasians, 1% African Americans, 1% Asians, 0% American Indians, and 7% that preferred not to disclose their ethnic group (BCSSE, 2012). Institution Number Two serves a significant percentage of Hispanic students, at a rate of 42%. However, the remainder of the student population comprises more diversity, with 41% Caucasians, 9% African Americans, 4% Asians, 2% American Indians, and 2% that preferred not to respond (BCSSE, 2014).

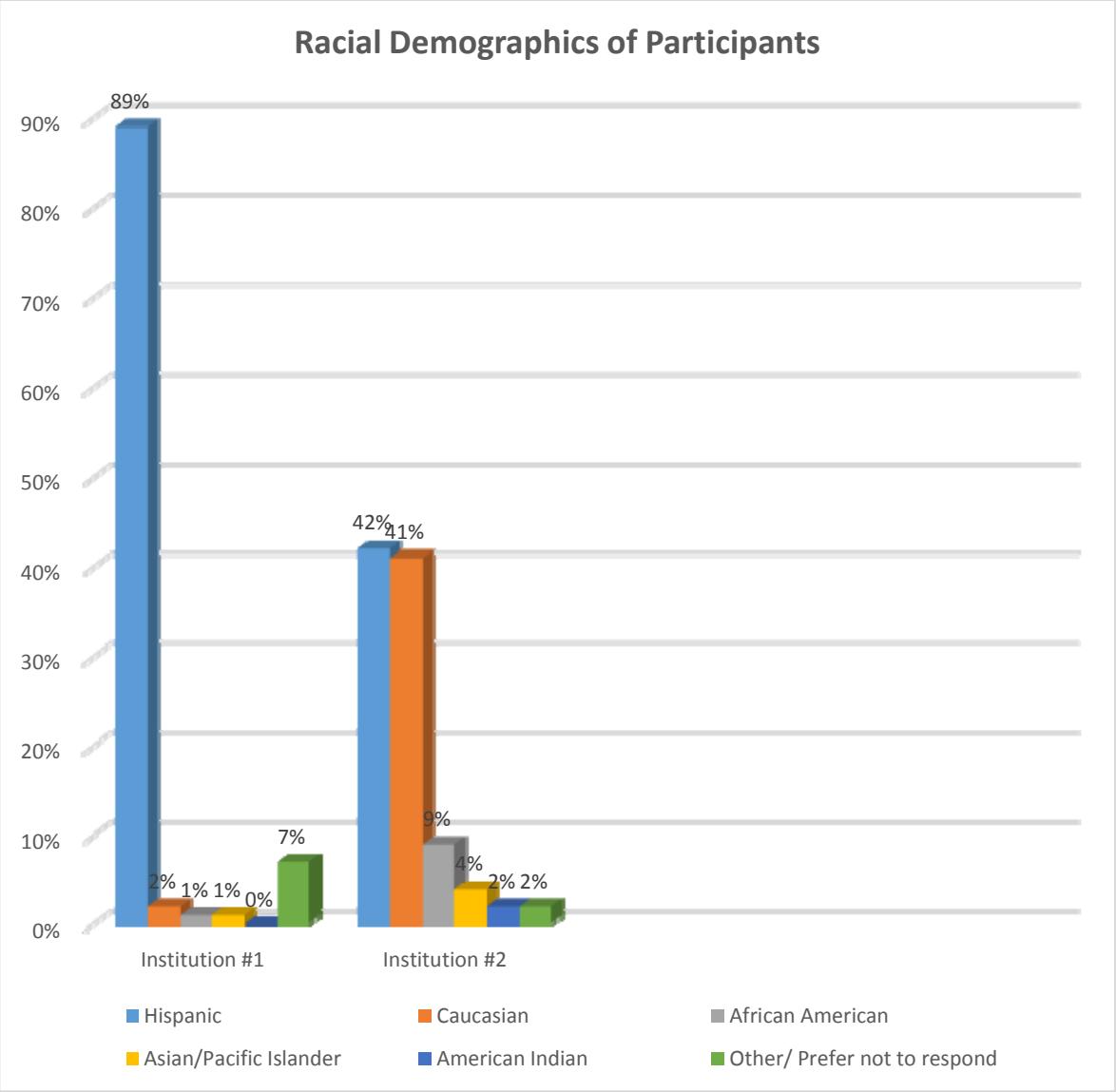

Figure 3.3

Figure 3.4 demonstrates the high rate of students from Institution Number One that completed at least one Advanced Placement (AP) course during their high school career. A total of 85% of students took at least one AP course, and a total of 57% took three or more AP courses. Notably, the mode answer, or the most frequently given answer, was five AP courses or more, at a rate of 32% (BCSSE, 2012). Furthermore, Figure 3.4 also shows that a small majority of the respondents, or 55% completed at least one college credit course while in high school. Forty-five percent took no college credit courses during high school. The most common number of college courses completed was four, at a rate of 18% (BCSSE, 2012).

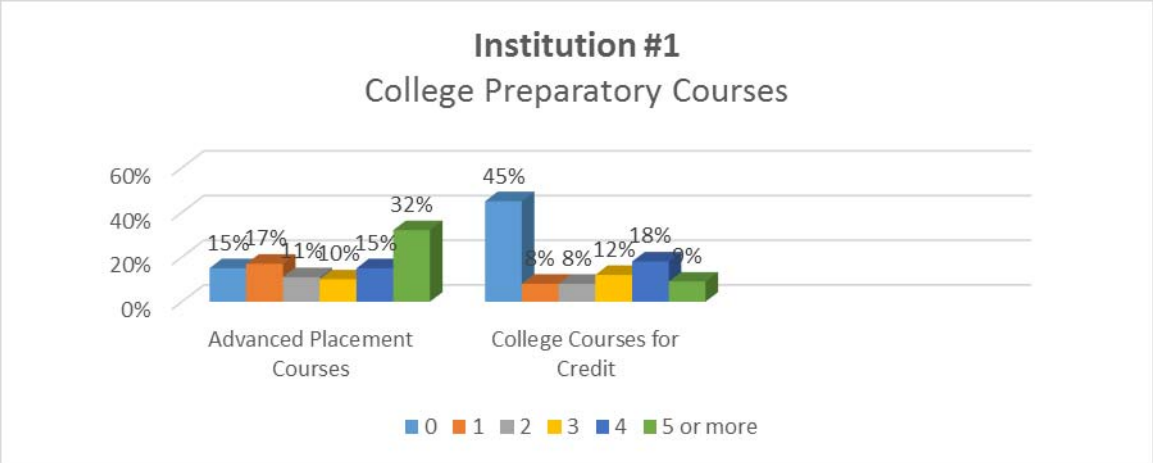

Figure 3.4

Students from Institution Number Two provided more detailed responses regarding AP courses and college credit courses, as seen in Figure 3.5. Nevertheless, the data from Institution Number Two depicts some consistent trends to that of Institution Number One. For example, a total of 73% of students at Institution Number Two took at least one AP course during their senior year of high school (BCSSE, 2014), similar to the 85% that did so at Institution Number One (BCSSE, 2012). Furthermore, the same percentage from both institutions, 28%, took one or two AP courses. In addition 32% took five or more AP courses (BCSSE, 2012), similar to the 35% at Institution Number One that took five or more

(BCSSE, 2014). However, a higher percentage of the students at Institution Number One took three or four AP courses, at a rate of 25%, than the students at Institution Number Two, 19% of whom took three or four AP courses (BCSSE, 2014).

Another similarity between Institution Number One and Number Two lies in the number of college credit courses the students completed during high school. For instance, a total of 53% of students at Institution Number Two took at least one college credit course (BCSSE, 2014), which was consistent with the 55% that did so at Institution Number One (BCSSE, 2012). Also, 47% of the respondents from Institution Number Two completed no college credit courses (BCSSE, 2014), like the 45% at Institution Number One (BCSSE, 2012). Unlike Institution Number One, the most common number of college courses taken during high school at Institution Number Two was one or two courses, at a rate of 28% (BCSSE, 2014), whereas the most common number of college courses for students at Institution Number One was four, at a rate of 18%. Sixteen percent of students at Institution Number One took only one or two college courses (BCSSE, 2012). However, a similar percentage of students at Institution Number Two, 10%, completed more than five college courses during high school (BCSSE, 2014) as did 9% of the students at Institution Number One (BCSSE, 2012).

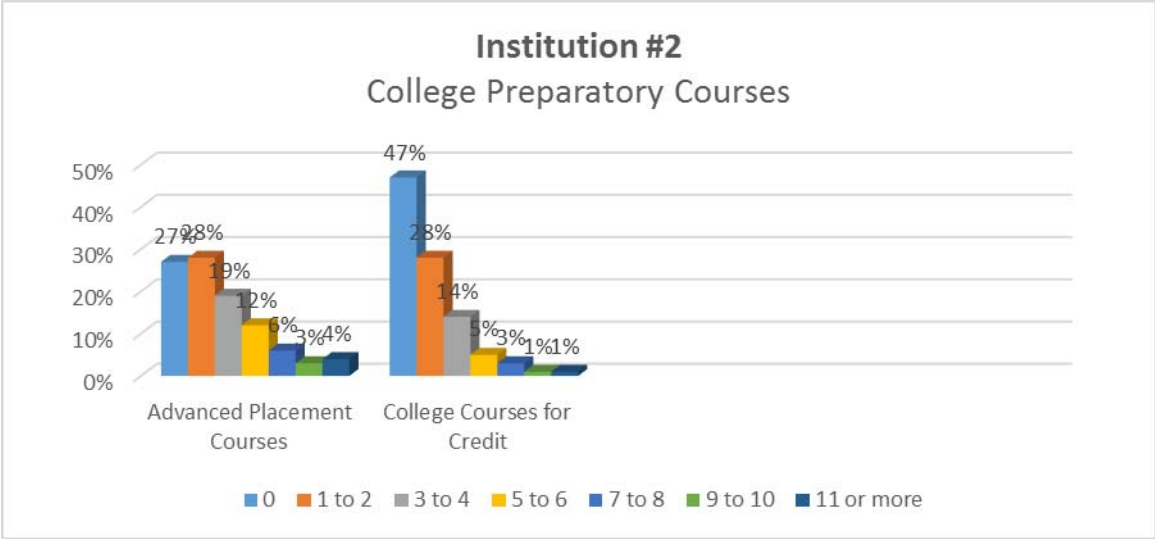

Figure 3.5

Figures 3.6 and 3.7 show the high school grades and expected freshman year grades from both institutions. Unfortunately, the actual freshman year grades for students at Institution Number Two were not available. Both charts display consistency between the high school grades and the expected freshman year grades of students from both institutions (BCSSE, 2012; BCSSE, 2014). In contrast, student grades at Institution Number One declined slightly from the senior year of high school to the freshman year of college. For example, the percentage of students earning mostly A's or A-'s declined from 43% to 41%, and the percentage of students earning B's and B+'s declined from 48% to 38%. Furthermore, the percentage of students earning mostly grades of B- or lower increased from 8% to 21% (BCSSE, 2012; NSSE, 2013).

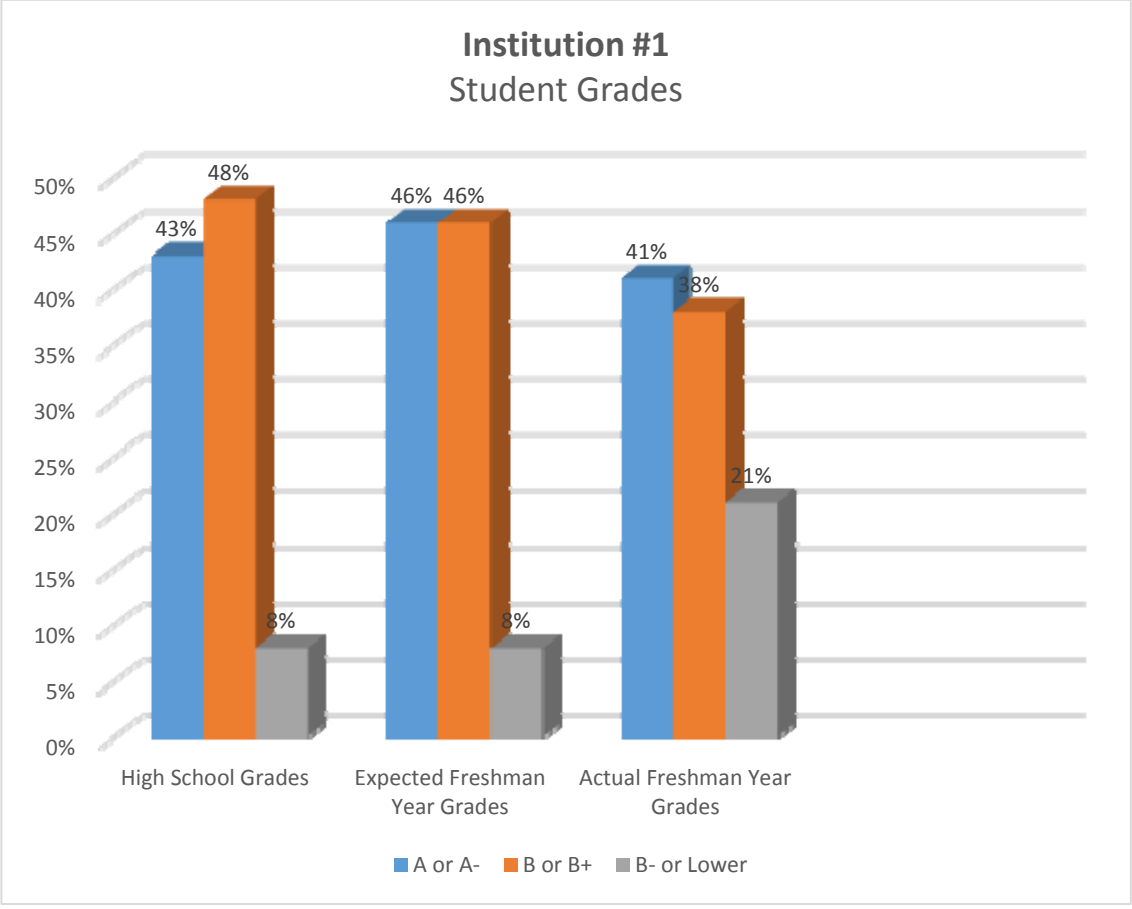

Figure 3.6

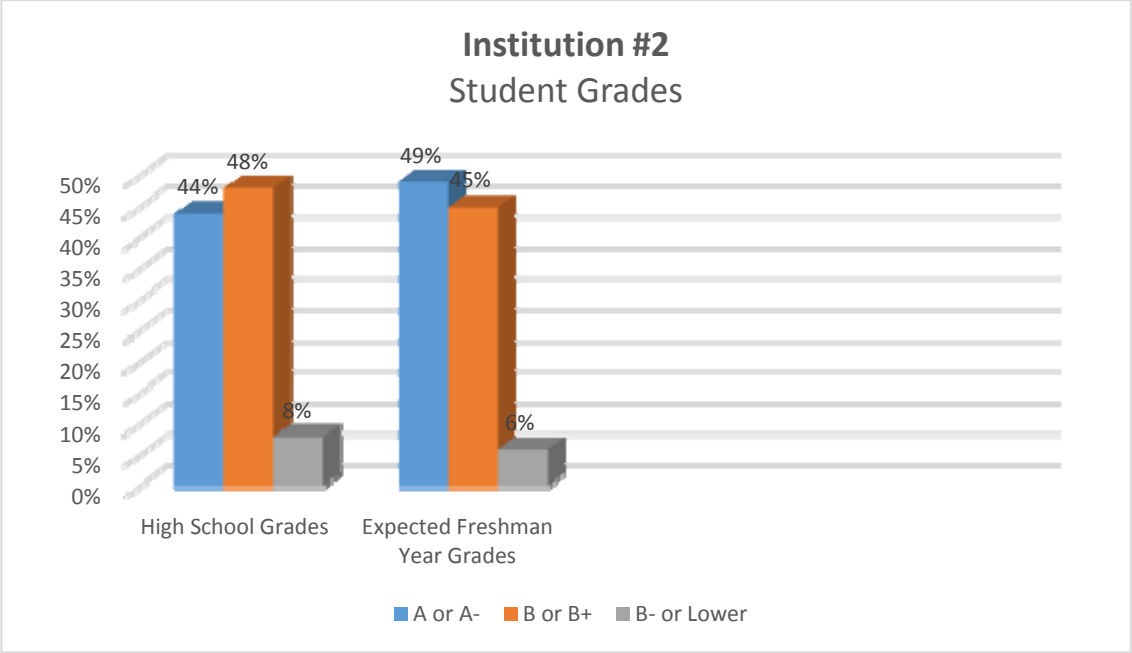

Figure 3.7

Overall, students from Institution Number Two scored higher on the Scholastic Aptitude Test (SAT) and the American College Test (ACT) than students from Institution Number One. The authors of the BCSSE reports converted the ACT scores to the SAT equivalent scores for purposes of comparison. As depicted in Figure 3.8, a 6% higher rate of students from Institution Number One achieved a composite score of below 900 on the SAT (BCSSE, 2012) than the students from Institution Number Two (BCSSE, 2014). In contrast, a nearly identical percentage of students from both institutions, 29% and 28%, scored in the 901-1,000 range. For scores above 1,000, Institution Number Two yielded slightly higher percentages of students scoring in those ranges. For example, 22% of students from Institution Number Two scored between 1001 and 1100, compared to 19% at Institution Number One. Furthermore, 17% of students from Institution Number Two scored in the 1101-1200 range, whereas 13% of students from Institution Number One did so. Furthermore, 7% of students from Institution Number Two scored between 1201 and 1300, as opposed to 4% from Institution Number One. Two percent of the students from Institution Number Two scored in the 1301-1400 range, while 1% from Institution Number One did so.

Notably, 1% of students from Institution Number Two scored above a 1400 on their SAT exam, and no students from Institution Number One scored in this range.

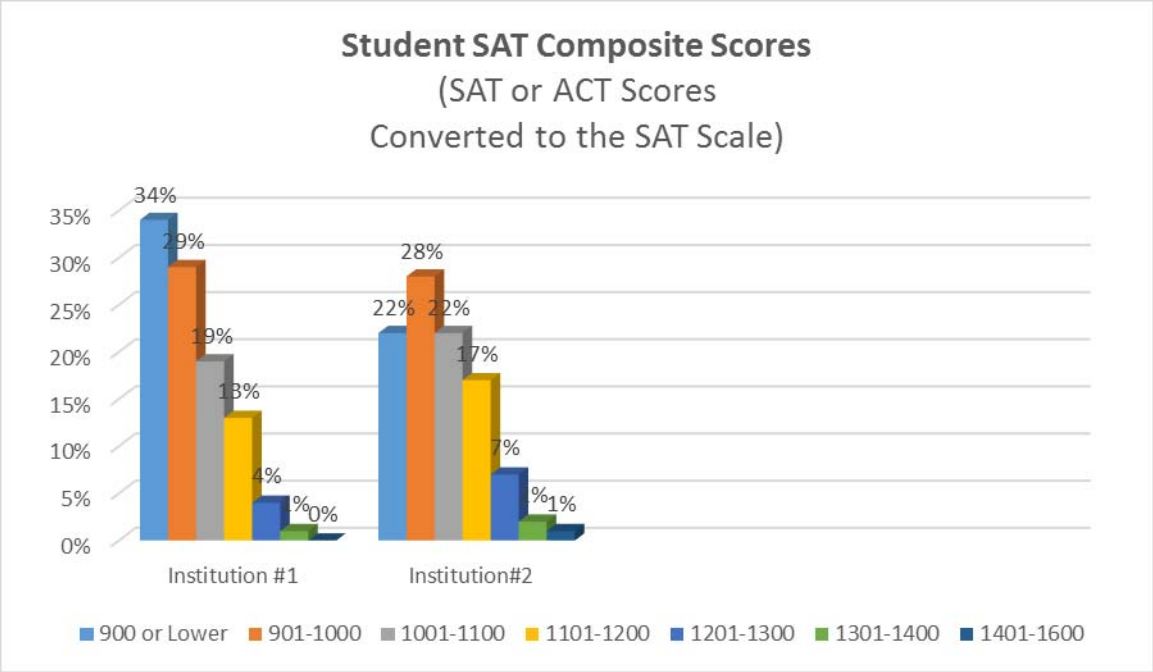

Figure 3.8

Figure 3.9 depicts the education level of both parents of the students at Institution Number One. According to recent census data, 17.7% of the adults over the age of 25 in the city surrounding this institution completed a four-year degree (United States Census Bureau, 2014). Consistent with this finding, students stated that 66% of the mothers and 60% of the fathers definitely did not complete a four-year college degree. Furthermore, 21% of mothers and 22% of fathers held a bachelor's degree. In addition, 13% of respondents stated that they did not know their mother's education level, and 18% did not know the education level of their fathers. As expected, 66% of the students identified themselves as first-generation college students (BCSSE, 2012).

Similar to previous demographic information, respondents from Institution Number Two (Figure 3.10) provided different responses regarding the education level of their parents than those from Institution Number One (Figure 3.9). However, comparable trends emerge in the data from Institution Number Two. For example, 19.5% of adults over 25 in the

surrounding area hold a bachelor's degree or higher (United States Census Bureau, 2014). Likewise, this data also shows that 66% of students from Institution Number Two were first-generation college students (BCSSE, 2014).

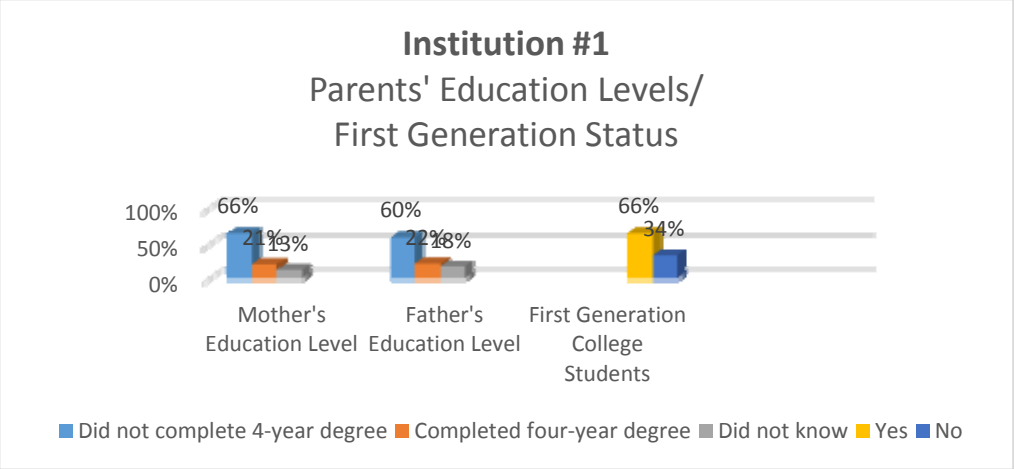

Figure 3.9

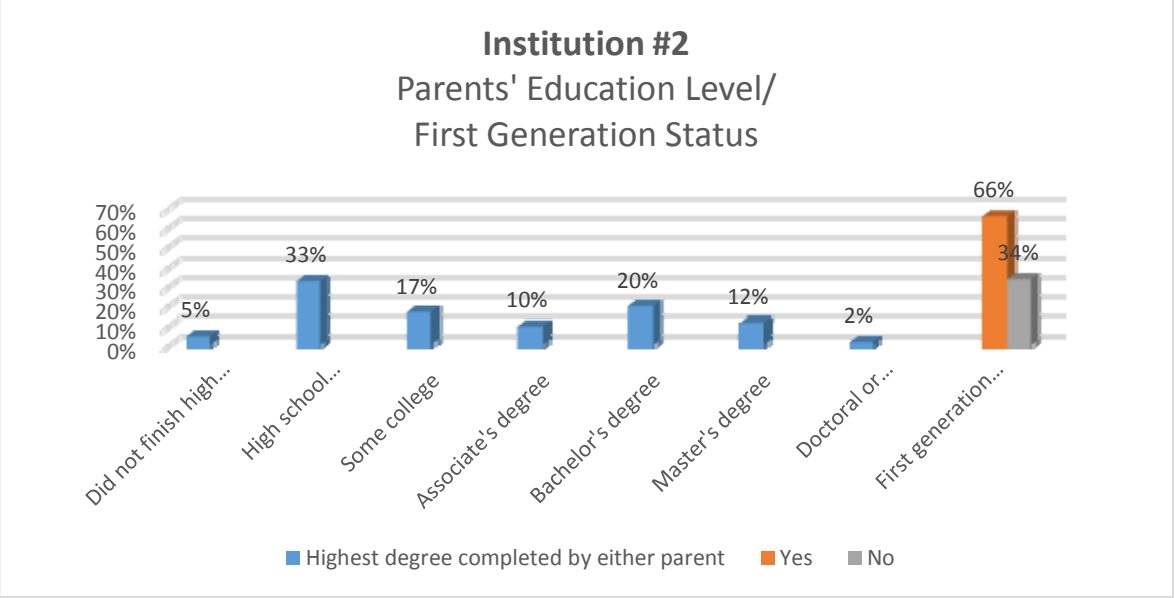

Figure 3.10

Measurement Instruments

The BCSSE survey collects data annually from entering freshmen at hundreds of colleges and universities. The survey asks questions about the academic and co-curricular activities of students, as well as their expectations of their first year of college work (BCSSE, 2015). The questions cover high school topics such as writing, learning strategies, quantitative reasoning, study techniques, Advanced Placement courses and dual enrollment. In addition, questions about college expectations of hours spent preparing for class, academic difficulty, discussions with diverse others, and perceived academic preparedness (BCSSE, 2015).

The NSSE survey also collects data annually, but from college students who have completed one year of college work and from college seniors regarding their participation in university programs and learning activities (NSSE, 2015). For this study, only data from first-year college students was analyzed. The NSSE questions address some of the same topics as the BCSSE, such as writing requirements, learning activities, and study habits. Furthermore, both surveys asked questions such as, "During the current school year, how often have you included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments?" (NSSE, 2015, p.2)

Validity and Reliability

The BCSSE and NSSE surveys show a high level of validity due to the fact that the surveys are administered annually to entering college freshmen and first-year college students across the nation. In fact, previously reported data from both instruments is used in some of the literature reviewed in this study. Data from the BCSSE and the NSSE measure student engagement by posing questions regarding the learning activities undergone in high schools, colleges and universities. The fact that student responses to the NSSE survey consistently report data regarding student engagement in college coursework also proved the reliability of the surveys.

Procedure for Data Collection and Analysis

The quantitative data was collected from recent BCSSE and NSSE reports from two universities that serve large Hispanic populations. The researcher analyzed data from the surveys using inferential statistics. The researcher formed conclusions regarding the college preparedness of the general student population of the two universities studied. When survey

participants answered questions regarding the frequency of specific learning activities and study habits, they usually chose among these four answers to each question: 1= never, 2= sometimes, 3= often, and 4= very often. The researcher reported the percentage of students that provided each response. When analyzing the data, the researcher focused on the mode response, or the most frequently provided response, to each question in order to determine the most common frequency of each learning activity during the senior year of high school and during the freshman year of college. The statistics are displayed in bar graphs in Chapter IV.

Furthermore, the researcher calculated the correlations between the data sets regarding high school learning activities and the data sets regarding college learning activities. Pearson Correlation Coefficients determined the existence of a positive or a negative correlation between the responses provided for high school learning activities and the responses provided for the college learning activities (Laerd Statistics, 2015).

The researcher used the following equation to calculate Pearson Correlation Coefficients:

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[\, n\Sigma x^2 - (\Sigma x)^2 \,][\, n\Sigma y^2 - (\Sigma y)^2 \,]}}$$

The variable "n" represents the number of participants in each data set. "X" represents the value of each datum in the high school data sets, while "y" represents the value of each datum in the college data sets. Once the correlation coefficient, or "r", is calculated, the equation will yield a solution between -1 and +1. The closer "r" is to +1, the stronger the positive correlation that exists. Conversely, the closer "r" is to -1, the stronger the negative correlation. If $r=0$, then no correlation exists (Laerd Statistics, 2015). Four types of correlations may result:

1.) Strong positive correlations (ex: 0.867)
2.) Weak positive correlations (ex: 0.143)
3.) Strong negative correlations (ex: -0.755)
4.) Weak negative correlations (ex: -0.298)

(Laerd Statistics, 2015)

In addition, the researcher performed paired-samples T-Tests on the same sets of data using the Statistical Package for the Social Sciences (SPSS) software. A paired-samples T-Test compares the means, or averages, of a pair of data sets (Statistics Solutions, 2015). The following equation is used:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{{s_1}^2}{n_1} + \frac{{s_2}^2}{n_2}}}$$

Upon analysis of the quantitative data collected from the surveys, the researcher determined the correlation between the learning activities and study habits in high schools and those that took place during the first year of college. Once this was accomplished, the researcher reported the results in Chapter IV and discussed the implications of the results in Chapter V. Recommendations for further research were also made in Chapter V.

CHAPTER IV:
RESULTS

Introduction

Data from the Beginning College Survey of Student Engagement (BCSSE) from two Institutions demonstrated the frequency of each learning activity during the senior year of high school compared to the expected frequency during the freshman year of college (BCSSE, 2012). Responses to the National Survey of Student Engagement (NSSE) from the following year demonstrated the actual frequency of each learning activity during the freshman year of college (NSSE, 2013). The BCSSE and NSSE surveys contained self-reported data. The researcher compared the responses to each question within each university and across both universities.

The figures below will show the high school frequencies of each activity, the expected frequency during the freshman year of college, and the actual frequency from the freshman year of college from each individual institution. Furthermore, the researcher determined the correlation between the high school learning activities included in the BCSSE surveys to the learning activities from the freshman year of college included in the NSSE surveys. The equation shown in Chapter III yielded the coefficients for Institution Number One learning activities, writing activities, and study habits. *N,* the number of participants, equaled 151 (n= 151) for the BCSSE and NSSE surveys from Institution Number One. Pearson coefficients demonstrate four types of possible correlations:

1.) Strong positive correlation
2.) Weak positive correlation
3.) Strong negative correlation
4.) Weak negative correlation

(Laerd Statistics, 2015)

As stated in Chapter III, the possible values of Pearson Correlation Coefficients range from -1 to +1. The closer the value is to -1 or +1, the stronger the correlation between two sets of statistics (Laerd Statistics, 2015). For example, a positive value, such as 0.815, shows

a strong positive correlation, whereas a value of 0.1 shows a weak positive correlation. Moreover, a value of -0.908 shows a strong negative correlation. Conversely, -0.255 depicts a weak negative correlation. A value of "0" indicates that no correlation exists between two data sets (Laerd Statistics, 2015).

The researcher did not have access to the individual responses from Institution Number Two. Unfortunately, correlation coefficients could not be calculated for that data. For the BCSSE survey from Institution Number Two, n=1,059. However, a smaller sample completed the NSSE survey, or n= 267.

Learning Activities

Students at Institution Number One reported the frequency in which they engaged in each learning activity during their last year of high school, the predicted frequency during the first year of college (BCSSE, 2012), and the actual frequency during the first year of college (NSSE, 2013). Some components of each question appeared differently on the NSSE than on the BCSSE. The researcher compared the responses to questions that appeared identically on the high school section of the BCSSE survey to the responses on the NSSE survey in order to determine the correlation between the high school frequencies and the frequencies during the first year of college. The researcher analyzed the responses of the students who completed at least one Advanced Placement (AP) course and/or at least one dual credit course during their high school years versus the students who completed none of the aforementioned courses. Unexpectedly, no significant difference occurred in the responses of the two groups of students.

First, active participation in class discussions is an important component of the critical thinking expected in college coursework (NSSE, 2014). Respondents to the BCSSE surveys reported the frequency of participation in class discussions during their senior year of high school and the predicted frequency during their freshman year of college (BCSSE, 2012). These same respondents reported the actual frequency of participation in class discussions during their freshman year of college (NSSE, 2013). Evidence of the importance of participation in class discussions shows in the fact that only 1% of the students stated that they "never" participated in class discussions during their senior year of high school. The same percentage of students predicted that they would "never" do so during their freshman year of college, and 1% also stated that they never actually engaged in the class discussions

during their first year of college. Also, the data from Institution Number One indicated a 16% increase in students who asked questions and contributed to class discussions "sometimes", from 28% in the last year of high school to 44% the first year in college. On the other hand, a low 17% of students predicted that they would contribute to class discussions only "sometimes". The data also shows a slight decline in the number of students who contributed to class discussions "often", from 39% in high school, and a predicted rate of 38%, to 34% in the first year of college. In addition, the percentage of students who did so "very often" decreased significantly from the last year of high school to the first year of college, from 32% to 21%. Furthermore, the predicted frequency for the freshman year of college was 44%, greatly higher than the 21% that did so "very often" in college. Moreover, during the last year of high school, the mode was "often", while the mode during the first year of college was "sometimes" (BCSSE, 2012 & NSSE, 2013). Consequently, the results yielded a moderately weak positive correlation between the high school frequency and the college frequency of r=0.415. The paired samples T-Test yielded a similar correlation of 0.422.

Equally important, college professors expect students to communicate clearly and effectively through the delivery of class presentations (NSSE, 2014). The students' responses from Institution Number One depicted a decline from the frequency of class presentations given during the senior year of high school (BCSSE, 2012) to the frequency of class presentations during the first year of college (NSSE, 2013). For instance, only 1% of high school seniors stated that they "never" gave a class presentation, and the same percentage predicted that they would "never" do so during their first year of college. Conversely, 19% of college freshman respondents "never" gave a class presentation. Furthermore, 37% of students stated that they gave presentations "often" during their senior year of high school. In contrast, only 25% of the students did so "often" during their freshman year of college, accounting for a 12% decline. Moreover, 34% of the respondents gave class presentations "sometimes" during their last year of high school, while 46% did so "sometimes" during their first year of college. Similar to the responses regarding participation in class discussions, students also predicted a higher frequency of class presentations during the first year of college than the frequency that actually occurred. The mode response to the predicted frequency of class presentations was "often", at a rate of

47%. This data shows a sharp decline of 22% between the percentage of students who predicted that they would give presentations "often" during their freshman year of college (BCSSE, 2012) and the 25% of students who actually gave presentations "often" (NSSE, 2013). Therefore, a moderately weak positive correlation, r=0.467, exists between making class presentations during the senior high school and doing so during the freshman year of college. The T-Test yielded a correlation of 0.469.

In addition, working effectively with fellow students is an important skill for college students to develop (Conley, 2012). Respondents to the BCSSE and the NSSE surveys also reported the frequency of working with other students on class projects and assignments. The responses to this question demonstrated more consistency among the frequency of the last year of high school, the predicted frequency for the first year of college, and the actual frequency for the first year of college. Forty-three percent of the students collaborated with fellow students during class "often" during the last year of high school (BCSSE, 2012), and 41% predicted that they would do so "often" during their first year of college (NSSE, 2013). As predicted, a comparable 45% worked cooperatively with other students during class "often." Furthermore, 25% of students worked with other students "very often" during their senior year of high school, and 30% predicted that they would do the same in college. In addition, 24% collaborated with classmates "often" during their freshman year of college, which demonstrated only a 1% decline from high school to college (NSSE, 2013). The data showed a weak positive correlation, r= 0.267, and a T-Test correlation of 0.276 between cooperative learning in high school and college.

One component of writing clearly and effectively is the preparation of two or more drafts of a paper or assignment prior to turning in the final copy (BCSSE, 2012 & NSSE, 2013). The mode response for the last year of high school at Institution Number One was "some", at a rate of 40%, and 36% did so "often" (BCSSE, 2012). On the contrary, only 28% prepared two or more drafts "often" during their freshman year of college and 29% did so "some" (NSSE, 2013). In addition, the mode response for the first year of college was "very often", at a rate of 35%. This demonstrates a 15% increase from the 20% of students who prepared two or more drafts of papers or assignments "very often" during their last year of high school (BCSSE, 2013). As a result, this set of data depicts a weak positive correlation between the frequency of preparing multiple drafts in the last year of high school

to the frequency of the first year of college, or r=0.207. However, the T-Test produced a correlation of 0.166. Figures 4.1, 4.2, and 4.3 display all percentages of the student responses to the aforementioned questions.

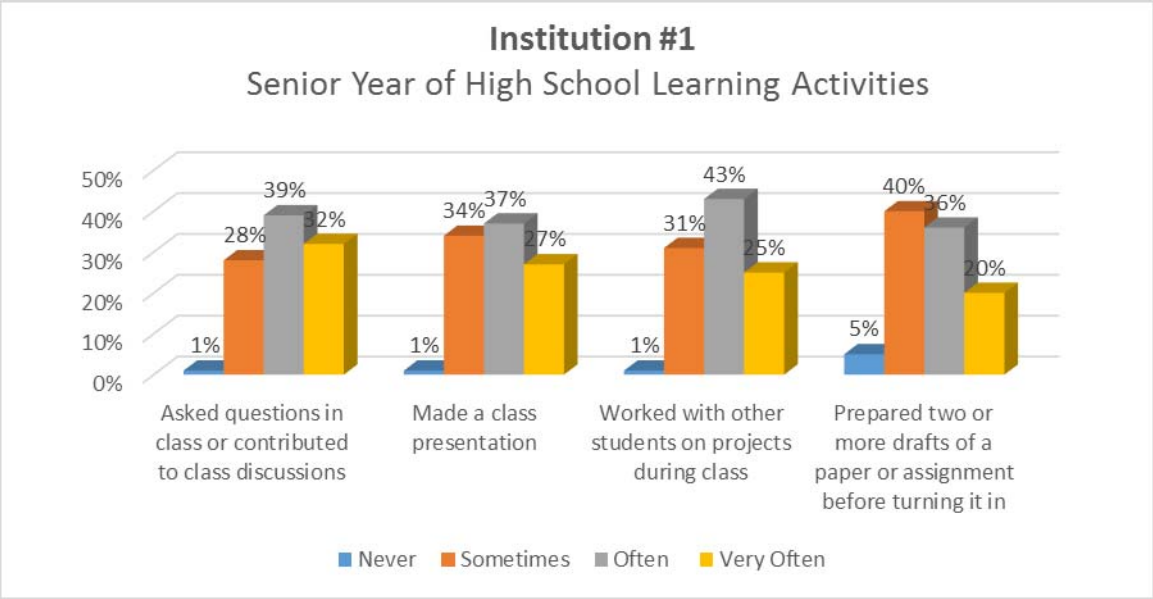

Figure 4.1

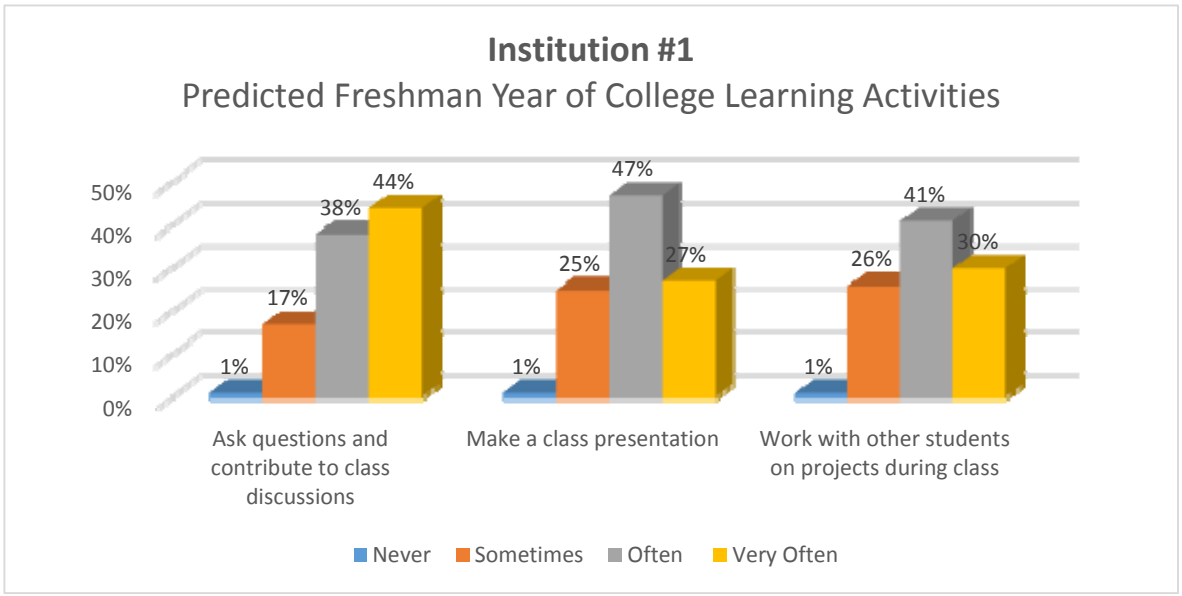

Figure 4.2

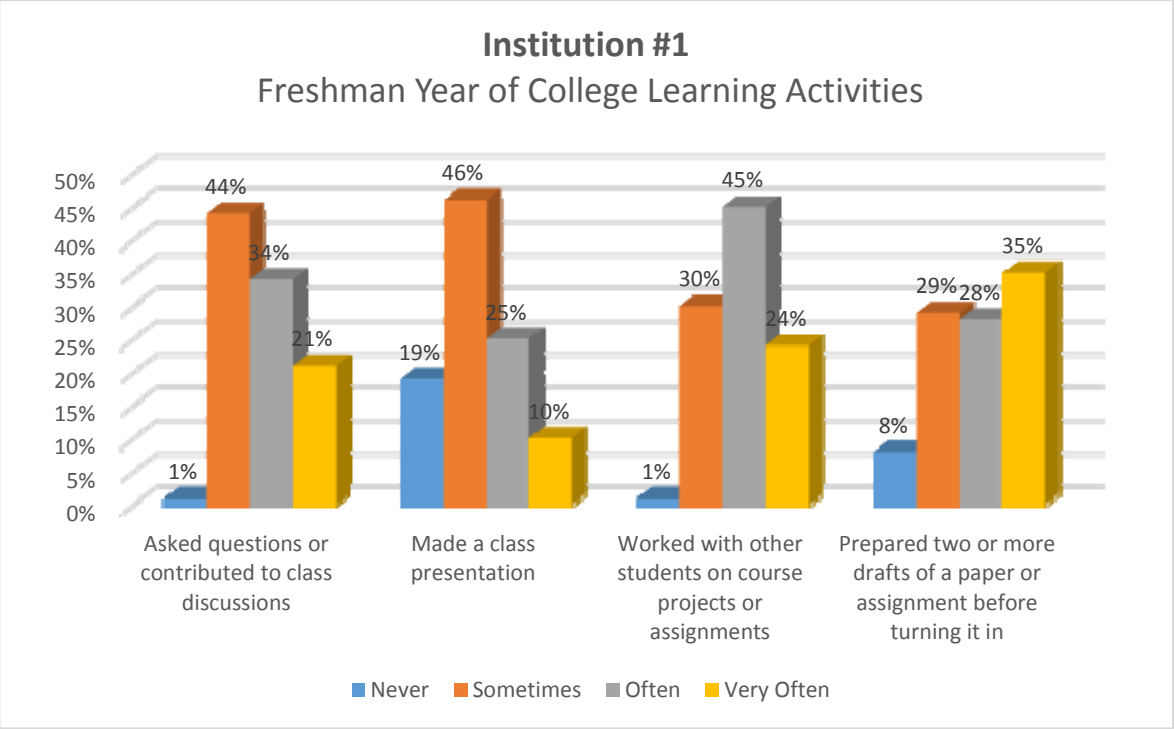

Figure 4.3

Students from institution Number Two responded to several questions that did not appear on the surveys that students at Institution Number One completed. Also unlike the surveys from Institution Number One, the ones from institution Number Two did not allow the respondents to make predictions about the freshman year of college in regards to these learning activities. However, those surveyed at Institution Number Two reported data on the preparation of two or more drafts of papers and assignments, as did the respondents from Institution Number One. This similarity allowed the researcher to make a comparison across institutions. Consistent with the data from Institution Number One, the data from Institution Number Two showed an increase in the frequency of preparing multiple drafts of papers and assignments from the senior year of high school to the freshman year of college (BCSSE 2014 & NSSE, 2015). For example, the mode response was "sometimes" during the senior year of high school, at a rate of 45% (BCSSE 2014), comparable to the 40% rate for the same response at Institution Number One (BCSSE, 2012). Identical to Institution Number One, 29% of students prepared two or more drafts only "sometimes" during their first year of

college at Institution Number Two, yielding a 16% decrease in this frequency (NSSE, 2013 & NSSE, 2015). The response "often" showed consistent percentages from the senior year of high school to the freshman year of college at Institution Number Two, at rates of 30% and 31%, respectively. Different from the other responses, the percentages for the response "very often" increased from the last year of high school to the first year of college, similar to the increase seen at Institution Number One. Nine percent of students at Institution Number Two prepared multiple drafts of papers and assignments "very often" during their senior year (BCSSE, 2014). During the freshman year of college, the rate increased to 20% (NSSE, 2015).

Furthermore, an important component of the critical thinking required for success in college coursework is "[examining] the strengths and weaknesses of your own views on an issue or topic" (NSSE, 2014). The mode response for the senior year of high school was "often", at a rate of 38%. Thirty three percent of students examined their views "sometimes" (BCSSE, 2014). The mode response was, once again, "often" during the first year of college, at a slightly increased rate of 42%. Moreover, 34% of the students did so "sometimes" during their first year of college (NSSE, 2015). Another example of the consistency shown for this question is the 19% of students who examined their arguments "very often" during their senior year of high school (BCSSE, 2014), and the 22% that did so "very often" during their freshman year of college (NSSE, 2015). Figures 4.4 and 4.5 display the aforementioned data.

In addition, college students often use numerical information to examine real world issues. The findings show an overall increase in the frequency of this activity from the senior year of high school to the freshman year of college. Once again, the mode response for high school seniors was "sometimes", at a rate of 41% (BCSSE, 2014). Also, similar to the other questions on the survey from Institution Number Two, the mode response for college freshmen was "often", at a rate of 33%. Moreover, the response of "sometimes" yielded a decline from 41% during the senior year of high school to 29% during the freshman year of college. The response of "often" stayed consistent, going from 31% during the last year of high school to 33% during the first year of college. In addition, the response of "very often" showed an increase of 5% from the senior year of high school to the freshman year of college, going from 11% to 16%.

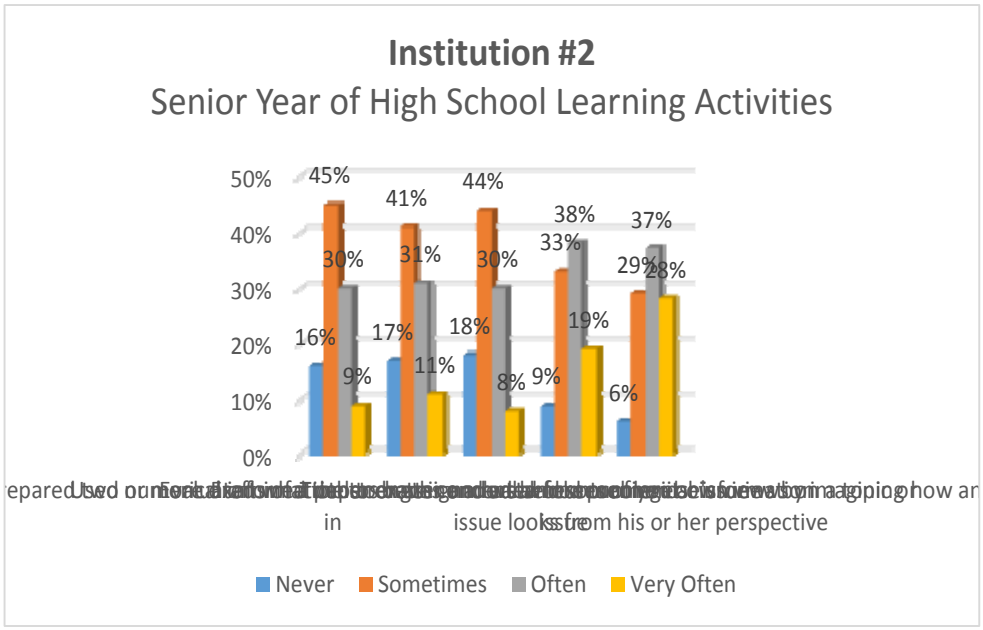

Figure 4.4

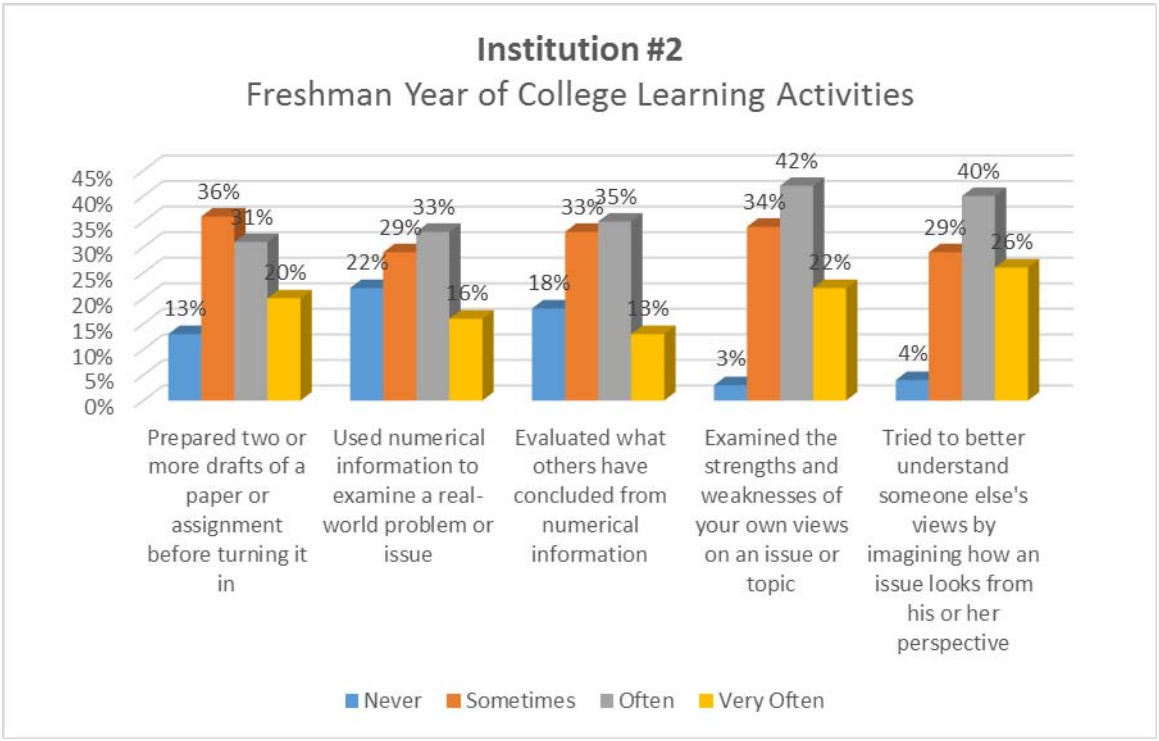

Figure 4.5

Writing Activities

Figure 4.6 demonstrates that students from Institution Number One chose from five possible responses to questions regarding writing activities, ranging from "none" to "very much" (BCSSE, 2012). The mode response regarding short papers (five pages or less) at Institution Number One was 40% for "quite a bit". The second most common response was 27% for the choice "very much." In addition, the mode response to the amount of long papers written during the senior year of high school was "some", at a rate of 28%, and 26% wrote "quite a bit" of long papers at Institution Number One (BCSSE, 2012).

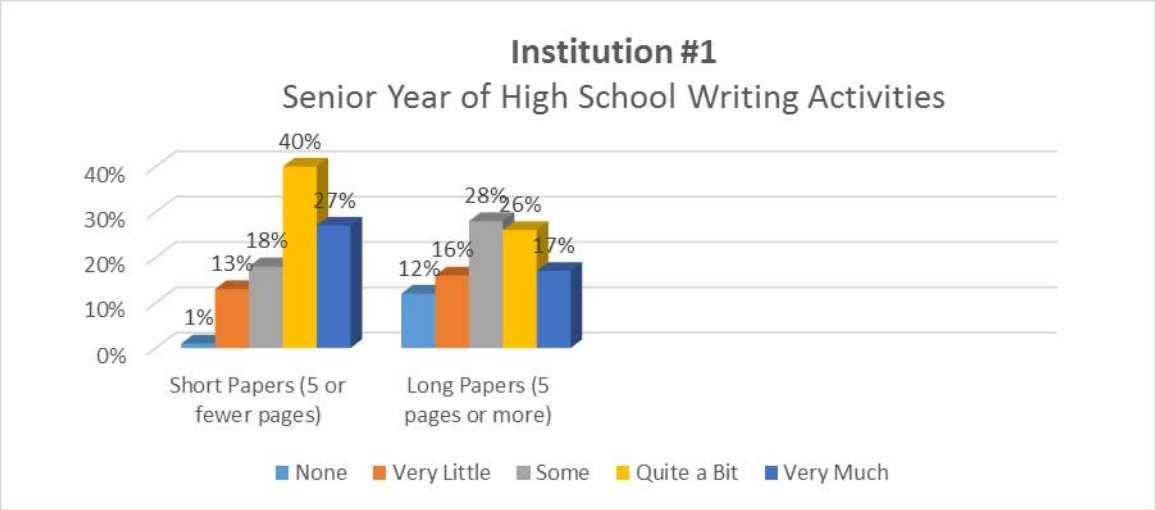

Figure 4.6

Furthermore, the comparison between 2012 BCSSE data and 2013 NSSE data from Institution Number One shows a possible decline in the amount of writing required from the senior year of high school to the freshman year of college, as displayed in Figures 4.6 and 4.7. While 40% of respondents wrote short papers "quite a bit" during their last year of high school (BCSSE, 2012), only 17% of college freshmen from the same university stated that they wrote between six and 10 short papers, which may loosely equate to "quite a bit" (NSSE, 2013). The mode response among the exiting college freshmen was one or two short papers, at a rate of 37%. The rate of three to five short papers came a close second, at a rate of 34% (NSSE, 2013). Furthermore, 28% of the BCSSE respondents wrote papers 5 pages in

length or more “some”, and 26% wrote these papers “quite a bit” (BCSSE, 2012). However, the mode response for medium papers (six to 10 pages) during the first year of college was 50% for “none”, and 35% of those surveyed wrote only one or two medium length papers. In addition, a large majority of college freshmen, 84%, never wrote a paper 11 pages or longer. Only 10% of the students stated that they wrote one or two long papers (NSSE, 2013). Due to the fact that the respondents needed to choose subjective responses on the BCSSE survey rather than numerical responses, as they did on the NSSE survey, a Pearson Correlation Coefficient could not be calculated.

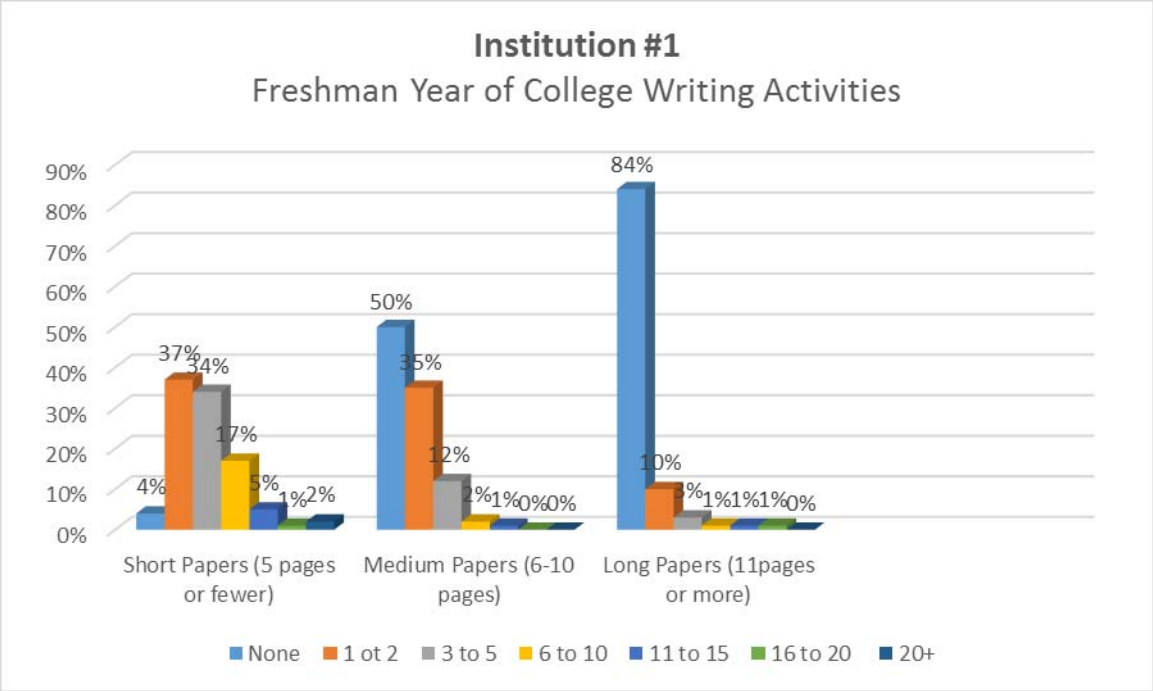

Figure 4.7

Fortunately, respondents from Institution Number Two had the option to provide numerical responses to this question on both surveys, which provide a more detailed picture of the amount of writing done by these students. The data demonstrated a recurrence of the trend of the respondents predicting that they would write more papers during their freshman year of college than they actually wrote during that year. At Institution Number Two, the mode response to the frequency of short papers during the senior year of high school was

three to five papers, at a rate of 32%. Furthermore, 28% of those surveyed at the same institution did only one or two short papers during their senior year of high school. However, many students predicted that they would write three to five or six to 10 short papers, both at rates of 32% (BCSSE, 2014). The most common number of papers written during high school and the most common frequency predicted, both 32%, for three to five short papers (BCSSE, 2014), coincide the most with the most common frequency during the first year of college, which was also three to five short papers. The percentage of students that wrote three to five short papers during their first year of college increased to 40% (NSSE, 2015).

However, the results for medium papers demonstrate less consistency. During their senior year of high school, 52% of the students wrote no papers between six and 10 pages in length. In addition, 33% stated that they wrote only one or two medium-length papers. In contrast, 35% of the respondents predicted that they would write three to five medium-length papers, and 28% believed that they would write one or two (BCSSE, 2014). However, 46% of the NSSE respondents wrote one or two medium length papers, which shows an increase of 13% from the 33% that wrote one or two of such papers in high school. Furthermore, only 25% of college freshmen wrote no medium-length papers (NSSE, 2015). The percentage of students who wrote six to 10 or more medium papers increased, also. A combined 5% of students from Institution Number Two wrote six to 10 or more medium papers during their last year of high school, while a combined 13% wrote six to 10 or more medium papers during their first year of college.

In addition, the number of long papers done by the BCSSE and the NSSE respondents were consistent between the two school years. Eighty-two percent of high school seniors submitted no papers 11 pages in length or more (BCSSE, 2014), and 74% of the college freshmen did no long papers (NSSE, 2015). However, the percentage of students who did one or two increased from 13% during the last year of high school (BCSSE, 2014) to 19% during the freshman year of college (NSSE, 2015). Consistently, a combined 5% of students completed three to five or more long papers during their senior year of high school, compared to a combined 7% during the freshman year of college. The data regarding medium-length papers and long papers demonstrate a possible need to assign one or two of both types of papers during the senior year of high school.

The results regarding writing activities from Institution Number Two are shown below in Figures 4.8, 4.9, and 4.10.

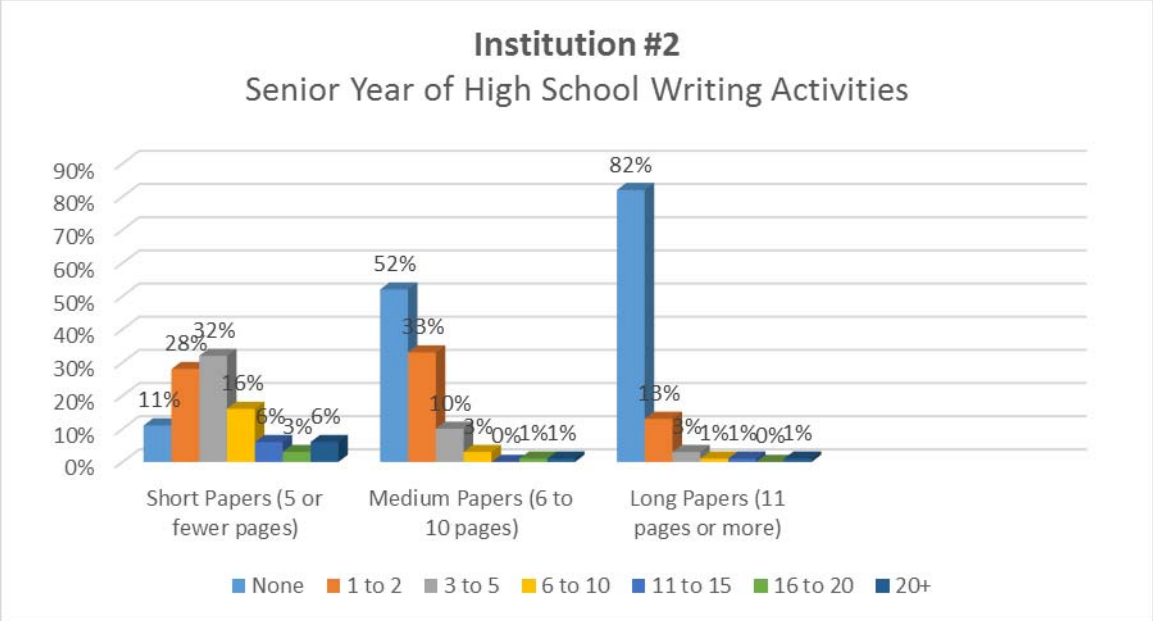

Figure 4.8

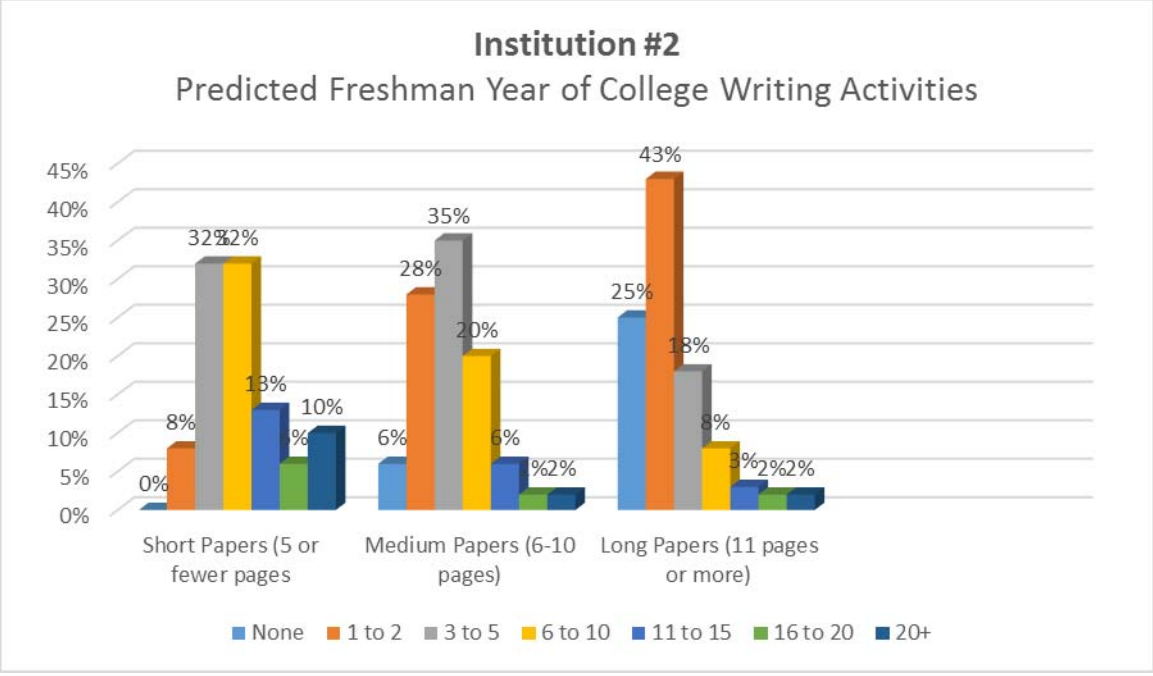

Figure 4.9

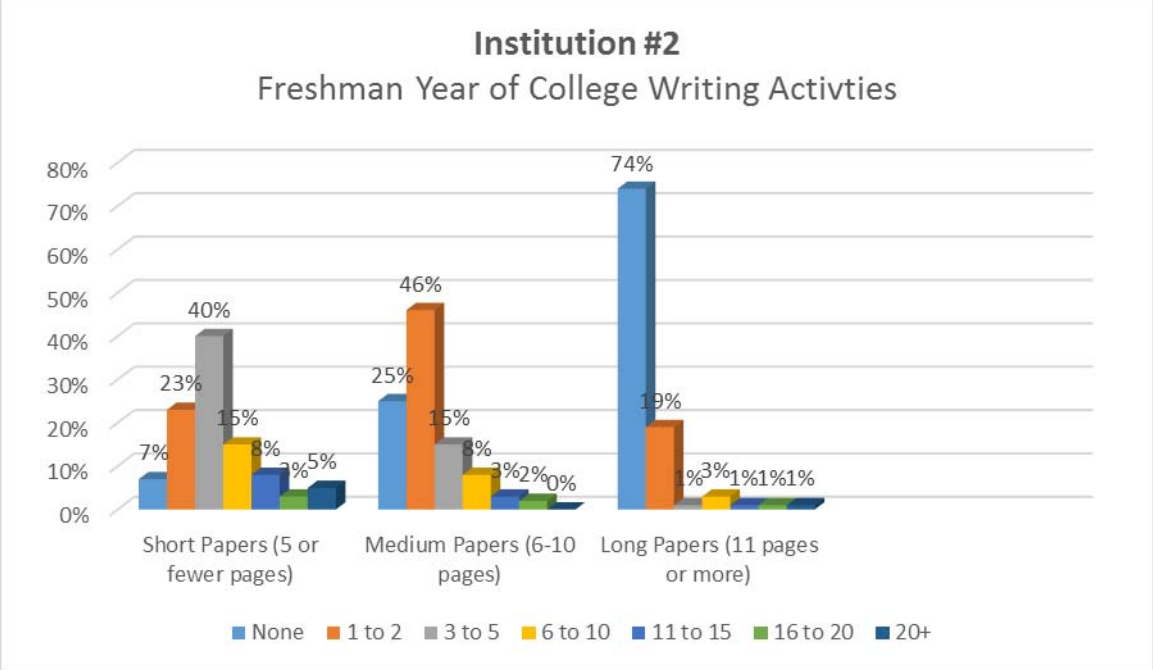

Figure 4.10

Study Habits

A major concern for beginning college students and their professors is the increased amount of preparation outside of class necessary for success in college coursework compared to that required for high school coursework (McCarthy & Kuh, 2006). Figure 4.11 demonstrates that the mode response for class preparation during the senior year of high school for students at Institution Number One was one to five hours per week, at a rate of 47%. Despite this fact, the incoming freshman respondents to the BCSSE survey appeared to understand that they would need more preparation time during their first year of college. For instance, the majority of the predictions for the first year of college were consistently distributed among the options of six to 10 hours per week, 11 to 15 hours, 16 to 20 hours, and 21 to 25 hours of class preparation per week (BCSSE, 2012). Moreover, the same respondents demonstrated an increase in study time from their senior year of high school to their freshman year of college. The mode response was six to 10 hours per week, at a rate of 26%, while 24% studied for one to five hours per week, and 23% studied for 11 to 15 hours per week (NSSE, 2013). Although one to five hours was the second most common response to this question for the freshman year of college (NSSE, 2013), the percentage declined 23%

from the 47% of students who studied only one to five hours per week during their last year of high school to the 24% that did so during their freshman year of college (BCSSE, 2012). The data yielded a weak positive correlation of r=0.319 and a T-Test correlation of 0.314.

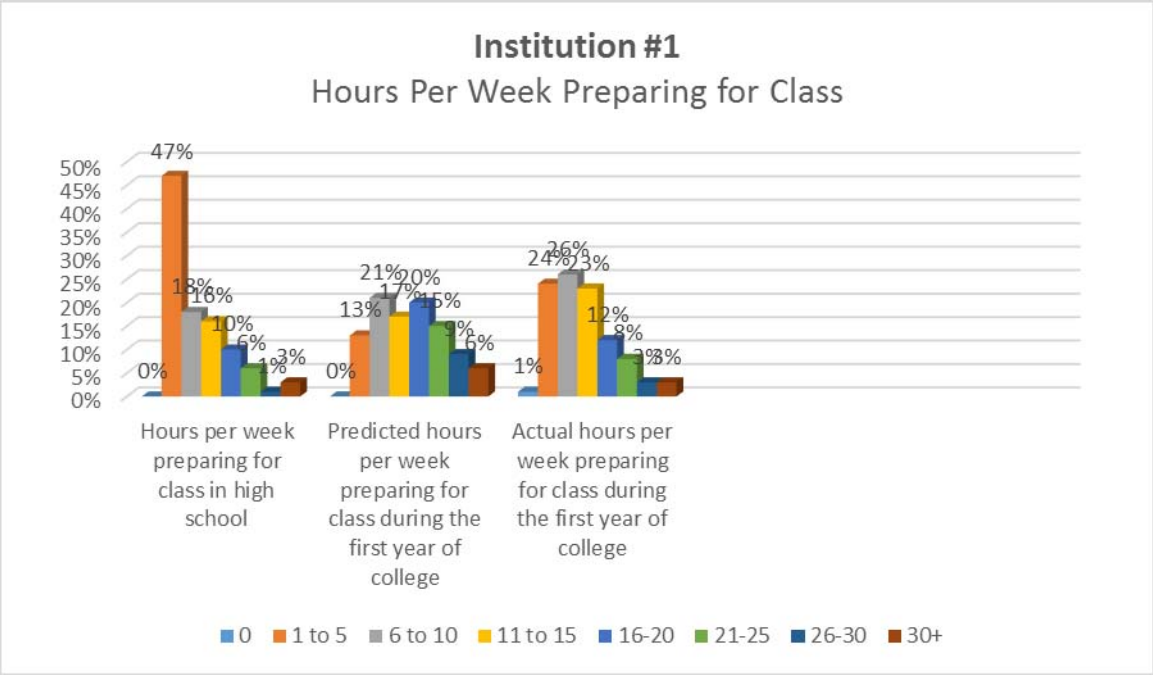

Figure 4.11

A similar trend emerged in the data from Institution Number Two regarding study time during the senior year of high school as opposed to study time during the freshman year of college. As depicted in Figure 4.12, 54 % of the incoming freshmen stated that they spent only one to five hours per week preparing for class during their senior year of high school. Similar to the students from Institution Number One, students from Institution Number Two predicted that they would need more study time in college. Furthermore, the predicted study time for the first year of college demonstrated consistency with the actual hours per week of study time needed during the freshman year of college. For example, a small majority of students, a combined 72%, predicted that they would study for six to 10, 11 to 15, or 16 to 20 hours per week during their freshman year of college (BCSSE, 2014). Sixty-four percent of the students actually studied for those amounts of time during their freshman year of college.

In addition, the mode response was six to 10 hours per week during the first year of college, similar to Institution Number One, at a rate of 25%. Twenty-three percent of the respondents studied for 11 to 15 hours per week, 17 % for one to five hours, and 16% studied for 16 to 20 hours per week during their first year of college (NSSE, 2015).

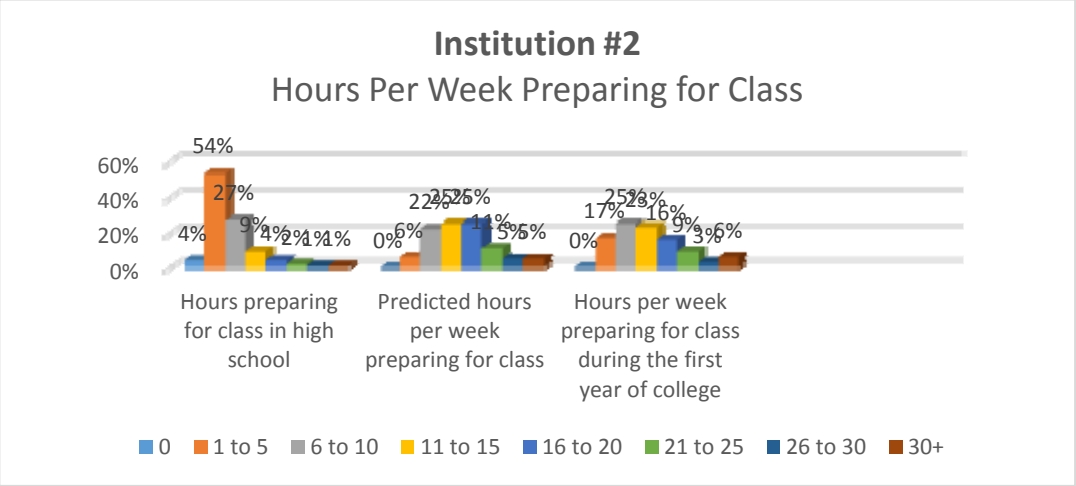

Figure 4.12

In order retain material learned in college courses, many successful college students utilize specific study techniques (NSSE, 2014). The surveys from Institution Number One did not include these questions. As shown in Figures 4.13 and 4.14, the information provided in the surveys from Institution Number Two showed an increase in the frequency of all three techniques from the senior year of high school to the freshman year of college. For example, 38% of the respondents reviewed their notes after class only "sometimes" during the last year of high school (BCSSE, 2014), whereas 24% did so only "sometimes" during the first year of college, accounting for a 14% decrease (NSSE, 2015). The rate of the response "often" yielded a small increase from 33% during the senior year of high school (BCSSE, 2014) to 35% during the freshman year of college (NSSE, 2015). Most importantly, a 17% increase occurred in the rate of the response "very often", going from

20% in high school (BCSSE, 2014) to 37% during the freshman year of college (NSSE, 2015). Moreover, increased percentages of students located key information in reading assignments and summarized learned material "very often" during the freshman year of college. Twenty-nine percent of the respondents located key information "very often" during the last year of high school (BCSSE, 2014), and 42% did so during the first year of college (NSSE, 2015). In addition, 15% of incoming freshmen summarized course material "very often" during their senior year of high school (BCSSE, 2014), and 31% did so during their freshman year of college, yielding an increase of 16% (NSSE, 2015).

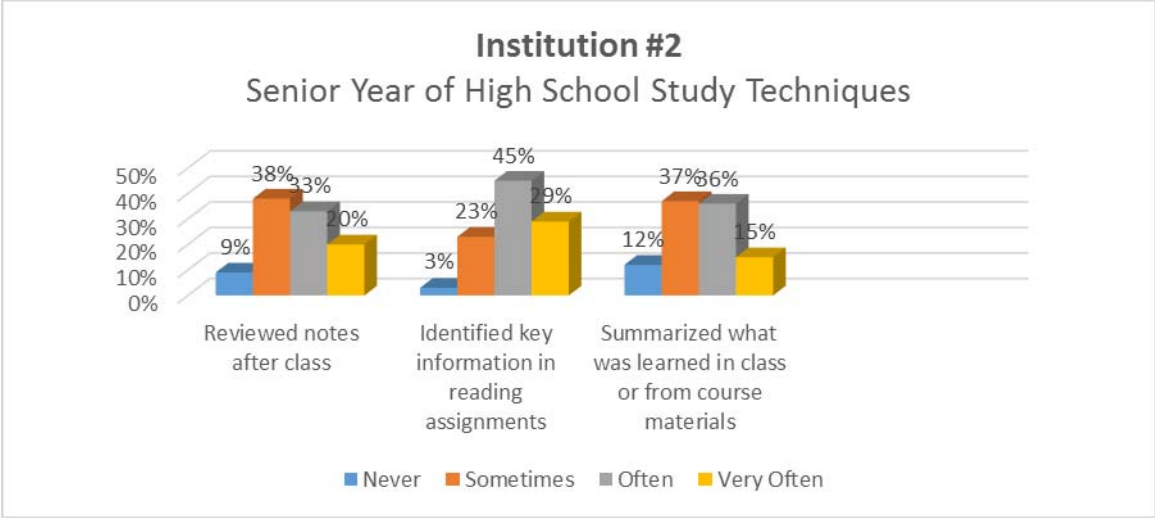

Figure 4.13

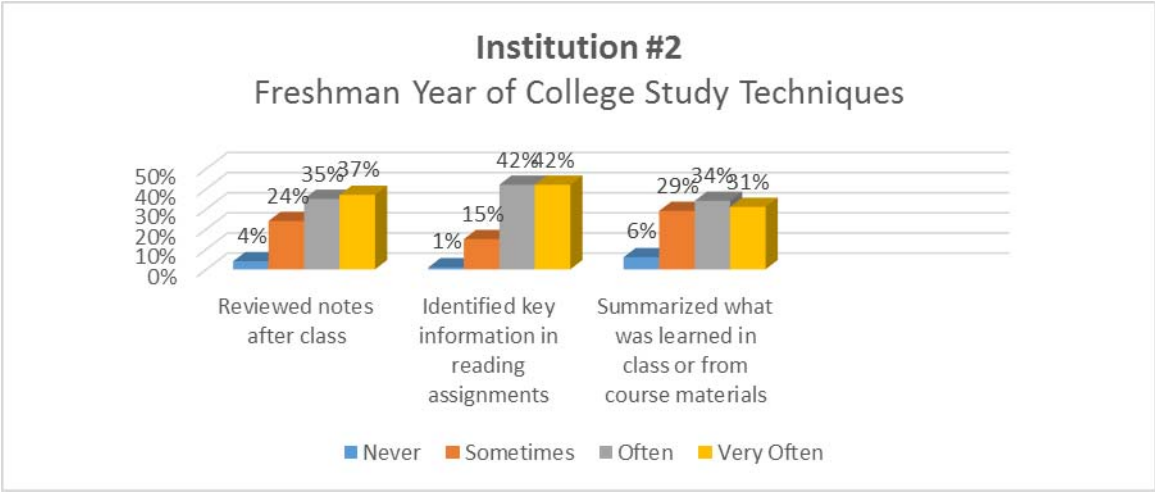

Figure 4.14

Conclusion

Hence, data analyzed from the BCSSE and NSSE surveys from Institution Number One and Institution Number Two demonstrate that the frequencies of some learning activities, writing activities, and study habits increased from the last year of high school to the first year of college, while the frequency of other learning activities decreased. For instance, the preparation of multiple drafts of assignments increased in frequency from the senior year of high school to the freshman year of college. In contrast, the frequency of classroom presentations decreased from the last year of high school to the first year of college. Unfortunately, the researcher could not calculate correlation coefficients for the data from Institution Number Two. However, the data from Institution Number One yielded weak positive correlations between learning activities, writing activities, and study habits from the senior year of high school and the same activities during the freshman year of college. The implications of the data analysis are discussed in Chapter V.

CHAPTER V:
DISCUSSION

Introduction

The issue of college preparedness weighs on the minds of education officials, administrators, teachers, students, and parents. Since the inception of the Texas College and Career Readiness Standards, Texas high schools face a higher level of responsibility for preparing students for college (Educational Policy Improvement Center, 2009). Furthermore, the more rigorous State of Texas Assessment of Academic Skills (STAAR) testing program incorporates higher-order thinking similar to that required in college coursework (Texas Education Agency, 2015). Therefore, all stakeholders now expect more students to graduate high school prepared for college.

Nevertheless, recent literature states that Texas trails many other states in college preparedness (EPIC, 2009). Currently, the six-year graduation rate from four-year public universities in Texas is 50.2%, ranking Texas 34th nationally (College Measures, 2015). Correspondingly, the freshmen retention rate in Texas is 74.7%, placing Texas 39th in the nation. In addition, only 50.2% of Texas college students complete four year degrees (College Measures, 2015). According to these statistics, Texas public schools still need significant growth in preparing students for college. Such improvement is crucial to the future of the workforce in Texas. Eighty percent of all professions require some post-secondary education (College Measures, 2015).

According to Yamamura's 2010 study, stakeholders in Hispanic Communities in South Texas assume a high level of responsibility for preparing this population of students for success in college. The focus group of education officials, teachers, community leaders, high school students, and their parents believed that increasing the education level of the Hispanic population is vital to their advancement within American society (Yamamura, 2010). Since the Hispanic population continues to grow in Texas and nationwide (United States Census Bureau, 2015), the advancement of Hispanics is crucial to the continued improvement of American society.

Texas high schools have increased their efforts to prepare students for success in college by offering more Advanced Placement (AP) courses (Hidalgo Independent School District, 2015). Furthermore, some high schools in Texas recently formed partnerships with

local universities to form early college high schools (Laredo Independent School District, 2015). In fact, Rice University founded the Center for College Readiness in order to provide college credit courses for high school students and to provide professional development for educators (Gigloitti, 2012). However, some researchers believe that even AP courses and dual credit courses, in some cases, simply provide students with strong content knowledge without the critical thinking skills, writing activities, and study habits required for college courses (College Measures, 2015). The researcher analyzed data from the Beginning College Survey of Student Engagement (BCSSE) and the National Survey of Student Engagement (NSSE) from two universities that serve a significant Hispanic population. This data was utilized in order to determine whether or not the regular high school courses, AP courses, and college credit courses completed during high school incorporated similar critical thinking activities, writing activities, and study habits necessary for success in college courses.

Moreover, the high percentage of students requiring remedial coursework represents another indication that many students graduate from high school poorly prepared for college. For example, 50% of college students nationwide who seek an associate's degree and 20% of those who seek a bachelor's degree need remedial courses before they can enroll in credit-bearing courses (Complete College America, 2011). Equally alarming, 41% of Hispanic college students nationwide require remediation, as opposed to only 31% of Caucasian students (National Conference of State Legislatures, 2015). According to recent literature, the less proficient instruction that Hispanic students in low socioeconomic areas sometimes receive may contribute to this occurrence (Nora and Crisp, 2012). However, only 20% of students at Institution Number One required remedial coursework (Texas A & M International University, 2015). Due to the aforementioned statistics, the researcher elected to focus this study on two universities that serve high percentages of Hispanic students.

Discussion

The results from the data analysis indicate a higher level of college preparedness among the students at the two institutions studied than the level of college preparedness of students nationwide (College Measures, 2015). The graphs in Chapter IV show that a higher percentage of high school seniors engage in learning activities involving higher-order thinking than the percentage that did so according to previous studies (BCSSE, 2012). Moreover, the high schools attended by the students from both institutions appear to align

their writing requirements to those expected during the freshman year of college (BCSSE-NSSE, 2012-2013; BCSSE, 2014; NSSE, 2015). In fact, students from Institution Number One engaged in some critical thinking and writing activities at a higher frequency during their senior year of high school than during their freshman year of college (BCSSE-NSSE, 2012-2013). The results from Institution Number Two demonstrate mostly small increases between the incidences of higher-order thinking activities and writing activities during the senior year of high school and those during the freshman year of college. Consequently, the researcher concludes that the first hypothesis stated in Chapter III is true. The implementation of the College Readiness Standards into the Texas Essential Knowledge and Skills (TEKS) led to an increase in the college preparedness of the students at the two institutions studied.

Furthermore, the data from both institutions demonstrate that the second hypothesis also proves true. High school courses still require fewer hours per week of preparation outside of class than do college courses (BCSSE-NSSE, 2012-2013; BCSSE, 2014; NSSE, 2015). In contrast, the BCSSE respondents from both institutions made predictions for the amount of study time necessary in college (BCSSE 2012; BCSSE, 2014) that demonstrated consistency with the actual number of hours that the NSSE respondents reported following their freshman year of college (NSSE, 2013; NSSE, 2015). In fact, students from Institution Number Two used specific study techniques required for learning college course material during their senior year of high school (BCSSE, 2014; NSSE, 2015).

Institution Number One

First and foremost, the researcher concluded that the high schools attended by the respondents at Institution Number One held themselves strongly accountable for the college preparedness of their students. Apparently, these teachers exceeded the necessary frequency of some of the higher-order thinking activities to prepare students for university coursework. Equally important, the students demonstrated a tendency to overestimate the occurrence of the high-order thinking activities they would undergo in college. This phenomenon shows that these students possessed a deep understanding of the high level activities expected of them in college.

For example, 39% of the students participated in class discussions “often” during the senior year of high school, 32% did so “very often”. Furthermore, 38% of the respondents

predicted that they would participate in class discussions “often”, and 44% predicted that they would do so “very often” in the coming year (BCSSE, 2012). Thirty-four percent of students participated in class discussions “often” and 21% did so “very often” during their freshman year of college (NSSE, 2013). Ironically, 44% did so only “some.” Moreover, the results for class presentations demonstrated a similar trend. Thirty-seven percent of these students gave class presentations “often”, 34% gave them “some” during their last year of high school. However, the most common prediction was “often”, at a rate of 47% (BCSSE, 2012). To complete the pattern, 46% of the respondents gave class presentations only “some”, and 25% gave presentations “often” during the first year of college (NSSE, 2013).

Unlike other data sets within the surveys, data from Institution Number One demonstrated a need to increase the number of papers and assignments given that require multiple drafts during the last year of high school. During the senior year of high school, 40% of students did so “sometimes”, 36% did so “often”, and 20% turned in multiple drafts “very often” (BCSSE, 2012). In contrast, 29% did so only “some” during their freshman year of college, 28% did so “often”, and 35% submitted multiple drafts “very often” (NSSE, 2013).

The results for collaborative learning activities demonstrated more consistency among the last year of high school frequencies, predicted frequencies, and the first year of college frequencies. During their senior year, 31% worked with other students on projects during class “some”, 43% did so “often”, and 25% did so “very often”. Furthermore, 26% predicted that they would collaborate with fellow students “some”, 41% for the response “often”, and 30% for “very often” (BCSSE, 2012). During their freshman year of college, 30% cooperated with others on projects “some”, 45% did so “often”, and 24% did so “very often” (NSSE, 2013).

The BCSSE respondents from Institution Number One provided subjective responses, such as “quite a bit” or “very much” to the questions about the amount of papers they wrote during their last year of high school. However, these students gave numerical responses such as “one to two” or “three to five” to these same questions on the NSSE survey. Consequently, the researcher encountered a minor difficulty comparing results regarding writing activities for the Institution Number One data sets.

Nevertheless, these results yielded a possible decrease from the amount of short papers (five pages or fewer) and long papers (five pages or more) done during the last year of high school to the amount done during the first year of college. For example, 40% of the students wrote short papers "quite a bit" during their first year of high school and 27% did so "very much" (BCSSE, 2012). Conversely, NSSE data shows that a total of 25% wrote six short papers or more during their freshman year of college. Furthermore, 37% wrote only one or two short papers and 34% wrote three to five short papers during their first year of college (NSSE, 2013). In addition, a similar trend emerged in the results for long papers. For instance, 28% of the students wrote long papers "some", 26% wrote them "quite a bit", and 17% wrote papers more than five pages in length "very much" during the last year of high school (BCSSE, 2012). In contrast, only a combined 15% of the NSSE respondents reported writing three or more papers six to 10 pages in length, and a total of 16% wrote one or more papers 11 pages or longer. Also, 35% of the students wrote one or two papers six to 10 pages in length during their freshman year of college (NSSE, 2013). The aforementioned data reinforces the conclusion that students from Institution Number One studied under teachers who exceeded the expected number of writing activities necessary to prepare students for college.

Moreover, data from Institution Number One demonstrated an increase in the required study time from the last year of high school to the first year of college. However, incoming freshmen predictions of college study time showed consistency with the actual study time needed. During the senior year of high school, the most common amount of study time was one to five hours per week, at a rate of 47%. However, only 13% predicted that they would study for only one to five hours per week in college (BCSSE, 2012). The actual results for necessary study time demonstrate a small decline from the predictions. Furthermore, the students' responses to the other time frames were more evenly distributed. For example, 24% of students studied one to five hours per week, 26% studied for six to 10 hours, 23% studied for 11 to 15 hours per week, and only a combined 31% studied for 16 hours or more per week (NSSE, 2013). Despite the gap in the amount of study time required during high school and that of college, the researcher inferred that the students at Institution Number One understood beforehand that the amount of required study time would increase once they entered college.

Institution Number Two

The researcher concluded from the Institution Number Two data that these students studied with teachers that engaged them in higher-order thinking activities at a lower frequency than the required frequency for the first year of college. The mode answer for most of the critical thinking activities was "some" for the first year of high school (BCSSE, 2014). In contrast, the mode answer was "often" for the majority of those same activities during the first year of college (NSSE, 2014). For example, 45% of students prepared two or more drafts of assignments "some", 30% did so "often", and 9% did so "very often" during their senior year of high school (BCSSE, 2014). During their freshman year of college, the percentages for the response "some" decreased to 36%, and the rate for the response "often" stayed almost identical at 31% (NSSE, 2015). However, the rate of response to "very often" increased to 20%. Moreover, 44% of the students "evaluated what others have concluded from numerical information" (BCSSE, 2014, p.19) "some" during their last year of high school. Thirty percent did this "often", and 8% did so "very often" during their senior year of high school (BCSSE, 2014). The responses from the first year of college followed a similar pattern to the responses to the question about preparing multiple drafts. During their freshman year of college, 33% of students from Institution Number Two evaluated the conclusions of others "some" (NSSE, 2015). The responses "often" and "very often" both yielded 5% increases, to 35% and 13% respectively (NSSE, 2015).

Unlike Institution Number One, respondents from Institution Number Two wrote fewer short papers in their last year of high school than during the first year of college. For instance, 32% of the incoming freshmen wrote three to five short papers (BCSSE, 2014), while 40% of the exiting college freshmen wrote three to five (NSSE, 2015). Furthermore, 28% of high school seniors wrote one or two short papers (BCSSE, 2014), whereas 23% of college freshmen wrote only one or two short papers (NSSE, 2015). In addition, the students from Institution Number Two wrote fewer medium papers and long papers during their senior year of high school than they did during their freshman year of college (BCSSE, 2014; NSSE, 2015). Thirty-three percent of the students wrote one or two medium papers during the last year of high school (BCSSE, 2014), while 46% did so during the first year of college (NSSE, 2015). Also, 13% wrote one or two long papers during the last year of high school (BCSSE, 2014), while 19% did so during the first year of college (NSSE, 2014).

Interestingly, students from Institution Number Two also overestimated the number of papers they would write in college, as did students at institution Number One. For example, 43% of students predicted that they would write one or two long papers (BCSSE, 2014), while only 19% did so in their first year of college (NSSE, 2015).

The results from the hours of weekly studying at Institution Number Two emerged similarly to those from Institution Number One. Once again, the mode answer was one to five hours per week during the senior year of high school, at a rate of 54% (BCSSE, 2014). However, 22% predicted that they would study for six to 10 hours per week in college, and 25% predicted 11 to 15 hours, and 25% predicted 16 to 20 hours per week of studying (BCSSE, 2014). Students from Institution Number Two slightly overestimated their weekly study time. Twenty-five percent studied for six to 10 hours per week, 23% studied for 11 to 15 hours, and 16% studied for 16 to 20 hours per week (NSSE, 2015).

Moreover, students from Institution Number Two also reported data on specific study techniques required for retaining information from college course material. For all three techniques, the frequencies increased during the freshman year of college. During the last year of high school, 20% of students reviewed their notes after class "very often" (BCSSE, 2014), while 37% did so during their freshman year of college (NSSE, 2015). Twenty-nine percent of students identified key information in readings "very often" during their last year of high school (BCSSE, 2014), whereas 42% did so their first year of college (NSSE, 2015). This data shows that students from Institution Number Two studied under teachers that promoted effective study techniques for college coursework, but not at the frequency needed to succeed in college courses.

Recommendations for Future Research and Practice

Based on the results of this study, students from both institutions appear to consider themselves prepared to succeed in the higher-order thinking activities and writing activities, and to utilize the study habits necessary to succeed in college coursework. However, the researcher recommends that high schools across the state of Texas and nationwide continue to increase the amount of critical thinking activities and writing activities performed during the high school years. Due to the fact that students at Institution Number Two reported a lower frequency of those activities than the frequency required for their college courses (BCSSE, 2014), more critical thinking is needed in high school coursework. Furthermore,

the reinforcement of the study techniques mentioned above must increase during the high school years in order to raise the college preparedness of high school graduates.

In order to further assess the college preparedness of today's students, the field needs a study that examines the perspectives of college and university faculty in addition to the student perspectives. During such a study, university faculty members may inform future research on the extent to which beginning college students meet the faculty expectations. Researchers could study recent data from the BCSSE and NSSE reports from subsequent years from each institution of their choice in conjunction with data from the Faculty Survey of Student Engagement (FSSE) from the same academic years.

Furthermore, multi-year studies that track groups of high school students through their senior year of high school and their freshman year of college may provide a more detailed picture of the influence of the high school learning environment on college success. In fact, longitudinal studies that track students from their freshman year of high school through their college graduation would provide a thorough examination of the alignment of high school learning to college learning. Such a study could involve a sample of students enrolled in a certain number of Advanced Placement (AP) courses, and another sample of students not enrolled in AP courses. The researcher could then measure the effectiveness of AP courses in preparing students for university coursework. Another similar study could compare the college success of a group of students from a dual credit program to a group of students that does not participate in the dual credit program.

Due to the increased accountability afforded to Texas high schools through the STAAR testing program (TEA, 2015) and the College and Career Readiness Standards (EPIC, 2009), the researcher recommends future research based on STAAR data. Educational researchers should analyze data from STAAR End-of-Course exams and the college grades of the same group of students in order to evaluate the effectiveness of the two aforementioned programs.

In conclusion, the results of this study demonstrate a positive prognosis for the college preparedness of Hispanic students in the Texas/Mexico border region. However, the education community needs an extensive amount of further research and improved practices in order to raise the college preparedness of not only Hispanic students, but all students throughout the state of Texas and the United States.

REFERENCES

Achieve, Inc. (2009). Closing the Expectation Gap 2009: Fourth Annual 50-State Progress. Retrieved from http://www.achieve.org/files/50-state-2009.pdf

Adamson, F. & Darling-Hammond, L. (2012). Funding disparities and the inequitable distribution of teachers: Evaluating sources and solutions. *Educational Policy Analysis Archives* 20(37) Retrieved from http://epaa.asu.edu/ojs/article/view/1053

ACT, Inc. (2010). ACT High School Profile Report: The Graduating Class of 2010. Iowa City: ACT.

ACT. (2014). The condition of college and career readiness 2013: Hispanic students Retrieved from http://www.act.org/newsroom/data/2013/states/pdf/Hispanic.pdf

Adelman C. (1999). Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment. Washington, DC: US Department of Education.

Adelman C. (2006). The toolbox revisited: Paths to degree completion from high school through college. Washington, DC: US Department of Education.

Amrein-Beardsley, A. (2009). The unintended pernicious consequences of "staying the course" on the United States No Child Left Behind policy. *International Journal of Education Policy and Leadership*, 4(6). Retrieved from http://www.ijepl.org

Angus, D. & Mirel, J. (1999). The failed promise of the American high school, 1890-1995. New York: Teachers College Press.

Attewell, P., Lavin, D., Domina, T. & Levey, T. (2006). New evidence on college remediation. *The Journal of Higher Education*, 886-924.

Barnes, W., Slate, J. & Rojas-LeBouef, A. (2010). College-readiness and academic preparedness: The same concepts? *Current Issues in Education*, 13(4). Retrieved from http://cie.asu.edu/

Barnett, E., Bork, R., Mayer, A., Pretlow, J., Wathington, H., & Weiss, M. (2012). Bridging the gap: An impact study of eight developmental summer bridge programs in Texas. National Center for Postsecondary Research. Retrieved from http://files.eric.ed.gov/fulltext/ED539188.pdf

Beginning College Survey of Student Engagement (BCSSE). (2012). Retrieved from https://web.auburn.edu/ir/assessment/articles/BCSSE_2012_OIRA_Report.pdf

Bettinger, E., & Long, B. T. (2005). Remediation at the community college: Student participation and outcomes. *New Directions for Community Colleges, 129*, 17–26.

College Measures. (2015). *Texas Public Colleges.* Retrieved from http://collegemeasures.org/4-year_colleges/state/tx/compare-states/

Complete College America. (2011). Remediation: Higher education's bridge to nowhere. Retrieved from http://www.completecollege.org/docs/CCA-Remediation-final.pdf

Complete College Texas Report. (2013). Is Texas using game changer strategies to boost college completion? Not fully. Retrieved from http://www.completecollege.org/docs/CCT-low-res.pdf

Conley, D.T. (2003). *Understanding university success.* Eugene, OR: Center for Educational Policy Research, University of Oregon. Retrieved March 6, 2015, from www.s4s.org.Understanding_Success.pdf

Conley, D. T. (2007). The challenge of college Readiness. *The Prepared Graduate, 64*(7), 23-29.

Conley, D.T. (2012). Retrieved from https://www.epiconline.org/college_and_career_readiness_definition

Crisp, A. and Nora, G. (2012). Hispanic Student Participation and Success in Developmental Education. *Hispanic Association of Colleges and Universities* Retrieved from http://files.eric.ed.gov/fulltext/ED537724.pdf

Educational Policy Improvement Center. (2009). *College and career readiness standards.* Austin, TX: University Printing Services

Georgiou, N. (2011). Not Ready for College. *Laredo Morning Times* November 6, 2011, 1-6

Gigliotti, J. (2012). Rice University: Innovation to increase student college readiness. *Continuing Higher Education Review*, 76, 166-174

Glossary of Education Reform. (2015). Retrieved from www.edglossary.org

Hidalgo Independent School District Website. (2015). Retrieved from http://hechs.hidalgo-isd.org/

Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed-methods research: a research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.

Kuh, D. G., Nelson-Laird, T.F., & Umbach, P. D. (2004). Aligning faculty and student behavior: Realizing the promise of Greater Expectations. *Liberal Education* 90 (4), 24–31.

Kuh, D. G. (2007). What student engagement data tells us about college readiness. Association of American Colleges and Universities, 9(1). Retrieved from https://www.aacu.org/publications-research/periodicals/what-student-engagement-data-tell-us-about-college-readiness

Laredo Independent School District Website. (2015). Retrieved from http://earlycollege.elisd.org/pd/early/index.html

Mayes, C. & Trevino, A. (2006). Creating a bridge from high school to college for Hispanic students. *Multicultural Education* 14(2) p. 74-77

McCarthy, M., and Kuh. D.G. (2006). Are students ready for college? What student engagement data say. *Phi Delta Kappan* 87: 664–69.

National Conference of State Legislatures. (2015). Retrieved from http://www.ncsl.org/research/education/improving-college-completion- reforming-remedial.aspx

National Survey of Student Engagement (NSSE). (2005). *Student engagement: Exploring different dimensions of student engagement.* Bloomington, IN: Indiana University Center for Postsecondary Research.

National Survey of Student Engagement (NSSE) Website. (2014). Retrieved from www.nsse.iub.edu/NSSE_2014_Results

National Writing Project. (2011). Retrieved from http://files.eric.ed.gov/fulltext/ED516360.pdf

Newman, F. M. & Associates. (1996). Authentic achievement: Restructuring schools for intellectual quality. San Francisco: Jossey-Bass.

Oakes, J. (2005). Keeping track: How schools structure inequality. (2nd ed.) New Haven, CT: Yale University Press.

State University Website. (2015). Retrieved from http//www.stateuniversity.com/universities/TX/Texas_A_M_International_ University.html

Statistics Solutions. (2015). Retrieved from https://www.statisticssolutions.com/manova-analysis-paired-samples-t-test

Terrell, S. (2011). Mixed-methods research methodologies. The Qualitative Report, 17(1), 254- 280. Retrieved from http://www.nova.edu/ssss/QR/QR17-1/terrell.pdf

Texas Higher Education Coordinating Board. (2015). TEA dual credit FAQ frequently asked questions. Retrieved from www.thecb.state.tx.us/reports/DocFetch

United Independent School District Website. (2015). Retrieved from www.unitedisd.org

United States Census Bureau Website. (2013). Retrieved from quickfacts.census.gov/qfd/.../4841464.html

United States Census Bureau. (2015). Retrieved from www.census.gov

United States Department of Education. (2008b). National commission to study senior year of high school. Retrieved from http://www/findarticles.com/p/articles/mi_puca

Warner, I. (2014). Projections of Texas Population 2010-2050. Houston Chronicle December 11, 2014. Retrieved from http://blog/chron.com/insidepolicy/2014/12/projections-of-Texas-population-2010-2050/

VITA

Miranda Inez de la Garza received her Bachelor of Music Education degree from The University of Oklahoma in 2002. Miranda taught music for six years, and she is currently in her third year as a special education teacher. She entered the Educational Administration program at Texas A&M International University in July of 2013 and received her Master of Science degree in December 2015. Her research interests include college preparedness and the benefits of music education.

Mrs. de la Garza may be reached at 1612 Denmark Lane, Laredo, TX, 78045. Her e-mail is midelagarza@hotmail.com.