Quantitatively Studying the Relationship Between Retention and Completion of an Online Orientation Program

Dissertation Manuscript

Submitted to Northcentral University

Graduate Faculty of the School of Business and Technology Management
in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF BUSINESS ADMINISTRATION

by

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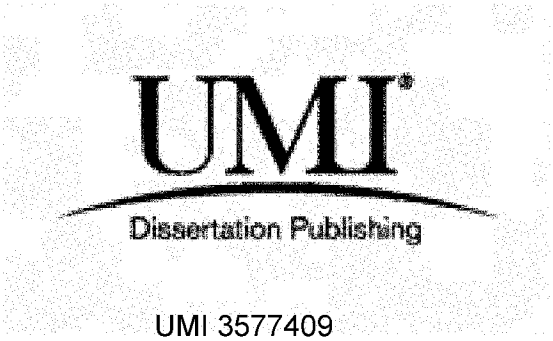
Prescott Valley, Arizona
October 2013



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APPROVAL PAGE

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Abstract

In 2012, funding for many colleges and universities was determined by the graduation rate at the institutions. The problem that was addressed was a business question that many community college officials must solve as low student success rates measured by retention and student grade point average lead to higher dropout rates. The purpose of this quantitative, non-experimental, comparative study was to use existing data to examine whether or not students who completed a college online orientation program had different rates of retention and grade point average (GPA). The population for the study was a cohort of 1,643 first-time full-time and first-time part-time students at one college. The sample was comprised of the entire group of students who did not complete the program (N=499) and a group of students (N=499) who completed the program and were matched to the students who did not complete the program based on the variables of gender, full-time and part-time status, and race and ethnicity. A chi-square test examined average retention rates over a 2-year period for students who did and did not complete the orientation program and found a significant difference for completion, $\chi^2(1, N = 499) = 16.28, p < .05$. A t-test examined average GPA over a 2-year period for students who did and did not complete the orientation program, controlling for race/ethnicity and found a significant difference for completion, $t(997) = 94.72, p < .05$. The findings of this study suggest that online orientation can have a positive influence on student retention rate. Therefore, college administrators may want to make such orientation programs available to students and encourage students to use them. Future research is needed, however, of the effects of online orientation on retention across a wider sample of colleges, universities, students, and time periods.

Acknowledgements

Words can't adequately express my appreciation to all of the people who have supported me in completing this educational journey. I wish to thank Dr. Flora Tydings for encouraging me to begin this journey and for supporting me until the end of this process. Also, I must thank Dr. Terry Wehunt for investing time and energy to discuss the dissertation process, listen, answer questions, and provide support at critical times through this endeavor. I would like to acknowledge Caroline Angelo as the best writer I know and for teaching me so much about writing. I would like to thank Cindy Simmons, Temple Bennett, and Judy Powell for listening and providing positive encouragement. I would like to acknowledge my chair, Dr. Trent Nguyen, and subject matter expert, Dr. Dharmendra Singh, for their guidance, support, and expertise. To my family, I thank my husband and daughter for always listening and sharing their confidence in me. The sacrifices my family have had to make so I could complete this journey will not be forgotten, and I love you, Sterling and Kimberlyn, for all of your support. To my parents I thank you for continuing to support me through this process with unwavering confidence. I consider everyone who I named to be a contributor to the successful completion of this dissertation.

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Chapter 1: Introduction

Community and technical colleges have the challenge of increasing student success as defined by measuring retention rates, which encompass graduation and retention rates (Nitecki, 2011). Administrators are addressing the management issue of retention and graduation rates due to the fact that increasing enrollment alone will not achieve completion goals (Jenkins & Bailey, 2009). At the national level the American Graduation Initiative introduced by President Barack Obama outlines billions of dollars that will be invested in community colleges provided completion goals of graduation and transfer rates are met (Jaschik, 2009). The *Complete College Georgia: Georgia's Higher Education Completion Plan 2012* provides the challenge for the state's two systems of higher education to increase the number of young Georgians who hold college credentials. Member institutions of the state's two higher education systems will be challenged to graduate 250,000 students beyond normal graduation levels to reach the 2020 goal of ensuring that 60 % of all Georgians between the ages of 25 and 34 will have earned college credentials (Complete College America, 2012). Future funding for post-secondary educational institutions will be determined by the outcomes achieved in relation to the number of graduates within colleges and universities.

Background

Community colleges have on average a 27.5% three year college graduation rate, a rate significantly lower than the 55.9% six-year graduation rate for 4-year institutions (IPEDS, 2009). This loss in student enrollment at community colleges leads to a decline in revenue (Vennestra, 2009). Overall, the challenging management issue of retention

and graduation rates must be addressed by studying cost effective supervision of programs (Fowler & Luna, 2009).

A 2-year educational institution in the southeastern United States has a 28% retention rate, and administrators see a modus for improvement by raising graduation and transfer rates (IPEDS, 2009; Athens Technical College Institutional Effectiveness Performance Plan, 2010). With achievement of higher retention and graduation rates, the college can become eligible for necessary program funding as outlined in the American Graduation Initiative (Jaschik, 2009). This research study involved a review of the key construct of the delivery of new student orientation and included a cohort of students divided into two groups. The study was based on existing institutional data where one group had completed the orientation process online, and the other group did not. Completion of an online orientation program served as an independent variable. One group of students completed the online orientation, and the other group did not. Data regarding whether or not students completed the online orientation program was maintained in the college's information system. Students were required to complete each section of the orientation and answer questions during the process in order to progress to the final assessment. Students who completed the online orientation successfully completed an assessment at the end of the program with a required score of 80% and the score was recorded in the college's database. Students successfully completing the online orientation were allowed priority registration. Non-completers of the online orientation program were classified as non-completers by the college if they did not attempt the online orientation and did not successfully complete the online assessment. All students who participated in the online orientation took the assessment at the end of the program.

Students were encouraged by advisement center staff to complete the online orientation program in order to register early.

Administrators on campus will review the results of this study with the focus of raising retention rates and assisting students with problems in order to achieve higher academic performance (Kim, Newton, Downey, & Benton, 2009; Athens Technical College Institutional Effectiveness Performance Plan, 2010). Achieving higher retention rates will allow the college to maintain or improve tuition revenue which is vital to the future success of the college (Nitecki, 2011). As the loss of students equates to a loss in revenue, the results of this study will also serve as a management tool for college administrators (Kim et al., 2009). Chapter 1 contains the elements of this proposed quantitative study, based on the introduction, problem statement, and the purpose of the study. The chapter presents an analysis of the research questions and hypothesis, nature and significance of the study, and definitions are presented.

Statement of the Problem

Managers from the private and public sectors have the challenge of reviewing programs within their organization that address the topics of retention and orientation (Jenkins, 2009; Nitecki, 2011). The problem that was addressed was a business challenge as low student success rates measured by retention and student grade point averages at community colleges lead to higher dropout rates (Vennestra, 2009). The financial implications for educational institutions include the loss of revenue which may lead to the loss of jobs for faculty and the loss of services to students (Hall, 2010). With lack of services, student needs were not met and they dropped out of the institution. With the loss of the paying end-user, the financial losses negatively affect the financial stability of

the organization (Kim, 2010). The goal of this study was to determine if a relationship existed in retention and success rates between students who completed the first year student support program of an online orientation program and students who did not complete the program. The online orientation program was designed in order to address student success as measured by retention rates. Managers will need to review data in order to make adjustments in the support program of online orientation and address the issue of retention and success (Jenkins, 2009; Mbuva, 2011).

Much of the literature has focused on 4-year college population and support programs (O'Gara, Karp & Hughes, 2009; Bailey & Alfonso, 2005). However, during the 2011-2012 academic year, community colleges educated 13 million people of the United States' college bound workforce (AACA, IPEDS Enrollment Survey, 2013) and trained the labor force (Baldwin, 2009; Lolesnikova, 2010). The financial implications for educational institutions suffering the loss of investment in students due to lack of retention was a vital topic to study (Vennestra, 2009).

Purpose of the Study

The purpose of this quantitative, non-experimental, and comparative study was to use existing data to examine whether or not students who completed a college online orientation program had different rates of retention and grade point average (GPA). The results of this research study have been presented in an executive summary for college officials to use to evaluate students who completed a college's online orientation program compared with students who did not complete the program by analyzing retention rates and grade point averages. The format of the college orientation emphasized the importance of online learning as a tool to increase retention by using a video hosted by

YouTube, PowerPoint software, demonstrations on the Captivate software package, and social networking sites (Ebersole, 2008; Athens Technical College Institutional Effectiveness Performance Plan, 2010). The content of the online orientation program included modules on academic support, advisement, work ethics, the student information system, e-learning, financial aid, career services, disability services, library services, student activities, academic study skills, and additional service programs. The assessment included multiple choice questions throughout the online orientation program and a formal assessment at the conclusion of the program. The final assessment included multiple choice questions regarding the content of the various modules of the support programs. This archival study used existing data from incoming first-year full-time and first-year part-time students who remained at the college and from those who dropped out. The data was reviewed after a 2-year period until the student withdrew, was academically dismissed, or graduated. Retention rates and grade point average (GPA) are recorded in the Integrated Postsecondary Education Data System (IPEDS) reports for beginning students and the technical college system's database for each term. A sample was examined that was comprised of students who completed the online orientation process and a group of students who did not complete the orientation process. A chi-square test was used for question Q1 with retention rates as the dependent variable. Participants were coded as "retained" or "not retained". In question Q2, a t-test used to compare the means of the research and comparison group on the variable of calculated grade point average for the same racial/ethnic identities. For example, grade point averages of students of the races and ethnic categories as outlined in the Banner Information System used by the college selected for this study included American

Indian/Alaskan Native, Asian, Black or African American, Hispanic, Unknown, and White. In an effort to control variables that may influence the outcome of the study a matching sample process was used. Full-time and part-time status, gender, and race or ethnic identity were the matching variables that were used for the matching process. The two groups were compared using completion of an online orientation program as the independent variable. Grade point averages and retention status served as dependent variables.

Research Questions

To evaluate student completion of the college's online orientation program and its relationship to academic achievement and retention, the following list of research questions and hypotheses were answered:

Q1: What is the difference, if any, in average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program?

Q2: What is the difference, if any, in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity?

The following hypotheses were generated based upon the research questions:

Hypotheses

$H1_0$: There is no statistically significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

H1a: There is a statistically significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

$H2_0$: There is no significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

H2a: There is a statistically significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

Nature of the Study

This quantitative, non-experimental, and comparative study was used to examine whether students who completed the college's online orientation program had different rates of retention and GPA. The results of this research study were used to evaluate students who completed a college's online orientation program by analyzing retention rates and grade point averages of college students. This research study included existing, archival data from incoming first-year full-time and first-year part-time students at the college. The existing, archival data included information from students who remained at the college after a period of one term as well as dropout rates. The data included the demographic data of part-time students and full-time students. In addition to the descriptive information, this applied study focused on race and ethnicity as a variable as 2-year institutions are challenged to increase retention rates of students of different racial and ethnic identities. The data included all terms for a 2-year period until the student withdrew, was academically dismissed, or graduated. Retention rates and grade point

average (GPA) were cited in the Integrated Postsecondary Education Data System (IPEDS) reports for beginning students and the technical college system's database for each term.

A matched sample of students who completed the online orientation process and a group of students who did not complete the orientation process was examined. Regarding question Q1, an analysis occurred to display the variable of retention and the independent variable of the online orientation program. In question Q2, an analysis of GPA and the variable of the online orientation program were addressed. A bar chart allowed the variables of mean GPA and retention to be displayed. Since the variable of retention was categorical, a nonparametric procedure, the Spearman's rank order correlation coefficient (Spearman's rho) was performed to determine the strength of the relationship of grade point average (GPA) and retention. The calculated grade point average was computed by adding the total grade points and dividing this number by the total number of credit hours the student completed during the duration of his or her enrollment. A chi-square test was used for question Q1 with retention rates as the dependent variable. Participants were coded as "retained" or "not retained". In question Q2, a t-test was used to compare the means of the research and comparison group on the variable of calculated grade point average for subgroups of the same racial or ethnic identities. For example, grade point averages of students of the races and ethnic categories as outlined in the Banner Information System used by the college selected for this study included American Indian/Alaskan Native, Asian, Black or African American, Hispanic, Unknown, and White. These students who completed the online orientation and students who did not complete the orientation were compared. The two groups were

compared using completion of an online orientation program as the independent variable. Grade point averages and retention status served as dependent variables.

Significance of the Study

As a result of this study, college administrators have data regarding the support program of online orientation in relation to retention and GPA. The senior leadership of the college, president and vice presidents, may review this data in order to make determinations that may improve financial conditions at the organization. Recommendations for all types of orientation programs included the need for qualitative and quantitative evaluations in order to determine if student goals were being met (Mullendore & Banahan, 2008). Managers from the private and public sectors have the challenge of reviewing programs within their organization that address the topics of retention and orientation (Jenkins, 2009). The financial implications for educational institutions suffering the loss of investment in students due to lack of retention was a vital topic to study (Vennestra, 2009).

Institutional leaders have to promote the idea that all students have the capability to achieve their goals in the correct settings and the leaders must embrace the task of providing these environments (Engstrom & Tinto, 2008). Employment reports estimate that the requirement for an associate degree will increase twice as rapidly as the number of jobs requiring no college credential (Hickman, 2011). In meeting the nation's need for qualified workers, retention of students is a key factor. In order for educational institutions to gain necessary funding for future growth, higher retention rates need to be achieved (Jaschik, 2009). When students drop out of college, the financial implications for families result in sadness, a loss of tuition dollars, and possible lower earnings, but the

loss of investment to state governments is tremendous. With state revenue resources tightened during harsh economic times, the financial implications for educational institutions were a key focus of many educational institutions.

Managing the issue of retention in educational institutions is a business challenge. Colleges cannot elect to be complacent and wait for the economic conditions to improve. New support programs and initiatives should be developed to combat the low levels of retention and improve academic success. Orientation programs existed in the public and private sectors and were important for educational institutions and private companies. With the implementation of support programs, outcomes should be assessed.

Definition of Key Terms

The following definitions provide clarification of terms used in this study.

Dropout students. For the purpose of this study, a dropout student included any student who enrolled for a term and did not re-enroll the next term with the exception of students who graduated (Hirschy, Bremer, & Castellano, 2011).

Financial aid programs. These federal, state, and local programs provide services to college students who qualify for tuition or monetary awards to assist with education and living expenses. Policies governing these programs focus on fiscal management (Sav, 2012).

Full-time status. For the purpose of this study, full-time status was defined as enrollment in 12 or more quarterly credit hours or 9 semester hours (Athens Technical College Catalog, 2010).

Grade point average (GPA). A grade point average is the result of a student's grades multiplied by points assigned to each grade and then divided by the total credit

hours earned. The grade point average scale occurred on a ratio scale of 0 (lowest range of academic achievement) to 4.0 (highest level of academic achievement). Letter grades had assigned values that were used in the calculation of grade point averages: F was equivalent to 0.0, D was equivalent to 1.0, C was equivalent to 2.0, B was equivalent to 3.0, and A was equivalent to 4.0. Students had term, cumulative, and graduation grade point averages. For the purpose of this study, a student's quarterly GPA was computed as an average of the grades and credit hours earned in all course work taken during a single academic term at the selected college for this study. The cumulative GPA included all grades the student had earned while in attendance, and the graduation GPA included only those classes counted toward the graduation requirements. Credits earned at other colleges, credits completed in learning support classes, and credits earned through the credit-by- examination process were not calculated in the GPA (Athens Technical College Catalog, 2010; Kim et al., 2009).

Integrated Postsecondary Education Data System (IPEDS). The Integrated Postsecondary Education Data System (IPEDS) is a system of interconnected surveys conducted under the National Center for Education Statistics (NCES) of the U.S. Department of Education. According to the Higher Education Act, representatives of educational institutions awarding federal financial aid were required to complete survey information in areas such as enrollment rates, retention categories, graduation rates, and finances (Eighmy, 2009).

Online college orientation. Online college orientation was a program designed to provide information on college programs, policies, and procedures. The purpose of the program was for new students to engage in and learn more about a college. Online

orientation was based on an interactive online format involving short quizzes, YouTube videos, PowerPoint slides, and a final assessment. Methods to obtain support and contact information were included in the online orientation (Clay, Rowland, & Packard, 2008).

Part-time status. For the purpose of this study, part-time status was defined as enrollment in 11 or fewer quarterly credit hours (Athens Technical College Catalog, 2010).

Self-Efficacy. The belief in one's capability to complete or achieve (Bandura, 1997). The theory of self-efficacy occurred from four informational sources: (a) performance accomplishments, (b) vicarious learning, (c) social persuasion, and (d) emotional arousal (Bandura, 1997).

School retention. Retention referred to the continuation of student enrollment from one term to another as well as from initial enrollment to graduation (Poock, 2007).

Support programs. Support programs included a variety of efforts at a college to help students achieve academic success. Support programs at the selected college of this study were college orientation, courses in college success skills, learning support courses in English, reading, and mathematics, academic support center services with free tutoring, online tutoring, student engagement activities, student ambassador programs, early alert academic systems, and advisement center support. These programs were a shift from traditional educational delivery (Heubeck, 2008). Many support initiatives have evolved from online instructional methods (Heubeck, 2008).

Technical College System of Georgia (TCSG). Formerly the Department of Technical and Adult Education, the Technical College System of Georgia (TCSG) governs all technical colleges, economic and workforce development, and adult literacy

programs in Georgia (Koon, 2009). The mission of the TCSG includes educating the workforce to promote economic success in the state.

The Southern Association of Colleges and Schools Commission on Colleges (SACS: COC). The Southern Association of Colleges and Schools Commission on Colleges (SACS: COC) is a regional accrediting agency that sets, reviews, and evaluates educational standards in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia, as well as in Latin America and other international sites. Representatives of these institutions award associate, baccalaureate, masters, or doctoral degrees and strive to meet standards that focus on the needs of students (Veltri, Webb, Matveev, & Zapatero, 2011).

Transfer. For the purpose of this study, transfer was defined as the process through which students exiting from a 2-year college may apply their earned credits toward a credential at a 4-year college or university. The movement from one institution to another created the transfer rate (Anderson, Sun, & Alfonso, 2006).

Summary

Administrators were addressing the management issue of improving retention and graduation rates at colleges due to the fact that increasing enrollment alone have not achieved completion goals (Jenkins & Bailey, 2009). The purpose of this quantitative, non-experimental, and comparative study was to examine whether students who completed a college online orientation program had different rates of retention and academic achievement. The problem tackled, was a business challenge as low student success rates measured by retention and student grade point averages at community colleges lead to higher dropout rates (Vennestra, 2009). This proposed research study

included existing, archival data from incoming first-year full-time and first-year part-time students at the college. A sample consisting of a group of students who completed an online orientation process and a group of students who did not complete the orientation process was examined. A chi-square test was used for question Q1 with retention rates as the dependent variable. In question Q2, a t-test was used to compare the means of the research and comparison group on the variable of calculated grade point average for the same racial/ethnic identities. For example, grade point averages of students of the races and ethnic categories as outlined in the Banner Information System used by the college selected for this study included American Indian/Alaskan Native, Asian, Black or African American, Hispanic, Unknown, and White. The two groups were compared using completion of the online orientation program as the independent variable. Retention status served as the dependent variable. The results of this research study evaluated students completing a college's online orientation program by analyzing retention rates and grade point averages of college students. The need and purpose for the study was established within this chapter; the theoretical framework, research questions, hypotheses, research methods, nature of the study, and significance were summarized; and definitions of key terms were provided.

Chapter 2: Literature Review

The purpose of this quantitative, non-experimental, comparative study was to examine whether students who completed a college online orientation program had different rates of retention and academic achievement. This literature review encompassed theoretical frameworks and research related to an online college orientation program, as well as historical information regarding student orientation programs and the financial implications of these programs. This chapter included a synthesis of research conducted in areas related to support programs and online orientations. In addition, the synthesis of information regarding various studies on factors influencing college students' success was included in the literature review. Finally, a comprehensive review of the literature was presented which supported the need for research of the online student orientation program in relation to student retention and academic success.

Documentation

The literature review search was conducted using online database searches from Northcentral University and GALILEO (Georgia Library Learning Online) from the University of Georgia. The databases used to research the scholarly peer reviewed journals and articles included Annual Reviews, EBSCOhost, EBSCOhost Business Source Complete, EBSCOhost Education Research Complete, ProQuest, and SAGE Journals online. The review of literature pertaining to orientation programs, retention, and academic achievement was divided into nine sections and included a summary section. Research regarding the historical aspects of new student orientation programs provided information regarding the evolution of college orientation programs, and then conceptual framework and theories related to online orientation programs were outlined.

Although this proposed study was an applied topic, theories and models enhanced the foundational reasons as to why the issues of retention and academic success were important to examine. The theory of self-efficacy in relation to retention and academic achievement was included, and school retention models relating to orientation support programs were addressed. Additionally, research regarding the financial implications were examined with an emphasis on the management issues organizational leaders must resolve in order to be successful. In order to address the financial implications, college officials review a wide array of data and information which also includes non-traditional predictors of success. The research provided an opportunity to review controversial issues with studies focusing on non-traditional predictors of student retention which included online technology. Online student orientation programs and online technology research were examined in relation to student retention and academic achievement. Next, research regarding grade point averages (GPAs), a traditional predictor of student success, was included. A review of GPAs of students was important due to the strong relationship with the self-efficacy theory and completion of support programs. In addition to a review of grade point averages, an examination of students in relation to their involvement with the online student orientation program was outlined. In order to synthesize the scholarly material, it was important to begin the review of literature with an historical perspective of new student orientation programs in the following paragraph.

Historical Perspectives of New Student Orientation Programs

This review of the literature began with an historical focus on college orientation programs and how the quality of programs surrounding the students' first year experience can determine their future success (Vennestra, 2009). The college representatives were

responsible for bringing the freshman group together and guaranteeing that each student had the opportunity to achieve an excellent learning outcome (Vennestra, 2009). In order to achieve positive student outcomes, support programs were worthy of examination. New student orientation programs were often offered to promote student academic success and to provide personal growth opportunities (Mullendore & Banahan, 2008). The first student orientation program was held at Boston University in 1888 (National Orientation Directors Association, 2008). The number of orientation programs increased from the late 1800s until the late 1950s at which time orientation programs began to drastically decline to a very small percentage. As the number of non-traditional students increased, orientation programs changed to promote flexibility (Mayhew, Vanderlinden, & Kim, 2009). Many of the orientation and support programs focused on completion of tasks relating to the college experience. Early experiences were linked with student success in regards to academic achievement and retention (Woolsey & Miller, 2009). Support programs such as orientation programs were developed to focus on student preparation, motivation and self-efficacy in some type of capacity (Woolsey & Shepler, 2011).

In examining current day practices, 2-year colleges play multiple roles in the U.S. educational system. These institutions provide training for the workforce, provide instruction, and serve as conduits for student transfers to 4-year institutions (Baldwin, 2009; Kalogrides & Grodsky, 2011). The backgrounds and goals of community college students often differ from the background and goals of students attending 4-year colleges and universities. New student orientation programs often reflected the needs of the students they serve which vary from college to college (Mullendore & Banahan, 2008).

The ever increasing diversity of student population has provided an opportunity for colleges to determine if needs of all racial and ethnic backgrounds were being met (Mullendore & Banahan, 2008). In addition, 2-year colleges served a disproportionate number of academically underprepared low-income students, an increasing number of whom were not native English speakers (Tinto, 2007). Many student retention studies were focused on 4-year educational institutions, rather than community colleges (Alfonso, 2006). Constructing conditions for student success required analyzing the community and the specific type of college system (Engstrom & Tinto, 2008). Students have stated that completion of support programs often bolstered their confidence and promoted the belief in their own abilities to be successful. This confidence leads to engagement in coursework and academic success (Woolsey & Shepler, 2011). Current recommendations for all types of orientation programs included the need for qualitative and quantitative evaluations in order to determine if student goals were being met (Mullendore & Banahan, 2008). An examination of orientation experiences and early college experiences in regards to student success was important to conduct as orientation formats continue to change in order to meet the needs of students (Woolsey & Shepler, 2011). Student affairs professionals had the challenging task of modifying orientation support programs for students in order to achieve successful academic and retention outcomes. The format of support programs varies among educational institutions. The use of technology with the support programs also varies among colleges and universities. Orientation programs have been combined with additional support programs, such as mindfulness programs focusing on achievement functions, to promote learning at the highest level (Howell & Buro, 2010). Thus, the evolution of orientation support

programs will need to continue to occur as student needs change (Woolsey & Shepler, 2011). An increase in studies and information has occurred regarding student success with emphasis on student support programs, but there was a lack of information regarding 2-year colleges (Pearson, 2010). College students usually drop out during the first year, so the importance of orientation and support programs being implemented prior to beginning college and during the early part of the first term was becoming more common among post-secondary institutions (Brown, 2012). Many students reported experiencing stress prior to and during their first year of college and stated that orientation and support programs helped to relieve stress (Barry, Hudley, Kelly, & Su-Je Cho, 2009). College administrators were changing orientation formats in order to meet multiple needs of students (Barry et al., 2009). In regards to orientation and support programs, an emphasis was being placed on promoting a connection between the way students achieve personal outcomes or performance (Corkett, Hatt, & Benevides, 2011). Some orientation programs were just intended to be for informational purposes while a goal of some college administrators was to promote opportunities for students to develop the positive relationship between educational strategy, such as completion of an orientation program, and academic achievements (Joo, Seo, Joung, & Lee, 2012). This led to the framework and theories related to student success as they were important to review when analyzing an online orientation program in order to gain a firm understanding of positive and negative influences of retention.

Conceptual Framework and Theories Related to Online Orientation programs

The models and theories of Bandura, Bean, Tinto, and Astin supported the study of an online orientation program in relation to retention and academic success. The self-

efficacy theory, embedded as a component of the social cognitive theory, emphasized the importance of performance achievements (Bandura, 1997). People who develop self-regulatory skills complete academic programs and assignments by possessing the cognitive skills to make academic information more relevant and interesting (Bandura, 1997). Students who did not possess high levels of self-efficacy to complete academic programs or work were susceptible to anxiety, leading to negative performance. In addition to Bandura's theory, the Student Attrition Model with specific emphasis on retention and motivation states that students were motivated to succeed academically through multiple types of support programs (Bean, 1982). Additionally, Tinto's model of student attrition which focused on student departure (DeWitz, Woolsey, & Walsh, 2009) and Tinto's theory of integration were a part of the theoretical framework of this research study. The theory of integration focused on promoting support programs to integrate students in order to decrease the number of students who drop out (Tinto, 1993). Also, the Student Attrition Model with specific emphasis on retention and motivation stated that students were motivated to succeed academically through multiple types of support programs (Bean, 1982). The models and theories of Bandura, Bean, Tinto and Astin provided a theoretical framework to support the applied research study of an online orientation program in relation to retention and academic success.

In addition to analyzing the community college system, it was important to focus on student achievement by examining the social cognitive theory and focusing on the component of the self-efficacy theory. Self-efficacy beliefs focused on performance and accomplishing tasks, such as the completion of a college online orientation program (Bandura, 1997). Self-efficacy theory focused on performance and how beliefs promoted

expectations of outcomes (Bandura, 1997). The self-efficacy theory, embedded as a component of the social cognitive theory, emphasized the importance of performance achievements (Bandura, 1997). People who developed self-regulatory skills completed academic programs and assignments by possessing the cognitive skills to make academic information more relevant and interesting (Bandura, 1997). Students who did not possess high levels of self-efficacy to complete academic programs or work were susceptible to anxiety, leading to negative performance. A sense of control gained through completion of support programs diminished anxiety and led to increased confidence (Bandura, 1997). Perception of their abilities as inadequate changed when students completed assignments or programs in a successful manner as confidence levels increased and students who perceived an increase in their efficacy belief may also have increased their belief in their capability (Bandura, 1997). Therefore, students who completed an online college orientation program may develop a greater sense of confidence regarding their future academic assignments and abilities. Conversely, if performances were met with negative outcomes in support programs, future efforts may be perceived with a negative attitude. As students gained increasing knowledge or experience through performance activity, a strong sense of mastering challenges occurred (Bandura, 1997). Therefore, college students who completed an online orientation program may possess a positive perception regarding future academic challenges. It was also important to note that high self-efficacy levels did not always equal high academic achievement; the student had to possess knowledge and skills gained from completing the task (Corkett et al., 2011). Therefore, the completed task by the student may lead to higher self-efficacy levels that in turn lead to academic achievement.

In addition, providing valuable framework for online orientation programs was the Student Attrition Model with specific emphasis on retention and motivation (Bean, 1982). The initial model was developed in 1980 and focused on employees. Bean's Model of Student Departure focused on student perceptions and interactions with educational institutions (Sparkman, Maulding, & Roberts, 2012). The theory stated that students were motivated to succeed academically through multiple types of support programs (Bean, 1982). A study of university freshmen, conducted by Bean, focused on intent to leave, value of the degree, choice, institutional loyalty, grade point averages, course content, educational goals, major and career selection, opportunity, and family approval (Bean, 1982). Bean suggested that these variables were the major reasons students drop out of college. As a result, college orientation programs were expected to provide part of the necessary academic support needed for success. This practice has continued to progress but varies by institution regarding the type of orientation programs. Bean's assertion was that colleges and universities can influence the outcome of whether students remain enrolled in the institution (Bean, 1981). Later Bean revised his model stating that the student was largely responsible for participating in the programs that educational institutions provide. In Bean's model a common thread regarding academic success focused on academic integration and intensity (Hickman, 2011). Regardless of whether the institution was responsible for developing programs or the student was responsible for participating with the programs, retention and persistence were often linked to student success (Sparkman et al., 2012). These factors influencing persistence may be addressed in orientation and support programs. The strength of the study that focused on the importance of programs and services for college students was also

supported by Tinto's model of student attrition which focused on student departure (DeWitz, Woolsey, & Walsh, 2009). Limitations of this study included that only one measure was used in the study and that study participants were largely female (DeWitz et al., 2009). Tinto has stated the majority of research in student persistence focuses on large university institutions and has called for more research to occur at the college level (Brown, 2012). Additionally, the theory of integration focused on promoting support programs to integrate students in order to decrease the number of students who drop out (Tinto, 1993). Tinto's model stated that the expectations of undergraduate school prior to beginning his or her coursework combined with individual aptitude may have an impact on whether the student may persist at the educational institution (Brown, 2012). Providing opportunities for preparation in order to achieve success involves adjusting to meet the needs of the student population through various student support programs and educating students about policies and opportunities to engage in activities at the college. Two-year colleges were focused on meeting student needs but often faced challenges as students who attended these institutions often work, have families, and often commute rather than live on campus. Providing non-traditional students with effective support programs was challenging because in the past, programs often provided one format for all students. Meeting the various needs of students in a manner that results in successful outcomes was the desire of educational institutions in order to promote student success and achieve positive retention levels. Tinto's model focused on pre-college expectations and stated that multiple variables regarding the college experience such as classroom interactions, support programs, and establishing relationships or connections to the college affect persistence rates (Brown, 2012). Tinto focused on academic integration

and emphasized the importance of clear college policy and standards. The importance of students meeting the requirements of the educational institution and socially integrating within the college were linked to academic success (Coll & Stewart, 2008). Tinto's departure model outlined academic integration as one of the reasons students decided to stay in college (Schudde, 2011). Additional studies completed by Stupinsky, DeAngelis, Garton, Dyer, and King also strongly supported Tinto's model and found that self-perceptions regarding ability, and learning styles promoted academic success (Brown, 2012). Thus, the perception a student has regarding college life may influence the outcome of academic success and retention.

Furthermore, the developmental theory of student involvement that provided a relationship between students exerting efforts and retention (Astin, 1977, 1985). Astin's work focused on raising retention rates in relation to student efforts while performing academic work. Creating programs that promoted the belief that students performed well academically due to a performance achievement or the belief that they will academically succeed was important for academic achievement. Astin's developmental theory included the importance of student involvement with academics, faculty, and peers (Sparkman et al., 2012). Astin's work focused on identifying issues that affected student retention, and he stated that the higher amount of student effort would lead to academic achievement and retention (Sparkman et al., 2012). Students with higher confidence levels were more likely to graduate from college than those who had low levels of confidence (Hsieh, Sullivan, & Guerra, 2007). Astin also pointed out that students must be able to transition from high school to college in order to persist through college and included the importance of positive student experiences in regards to positive outcomes

(Sparkman et al., 2012). Later, Astin conducted a study at the University of California at Los Angeles that yielded results indicating students with higher GPAs were more likely to graduate sooner as compared to students with lower GPAs (Brown, 2012). The strength of this study focused on GPA and included high school GPA and college GPA as a predictor of academic success that ultimately resulted in graduation or completion. In relation to student confidence levels, an examination of retention and support programs was important to undertake in order to understand the possible influences these initiatives had on student success at universities and colleges.

Retention and Support Programs in Relation to Self-Efficacy

Community colleges offered support services to increase opportunities for student success and to develop persistence skills that enabled students to integrate into the college environment (Bailey, Alfonso, & Scott, 2005). Study findings also included weaknesses in the community college system in regard to implementing services that prepared students for occupations combined with services that provided academic success opportunities. Limitations of the study included a lack of research to evaluate community colleges as the emphasis was on 4-year college population. The involvement in these service programs has been connected with many positive results (O'Gara et al., 2009). A qualitative study of students at two community colleges indicated that students desired consistent, reliable, and timely information delivered in a user-friendly format (O'Gara et al., 2009). Students were interviewed at two urban colleges and then interviewed again six months later to determine if support programs made a positive difference in students' academic success rates. The results indicated a positive impact in relation to student support programs, such as the orientation program and the use of technology. The need

for additional study of support programs in relation to retention and academic success was referred to in the study. Therefore, the strength of the quantitative study was the continued examination of student support programs over an extended period of time. An individual's level of personal accomplishment may have a greater impact on self-efficacy as compared to verbal influence (Corkett et al., 2012). Support programs designed to improve retention and academic commitment can be evaluated in terms of fit, integration, and commitment (Tinto, 2006). The need for increased student retention models was evident in order to effectively analyze student outcomes and retention rates (Weng, Cheong, & Cheong, 2010). Public institutions in particular were held accountable at an even higher standard than private organizations (Weng et al., 2010). In a study by Woolsey and Shepler (2011), multiple support programs were adjusted to meet the diverse needs of the student population and the outcomes of programs were measured to ensure that various student population were being served. First generation students were identified as needing more academic preparation and development of confidence (Woolsey & Shepler, 2011). This modification to reach and support the various student population may include the use of online technology and performance achievements. Students with higher self-efficacy participated and often persisted longer when faced with academic challenges (Bandura, 1997). Promoting support programs with formats that were welcoming to all students was important as some students, such as first generation college students, stated that students seemed to have a clique mentality, and they often felt like outsiders (Woolsey & Shepler, 2011). Therefore, creating support programs that promoted a level academic field was important to the various student population, and the need to increase opportunities for performance achievements was vital for student

success. For instance, in a study of college students in the field of science and engineering, a higher level of confidence was found in relation to completion of academic goals (Weng et al., 2010). The higher confidence levels were linked with goal setting and achievement. A positive relationship to graduation rates may occur between students having higher self-efficacy levels and academic integration (Weng et al., 2010). The subject of low confidence levels was important to examine in the area of retention and academic achievement. The social cognitive theory outlined self-efficacy as a self-belief regarding one's abilities to perform and achieve outcomes (Bandura, 1997). Researchers classify self-efficacy into the multiple types of academic self-efficacy, teacher self-efficacy, and collective self-efficacy (Joo, Seo, Joung, & Lee, 2012). Academic self-efficacy was increased when the learner focused on strategies, concepts, and completing processes, which helped the learner retain the material and continued to promote successful completion of future tasks (Joo et al., 2012). Students completing tasks may develop higher levels of self-efficacy with each performance achievement. Student self-efficacy levels have been linked to academic performance, persistence, and career choices (Weng et al., 2010). Students with high levels of academic self-efficacy achieved their goals as they focused on setting objectives and completing tasks, while students with lower self-efficacy levels avoided these assignments and may have felt helpless (Joo et al., 2012). Students with higher self-efficacy levels viewed performance tasks as positive challenges instead of viewing these challenges as negative requirements (Weng et al., 2010). The positive results in higher education regarding self-efficacy and tasks also occurred in business organizations. Orientation programs were considered a positive tool in increasing employee morale, performance, and productivity, while also lowering

stress levels associated with starting a new job (Dean, Saunders, Thompson, & Cooper, 2011). The possible link between student affairs orientation and employee orientations has not been heavily studied, but the topic of educational and organizational commitment as measured by retention of employees and students was identified as a major challenge (Dean et al., 2011).

Regarding retention theory, Bean focused on students' attitudes toward their institutions in relation to staying in or leaving the college or university (Bean, 1982). Motivation to learn was linked to retention rates and academic achievement. The retention theory stated that institutional experiences of students, such as completing a support program, led to beliefs of persistence (Bean, 1982). When students had confidence in their abilities, motivation levels rose (Hsieh et al., 2007). The student interactions and the completion of objectives may have led to higher confidence levels and greater satisfaction with the educational experience (Sparkman, Maulding, & Roberts, 2012). Support programs at educational institutions may increase motivation and self-efficacy levels, thus improving retention rates by promoting academic achievement among students. Bean later called for more research in the area of orientation programs and first year seminars along with attendance policies, teaching practices, grading methods, and academic advising (Sparkman et al., 2012). Bean highlighted that many students departed one educational institution and entered another institution, and when this occurred, these students should not have been included in the drop-out category. In regards to support programs and orientation program outcomes, many institutions have studied their own data. An emphasis on the first-year of college and support programs has occurred at many colleges, and these programs often do not

carry over into the second year. However, the need for second-year programs was also important for retention and academic success (Sanchez-Leguelinel, 2008). Students were committing to a major during their second-year at a 4-year institution or finishing a 2-year degree at a 2-year college. There was often a decrease in motivation during the second-year experience for college students, and dissatisfaction levels were often high during this time period (Sanchez-Leguelinel, 2008). The content of support programs and orientation programs might have been revisited during this time in order to motivate students. Orientation programs and future planning support programs were recommended during the second-year experience and emphasized the need for orientation programs in relation to retention and academic success (Sanchez-Leguelinel, 2008). Additional recommendations in the study by Sanchez-Leguelinel (2008) included the evaluation of these support programs in order to determine outcomes and make improvements. The need for program outcome reviews was important to examine, and a need also existed for independent studies to be conducted (Sparkman et al., 2012). Astin found that students exerting effort in orientation, support programs, and academic work were invested in the college, and this feeling of investment resulted in a positive relationship with retention (Sparkman et al., 2012). Orientation support programs in relation to school retention were important to study in order to enhance content and adjust the content as needed. Therefore, the examination of school retention and models related to orientation support programs was important to review.

School Retention and Models Related to Orientation Support Programs

The study of retention and grade point average in relation to support programs was important as half of college students left before beginning their second year (Morrow &

Ackerman, 2012). Students departed college for various reasons, and Vincent Tinto's model of integration focused on academic challenges, adjustment issues for students, and poor institutional fit (Morrow & Ackerman, 2012). Support programs were needed for student success (Engstrom & Tinto, 2008). There was pressure to have support programs that resulted in measurable outcomes such as academic success and increased graduation rates (Coll & Stewart, 2008). To achieve an increase in student achievement, educators had to understand that success was not the sole responsibility of students. Students' experiences and involvement in support programs and orientation programs during the first few weeks of their attending a college campus was related to persistence at that college (Morrow & Ackerman, 2012). Thus, the theory of student integration focused on initial college support programs as well as the relationships forged between the student and the faculty member once the student was in the classroom. Tinto's integration model later included phases of adjustment, transition, and isolation, and orientation programs were devised to address these specific stages (Sparkman et al., 2012). In addition to the integration model, Tinto also focused on the model of student departure with emphasis regarding how college officials can prevent students from leaving educational institutions (Tinto, 1993). Tinto has referred to influence in the development of his models and theories to Arnold Van Gennep (Tinto, 1993). Van Gennep's work focused on students transitioning from key stages (Tinto, 1993). In stages outlined by Van Gennep, students transitioned and interacted in new ways with each new surrounding or involvement with a new academic institution (Tinto, 1993). Tinto's model of integration focused on formal and informal performance achievements. Support programs such as online orientation programs can provide opportunities for students to have successful performance

achievements. Support programs and interventions have had positive influences on college students' sense of academic purpose and result in higher student retention rates (DeWitz et al., 2009). The support programs influenced students in developing a connection with the college compared with students who did not have a relationship and decided to drop-out (DeWitz et al., 2009). The participation in and completion of support programs such as orientations created a sense of academic achievement and fostered a belief of belonging that affected the intention to persist (Morrow & Ackerman, 2012). Therefore, it was important to develop, analyze, and continuously adjust support programs such as online orientation programs at colleges and universities. Representatives of organizations needed to continue to develop formats through which students gained knowledge. Classroom training support programs have had limitations in regards to the students' ability to remember information (Dean et al., 2011). Therefore, it was important to develop orientation support programs where students could return to the material or have an incentive to continue to review pertinent information each term. The need to tailor the programs to a diverse student population was also important as 2-year educational institutions have many first generation students. Also, 2-year institutions have more students who commute to college or who may have family obligations. Institutional leaders have had to promote the idea that all students have the capability to achieve their goals in the correct settings, and the leaders must embrace the task of providing these environments (Engstrom & Tinto, 2008). Orientation programs have proven effective for students to develop successfully in the academic realm. College orientation programs were important in order to learn the intellectual aspects of the college and to become familiar with the institutional policies and procedures (Fowler &

Boylan, 2010). Also, a strength of the study that focused on support programs included findings that orientation programs provided opportunities for students to integrate and develop a sense of commitment to the institution (DeWitz et al., 2009). Retention was a key factor in educational institutions gaining necessary funding for future growth (Jaschik, 2009). College orientation programs vary from institution but were usually designed to assist students in achieving a successful transition (Perrine & Spain, 2009). Research regarding orientation programs and retention at times included a focus on student attitudes and knowledge instead of measures of retention (Perrine & Spain, 2009). In regards to the studies focusing on retention data, there have been mixed results depending upon variables studied and the specific institution (Perrine & Spain, 2009). Issues influencing retention programs at various institutions may have included the location and size of the institution (Williams & Luo, 2010). Students from rural communities have been identified as sometimes having additional challenges in the areas of academics, social integration, and financial stability (Williams & Luo, 2010). In a longitudinal study, the location of a student's home city identified as rural in relation to a university location had a statistical significance regarding retention when combined with additional orientation support programs (Williams & Luo, 2010). In an additional longitudinal study, the college's orientation program was identified by students as assisting with adjustment to college life, but overall results did not indicate an increase in retention rate outcomes (Perrine & Spain, 2009). When students dropped out of college, the financial implications for families resulted in sadness and a loss of tuition dollars, but the loss in investment to state governments were colossal. In order to adjust to college life, a study recommended routine data collection by institutions and the development of

support programs to address the needs within the specific educational institution (Boylan, 2009). Orientation programs combined with support programs specifically geared towards developmental students were important in addressing the issue of persistence (Fowler & Boylan, 2010). With developmental coursework focused on students' academic issues and orientation programs focused on motivation, commitment, confidence, and performance achievements, the combination of programs may be effective in addressing retention rates (Fowler & Boylan, 2010). Students placed in developmental coursework were found to have incompletion rates of completing sequence courses at 60% to 70% (Bailey, Jeong, & Cho, 2008). In a study conducted by Fowler and Boylan (2010), students having clear expectations, mandatory orientation, intrusive academic advising, or developmental coursework education persisted at higher rates as compared to students who did not (Fowler & Boylan, 2010). Strengths of the study included that it was conducted at a 2-year college and was conducted during the 2003-2004 academic year and then again in 2008-2009 during the fifth year of the program focusing on retention rates and developmental education (Fowler & Boylan, 2010). The limitations of the study included that a single educational institution was studied, so researchers should be careful not to generalize the results but replicate the applied study. Retention rates and academic success were important to analyze in order to enhance programs that may support students in achieving goals. The higher retention rates that occurred with participants in the study by Fowler and Boylan (2010) were worthy of examination as educational institutions were challenged to increase student learning and achieve higher success rates. Administrators in educational institutions were also confronted with effectively addressing students who were identified as at risk of not

graduating in order to assist students and prevent drop-out rates. With state revenue resources tightening in the current harsh economic times, the financial implications for educational institutions were a key focus of the executive leadership at these institutions.

Financial Implications

Retention and academic success in educational institutions were important for the financial condition of schools and was considered a major management issue that must be addressed (Mbuva, 2011). Student departures significantly lower college revenue and lead to a loss of investment in the student (Vennestra, 2009). Complete College America, a national nonprofit organization, cites that between 1970 and 2009 college enrollment has doubled, but the graduation rate has stayed the same. The nonprofit organization's leaders stated that access has increased but not completion rates (Complete College America, 2012). The cost to recruit students was higher than the cost to implement programs that retained students (Fike & Fike, 2008). A lower college graduation rate may also have affected how prospective students perceived the quality of education at the institution. Diminishing enrollments caused by attrition was one of the most damaging economic influences on educational organizations and may have resulted in lower earnings for students who failed to complete degrees that were necessary for jobs (Hickman, 2011). For example, with today's economic challenges, the need for higher level technical training and the continual need to gain additional education was necessary to address the technological advances (Krieger, 2011). With the harsh economy, many educational institutions have endured hiring freezes, employee layoffs, budget cuts, and loss of services to students. More than 20% of the working adult population totaling 37 million people have started a job but have not completed a degree (Complete College

America, 2012). More than 70% of young Americans enrolled in post-secondary education and training within 2 years of graduating high school and only half of those pursuing a 4-year degree full-time finished in six years, while only two in ten students pursuing an associate degree full-time graduated in three years. The pressure on educational institutions was at an all-time high in recent years as legislators were scrutinizing spending and not wanting to raise taxes. Federal and state funds totaling 9.1 billion dollars from 2003 to 2008 were spent on students who dropped out of college after one year, so reviews of institutional policies were important when attempting to correct the issue of retention (Lloyd & Eckhart, 2010; Schneider, 2010). Taxpayers were not satisfied with results of retention rates in college. Federal aid for college students has been funded by taxes and drop out students were sometimes viewed as a poor investment. Decisions by legislators and an insistence on governmental accountability impacted revenue amounts that public educational institutions received in order to operate (Fike & Fike, 2008). The financial implications regarding retention issues for public educational institutions were parallel to retention issues in the private sector. For example, in the field of nursing, orientation programs have been developed for recent registered nurse graduates (Friedman, Cooper, Click, & Fitzpatrick, 2011). Hospitals developed orientation programs for recent graduates to combat average retention rates of 25% to 64% as the cost of losing employees was significant (Friedman et al., 2011). After implementing the orientation program and studying the increased retention and decreased turnover of recent graduates, it was determined the orientation program generated a cost savings of $1,367,100 annually for two hospitals (Friedman et al., 2011). Retention was compared between two groups of two hospitals, and statistical tests were conducted to

determine if statistical differences occurred (Friedman et al., 2011). Public and private sector institutions were becoming merged in regards to funding and financial suppliers (Luke, Kearins, & Verreyenne, 2011). Despite the recent, difficult, national economic conditions, certain employment sectors have increased job opportunities, such as in the field of nursing (Friedman et al., 2011). Managing the issue of retention in educational institutions has been a business challenge in the past and continues to be a current issue to resolve. Colleges cannot elect to be complacent and wait for the economic conditions to improve. A challenge from President Obama to develop initiatives to promote student completion has been issued, and researchers have identified the importance of continual enrollment (Hickman, 2011). In order to keep students enrolled and progressing, new support programs and initiatives should be developed to enhance the low levels of retention and improve academic success. Orientation programs existed in the public and private sectors and were important for educational institutions and private companies. Even though accountability was high in public institutions, private colleges and universities have had a high dependency on tuition dollars raised by enrollment to operate in an effective manner. At a small institution, tuition revenues comprised 80% of operating budgets, and the need to enroll and retain students was vitally important to the overall financial condition of the institution (Vander Shee, 2008). Private educational institutions needed enrollment for tuition but also needed to retain students in order to sustain revenue. Enrollment management offices incorporated retention strategies as a component of overall programs (Vander Shee, 2008). In a study conducted to compare 2-year for profit colleges and 2-year nonprofit public colleges, low student graduation rates were mentioned as inefficient practices by both sectors (Sav, 2012). The loss in

revenue not only resulted in financial implications for educational institutions, but also had direct implications on student income. Graduates of 2-year and 4-year colleges and universities made significantly higher salaries as compared to students who dropped-out and departed the institution (Kalogrides & Grodsky, 2011). When students departed college without a degree, the financial burden of lost tuition was significant (Kalogrides & Grodsky, 2011). However, when students persisted, salaries were often higher and graduates from 2-year institutions often transferred on to a 4-year university. The financial implications of community college students who graduated or transferred to 4-year universities were positive (Kalogrides & Grodsky, 2011). Additionally, 2-year institutions often served as the secondary plan for students departing 4-year institutions without achieving a degree (Kalogrides & Grodsky, 2011). Two-year institutions were often recognized for students to transition from high school, earn an associate's degree, and then transfer on to a 4-year institution. However, 2-year institutions also served students who failed to persist at 4-year institutions (Kalogrides & Grodsky, 2011). Attainment of a higher education degree often resulted in the employee earning a higher salary due to an increased demand for skilled workers (Goldin & Katz, 2008). Also, students who leave 4-year institutions have had much higher debt due to higher tuition costs as compared to students departing 2-year institutions. (Kalogrides & Grodsky, 2011). One in five students who departed 4-year institutions left with debt, while only one in twenty students who did not persist at 2-year institutions were in debt upon departure (Kalogrides & Grodsky, 2011). With the implementation of support programs, outcomes should be assessed to ensure effectiveness.

Non-Traditional Predictors of Student Retention

Traditional predictors of success such as grade point average (GPA) and Scholastic Aptitude Test (SAT) scores were addressed in the preceding sections but since some scholars have indicated these variables only account for 25% of academic performance additional research regarding predictors of success was warranted (Sparkman et al., 2012). Predictors regarding student success included the completion of remedial math and writing courses (Fike & Fike, 2008). The completion of remedial courses was essential for students to progress but also indicated future success rates in relation to retention and graduation rates. Additional predictors of student success included college students receiving financial aid (Fike & Fike, 2008). Students who had greater financial aid needs also had higher dropout rates (Fike & Fike, 2008). The number of term hours a student enrolled in was directly related to the overall financial aid award package received and was also highlighted as a predictor of student success (Fike & Fike, 2008). Additionally, parental income assisted students in their overall college experiences as students often experienced stress over financial concerns, particularly if additional resources were needed for success, such as funds to pay for tutoring (Kalogrides & Grodsky, 2011). Lower tuition costs at a 2-year institution may also serve as a predictor of retention as many students entered college academically underprepared and had to pay tuition for remedial or provisional coursework, thus lengthening the amount of time the student paid tuition (Kalogrides & Grodsky, 2011).

First generation students have been identified as having higher instances of dropping out of college (Woolsey & Shepler, 2011). For example, a longitudinal study found that students enrolling in post-secondary education had a 46% graduation rate as

compared to 24% of first generation students (Woolsey & Shepler, 2011). The first generation students may be less prepared academically and socially as first generation students have indicated they receive less support regarding their decision to attend college than non-first generation students (Woolsey & Shepler, 2011). First generation students have identified the need for support programs such as orientations focusing on student integration (Woolsey & Shepler, 2011).

Further research has indicated a need for study of nontraditional predictors of success at 2-year institutions (Sparkman et al., 2012). Limitations of studies in the area of retention included many institutions conducting their own research and not being focused on national data (Sparkman et al., 2012). A controversial variable of emotional intelligence relating to skills needed to succeed has been named as a non-traditional predictor of student success, but more research was needed in order to determine the effect of emotional intelligence with retention (Sparkman et al., 2012). A limitation in this study regarding non-cognitive predictors of student success included that not all incoming students participated in the study as it was optional and participants self-selected (Sparkman et al., 2012). The student population may not have represented the entire incoming student views and since a matching sample wasn't used there could have been additional variables that influenced the study outcomes.

Student commitment was a non-traditional predictor of student success and may be measured by student confidence level, leaving home to attend college, and enrollment status. Students who knew they would be attending college during their high school experience as compared to students who decided upon graduation that they would attend college usually performed better academically. College students who lived on campus

sometimes persisted at a higher level than students who lived at home. Social integration may serve as a factor for students who did not live on campus. Finally, students taking a full load were found to be more committed than students who had a part time schedule (Kalogrides & Grodsky, 2011). Full-time students were often identified as self-regulated learners who had set goals (Howell & Buro, 2010). The goals were often related to achievement of performance tasks and were more closely associated with adaptive behaviors that allowed students to persist at a higher rate than other students (Howell & Buro, 2010). Students who set goals were more likely to engage in support programs and performance opportunities and had more positive academic outcomes (Howell & Buro, 2010). Retention studies have found a direct relationship between academic success and retention and transfer with indirect links to pre-college educational development (Allen, Robbins, Casillas, & Oh, 2008). A study with 6,782 students from 23 universities indicated a relationship between academic self-discipline and retention and transfer (Allen et al., 2008). A strength of this study included the number of participating institutions and strong student sample size. Students who were motivated by social interaction and through the completion of performance tasks had higher self-confidence levels and achieved academic success (Allen et al., 2008).

Additionally, the use of technology was mentioned as a predictor of student success but a need for additional research in this area was stressed (Fike & Fike, 2008). Missing data were highlighted as a limitation of this study particularly in the area of student information regarding online technology. The issue of technology related to user capability and also to access. Expanding the opportunities for students to participate in programs was a key challenge which may lead to the enhancement of retention or

academic success. Often the challenge to increase educational opportunities can be met through the use of online technology when traditional forms of offering education has not occurred.

Online Technology Related to the Online Student Orientation

The use of online technology was expanding as evidenced by the nearly 3.5 million students, or approximately 20% of the 17 million students in the United States, enrolled in a least one online course for the fall 2006 semester (Ebersole, 2008). Technology usage among college students was increasing at significant growth rate levels as indicated from the time period of 2002 to 2010, with the number of students enrolled in at least one online course increasing by 300% (Allen & Seaman, 2012). For example, in 2001, there were 1,336 students enrolled in one of the community colleges in the state of Kentucky who participated in online courses as compared to 23,800 in 2007 (Krieger, 2011). In addition to increased access, online technology provided the opportunity to participate in programs that offered support for academic success (Ebersole, 2008). When students have had the opportunity to learn in the manner in which they most successfully connected with the topic, their capacity to complete their educational goals at a rate suitable to their circumstances was enriched (Ebersole, 2008). For students who embraced technology, the online orientation program may be viewed as a positive way to be engaged and participate in a support program.

Online technology can provide access to information in a timely manner and help students overcome obstacles that would limit their involvement in college programs. Students of different racial and ethnic identities have stated that they often felt more secure interacting in an online format where race and ethnicity was unspecified

(Ebersole, 2008). Students of different racial and ethnic identities have also noted that organizational obstacles such as unfriendly campus environments raised uneasiness and contributed to decisions to leave school (Love, 2009). In classroom experiments regarding an online ethical game at Arizona State University and the Rochester Institute of Technology, student groups were found to be more engaged than they would have been using conventional approaches (Seager & Selinger, 2012). The findings of the experiments through quantitative research concluded that even though students worked in isolation, the impact of the students' online program resulted in a learning environment that went beyond the boundaries of geographical regions in order to achieve the necessary work. E-mail and other forms of online correspondence have been shown to facilitate student success by providing access to information (Liu, Gomez, & Cherng-Jyh, 2009). The quantitative study focused on online learning and found that access facilitates students' success but neglected to address the question of whether online support programs limited the personal relationships that developed between students and college personnel (Liu et al., 2009).

Online technology has allowed access for students who had not attended face-to-face courses due to a variety of social and demographic reasons (Yang, Cho, Mathew & Worth, 2011). Online learning programs have expanded at an extremely fast rate at educational institutions (Yang et al., 2011). There were conflicting views in regards to online educational programs as compared to face-to-face courses. For instance, a recent comparative study found online students had fewer interactions with fellow students and studied less (Pigliapoco & Bogliolo's, 2008). However, additional research indicated students found online education and use of technology to be more favorable because it

allowed all students to participate (Yang et al., 2011). The mixed results in studies regarding online technology highlighted the importance of studying outcomes in order to determine effectiveness and adjustments that program managers may need to make to have successful programs.

The importance of using online technology was demonstrated in the study that focused on self-efficacy and technology support programs (Vuong, Brown-Welty, & Tracz, 2010). The study of college sophomore students by Vuong, Brown-Welty, and Tracz (2010) incorporated the use of an online program and measured self-efficacy levels of college students. Self-efficacy was discussed in the article and the relationship between self-efficacy, GPA, and support programs was highlighted. As pointed out in the study by Vuong, Brown-Welty, and Tracz (2010), there may be many more important external variables that influenced retention and academic success. Findings from this study indicated that social integration should be studied more closely in future work with an emphasis on external variables (Vuong et al., 2010). An online orientation provided students the opportunity to achieve success early in their academic experiences by successfully completing the assessment in advance of beginning college course work (Vuong et al., 2010). This study had limitations in that there were numerous external variables such as participants completing additional support programs focused on academic preparation, study skills courses, and first year success classes that possibly also influenced retention and academic success. These external variables were not controlled for in the study and were an external validity threat. A study combined the use of online technology in regards to student effort and found that if students perceived they needed to work harder using online technology, then this concerted effort impacted

academic performance as much as knowledge of the material in relation to academic ability (Bernard et al., 2009). Students' view of online learning was different from views regarding face-to-face courses. The need for support programs to assist students with opportunities to increase student effort through performance achievements resulted in higher academic success (Yang et al., 2011).

Since orientation programs were recommended to be mandatory at some educational institutions, an online format was determined to provide the most student access and engagement (Fowler & Boylan, 2010). These programs provided student information regarding academic and non-academic issues. Students were able to gain knowledge regarding how to address concerns and become more engaged. Once knowledge was gained in a variety of areas, students were also able to overcome barriers that left unaddressed may lead them to drop out (Fowler & Boylan, 2010). A study that focused on online courses in comparison to face-to-face courses found a statistical difference in female and male students' opinions regarding the learning environments (Yang, Cho, Mathew, & Worth, 2011). This study may be replicated by additional colleges and universities focused on retention and academic success. The need to study further advancement regarding technology was vital as online technology not only provided students access to educational institutions but also removed barriers for graduates engaged in employment with major industries (Luke et al., 2011). Online technology was continuing to change and advance education and employment opportunities for students. In addition to online technology a review of grade point averages was worthy of examination in order to determine predictors of academic success.

Grade Point Average

Higher GPAs predicted college persistence (Sparkman et al., 2012). When a study of 991 students was conducted regarding grade point averages the results indicated a positive correlation between achievement and retention (Sparkman et al., 2012). A study of first-year cumulative GPAs among 1,815 first-year students at Maycomb Community College showed that GPA was a measure of academic success and integration; additionally, GPA was identified as a predictive factor in relation to retention (Hickman, 2011). GPA was often an important variable to study when analyzing student success. A 2-year longitudinal study studied the effects of an orientation program in regards to GPA, number of credits earned, and overall retention (Perrine & Spain, 2009). High school GPA was identified as a predictor of success in the study, and completion of the college orientation program was also studied in order to determine if a statistical significance occurred for participants (Perrine & Spain, 2009). In the study, participants in the orientation had a much higher GPA as compared to non-participants (Perrine & Spain, 2009). However, the study results also indicated that the orientation program participants had slightly higher GPAs but not enough to be a significant difference. Additionally, Perrine and Spain found the orientation program did not have a significant effect on retention (Perrine & Spain, 2009). Despite the insignificant findings, GPA was still a widely studied variable, and in other research mixed results occurred. For instance, a significant relationship between GPA and orientation programs has been linked to higher retention rates in a study of 300 students (D'Souza & Maheshwari, 2010). This study by D'Souza and Maheshwari (2010) had limitations as other factors influenced student performance in addition to the orientation program. Another limitation of the study

included that a single instructor taught the 300 participants, and study results varied if multiple instructors taught students (D'Souza & Maheshwari, 2010).

GPA was highlighted as one of the strongest variables in correlation to self-efficacy and the completion of support programs (Vuong et al., 2010). Research has included information indicating higher GPAs of students occur with students completing support programs such as the online orientation program (Vuong et al., 2010). Self-efficacy beliefs have also increased after completing the support programs, and the result has indicated higher GPAs (Vuong et al., 2010). Students with higher GPAs (3.50 to 4.00) were seven times more likely to graduate as compared to students with lower GPAs (1.50 to 2.50) (Brown, 2012). Additional reviews of GPA in studies indicated underprepared students who did not participate in support programs had lower grades and lower retention rates. Students with high GPAs were more likely to accept responsibility for their grades instead of stating that instructors determined their level of academic success (Hickman, 2011). The study (Hickman, 2011) did not address students who withdrew for personal reasons, such as family issues, illness, or financial obligations, nor how these factors affected retention and GPA. Furthermore, a strength of the study by Hickman (2011) found that individuals who earned a higher educational degree almost always had higher grade point averages when completing high school as compared to high school grade point averages of individuals without degrees. Low high school grade point averages for students often had lifetime effects on college persistence and completion of a degree. Specifically, students with GPAs below 2.5 were less likely to remain enrolled as compared to the students with GPAs above this level score (Hickman, 2011). A study of college student groups allowed researchers to examine the differences among grade point average, socioeconomic status, and self-efficacy within the groups. The limitations of the

study included using only one university in the data and a sample of only freshman students. Results of the study included the determination that students with higher grade point averages also had higher self-efficacy levels resulting in higher retention rates (Fowler & Boylan, 2010). The study conclusions, it is recommended that teachers should work to identify students with performance issues and students who avoided completing tasks. The study also highlighted the importance of reviewing GPAs of students due to the strong relationship with the self-efficacy theory and completion of support programs. The results of the study also included recommendations for mandatory orientation and completion of developmental coursework as measures of success for student retention (Fowler & Boylan, 2011). An additional study with 271 undergraduate college students majoring in liberal arts included information indicating cumulative GPA served as an indicator of academic success and retention (Brady-Amoon & Fuertes, 2011). College students' academic performance was an outcome measure (Bandura, 1997), and cumulative GPA was used to measure academic performance (Brady-Amoon & Fuertes, 2011). However, the findings of the study indicated a lower statistical significance in self-efficacy and GPA than in some other research studies (Brady-Amoon & Fuertes, 2011). The study limitations included that participants voluntarily participated which may have affected the results. In additional studies, GPA has also been used to study emotional intelligence in relation to retention (Morrow & Ackerman, 2012). Students completed an orientation session and were evaluated by researchers using multiple linear aggressions to determine a possible relationship between emotional intelligence scores and GPA (Morrow & Ackerman, 2012). The findings of the study indicated low emotional intelligence resulted in higher attrition levels (Morrow & Ackerman, 2012). Furthermore, first-generation students indicated that stressful life events may affect GPA

and ultimately may have an influence on continuous enrollment (Barry, Hudley, Kelly, & Cho, 2009). When students had support programs in order to address stressful life issues, GPA was found to be higher and retention levels were affected in a positive manner (Barry et al., 2009). A limitation to the study regarding stressful issues and GPA included an over-representation of female students (Barry et al., 2009). An additional study included results that a strong positive relationship occurred between student performance as measured by GPA combined with a review of self- confidence measured by levels of self-efficacy (Fowler & Boylan, 2010) Support programs linked to students with higher GPAs were identified by students as a reason for academic success (Fowler & Boylan, 2010). A strength of the study included that in addition to a review of grade point averages, it was also important to review students of different racial and ethnic identities in relation to their involvement with the online student orientation program.

Students of Different Racial/Ethnic Identities and Online Student Orientation

Many students attending 2-year institutions came from diverse backgrounds, and completion by these students in support programs outside the classroom were worthy of examination (Hall, Cabrera, & Milem, 2010). Students from different racial and ethnic identities at the University of Maryland College Park focused on campus activities and support programs. The study outcomes focused on the positive aspects of engaged students with diverse racial/ethnic identities in and outside of the classroom (Hall et al., 2010). Race and ethnicity have influenced how student groups were viewed and stereotyped (Bandura, 1997). Racial and ethnic identity groups were worthy of study as attitudes and achievement outcomes may have different results among various cultural groups (Bandura, 1997). Significant correlations with race and ethnicity and educational

attainments have been established (Douglass & Thomson, 2010). Behavioral knowledge regarding institutions and how to navigate through bureaucracies has been studied in racial and ethnic identity groups (Douglass & Thomson, 2010). Education and access were factors for consideration when policy makers attempted to meet the demands for a national workforce and addressed race and ethnicity, immigration, support programs, and financial aid programs (Douglass & Thomson, 2010). African American male students have reported campus environments to be unwelcoming and have been identified as having lower retention rates and academic success outcomes as compared to other races (Strayhorn, 2010). Two-thirds of African American men, who started college, left before earning a degree which represented the lowest completion rate among sexes and racial or ethnic identity groups (Strayhorn, 2010). A comparison of students from different racial or ethnic identities revealed that 61% of white students graduated as compared to 40% of black students (Guiffrida & Douthit, 2010). Two factors have been addressed as the reasons for the low retention rates: low academic preparation and insufficient support programs (Guiffrida & Douthit, 2010). A study of black students at predominantly white institutions revealed that support programs had a positive result in retention rates and academic achievement (Guiffrida & Douthit, 2010).

Only 23.2% of Latino students graduated with a degree, and fewer Latino graduates were employed in the field of management (Strayhorn, 2010). Online technology and programs and the additional factors of ethnicity and race should also be considered when analyzing outcome assessments (Yang, Cho, Mathew, & Worth, 2011). For example, a study of a group of Latino undergraduate students focused on family influence and school with a focus on online program delivery. Information was presented

to students in English and in Spanish. Findings included that participants had a more favorable identification with course work when completing the study in English than when the exercises were completed in Spanish (Devos, Blanco, Munoz, Dunn & Ulloa, 2008). Students also indicated higher self-esteem when completing exercises in English than when the work was completed in Spanish (Devos et al., 2008). This study presented findings that indicated Latino students viewed academic programs more favorably when completing work in English. This research served as an example regarding the importance of studying responses by racial and ethnic identity to programs such as the online student orientation. Students of different racial and ethnic identity viewed the online orientation in a positive or negative manner. However, additional research regarding Latino students and online technology indicated that white students had stronger research and technology skills. Limitations in this study included limited data as students participating self-selected into this study. Findings included that Latino students did not perform as well as white students in regards to computer literacy (Dabbour & Ballard, 2010). Therefore, students of different racial and ethnic identities performed in a different manner, and the need to study performance outcomes was important.

Furthermore, an additional study at a Carnegie doctoral research university in the Southeast region with an enrollment of 17,750 students focused on multiple factors when evaluating student success (Smith & Zhang, 2009). The quantitative study included first generation students, and the results indicated in relation to academic course work. The results indicated significant racial/ethnic and gender differences in relation to academic coursework. For example, when GPA differences were examined, there was no statistical variance in GPA between African American male and female students. However, the

non-African American student female students had lower GPAs than males. There was a need to focus on students of different racial and ethnic identities when examining GPA and retention in relation to the online student orientation program (Smith & Zhang, 2009). Limitations of research regarding the study of GPA at institutions included the use of data from a single institution and additional factors of study success not being addressed (Smith & Zhang, 2009). Furthermore, a study of 799 participants at a Midwestern university included results suggesting that female and male students of various racial/ethnic identities viewed online courses and technology in a different manner (Yang, Cho, Mathew, & Worth, 2011).

Finally, Tinto's theory of student departure focused on African American male college students, and findings confirmed that Tinto's theory accounted for student support programs having positive influences regarding student academic success (Palmer, Davis, & Maramba, 2011). Family influence and support programs have been highlighted as serving as important factors regarding retention of college students. Tinto's theory of student departure also focused on students' efforts to integrate academically at the college by completing support programs (Palmer et al., 2011).

Black students attending predominantly white institutions have been studied with a focus on academic success and retention (Guiffrida & Douthit, 2010). A strength of the study included that black students identified a need for support in transitioning from high school to college life and the importance of understanding new processes in order to be successful academically (Guiffrida & Douthit, 2010). The study included a limitation in the research that not all black experiences were included in the study and should not be overgeneralized. High school grade point average served as an early alert to identify

students at risk of not graduating. Support programs included methods to determine if students were at risk to graduate and intervened early enough to provide necessary support for academic success leading to graduation (Coll & Stewart, 2008). Colleges were challenged to work in a collaborative manner with other departments in order to develop support and orientation programs that addressed objectives and ultimately reached graduation and retention goals (Coll & Stewart, 2008). These orientation programs focused on promoting academic achievements with all students and should consider racial and ethnic identities in the development phase.

Race and ethnicity have been the focus of retention studies and were worthy of examination. For instance, academic self-efficacy levels were studied with a Korean student population focusing on cognitive strategies that help learners (Joo et al., 2012). Students with higher self-efficacy levels participated in performance tasks and increased self-efficacy levels. The Korean educational system uses a self-paced instructional program with learning strategies in which students recalled or remembered content similar to the format that an online orientation support program offered. Students from additional racial and ethnic identities have revealed high stress rates regarding transitioning from high school to college programs. Intervention in the form of support programs has been identified as alleviating stress and providing the necessary assistance for positive student outcomes (Barry et al., 2009).

Summary

When students leave educational institutions without obtaining a credential, the finances of the institutions were negatively affected. Low retention rates have become a management issue for colleges. Educational institutions need to improve retention rates.

Public funding for educational entities was being questioned in regards to the return on the investment in the community. Support programs were being developed and evaluated in order to analyze issues of retention and academic success. Historical perspectives on new student orientation programs date back to the late 1800's and increased over time until the 1950's. Non-traditional student population increased, and student orientation programs were implemented to promote positive college experiences. Support programs were important for educational institutions in order to promote academic success and retain students through completion of graduation. Completion of performance tasks by students resulted in higher confidence levels. Completion of an online orientation program provided the opportunity for students to perform tasks and to engage early in a college program. The theory of self-efficacy occurred from four informational sources: (a) performance accomplishments, (b) vicarious learning, (c) social persuasion, and (d) emotional arousal. Performance accomplishment was based on an individual's past success in performing a task or behavior (Bandura, 1997). The performance task of completing the online orientation fits into Bandura's theory. Tinto's model included the importance of support programs in relation to retention and academic performance (DeWitz et al., 2009). The theory of self-efficacy as a part of the cognitive social theory placed an emphasis on performance accomplishments (Bandura, 1997). Students with higher levels of self-efficacy indicated a link to academic success. The theory of attrition in relation to retention with emphasis on academic achievement (Bean, 1982), Tinto's model of student departure (1993), and Tinto's (2006) model of fit, integration, and commitment with an emphasis on support programs were the basis of the theoretical framework for this study. Tinto has focused on studying attrition in

order to make the issues relevant to current policy, but it was challenging to identify all variables that influence retention rates at colleges and universities (Mannan, 2007). Astin's work regarding the effect of positive student experiences in relation to retention and academic success was important for college and university officials in the development of support programs. Retention and models related to orientation support programs supported the need to serve the diverse student population. Students attending college have various educational backgrounds and different levels of academic preparation. Non-traditional predictors were important for college officials to review when considering the issue of student retention rates. These non-traditional predictors included developmental course participation, financial aid, family influence, and first-generation student status. In addition to non-traditional predictors of student retention, it was important to evaluate the use of online technology. The topic of retention and academic achievement was an important factor considered when reviewing the overall success of an online orientation program and technology. Online technology was an important educational tool that allowed student access to education. The issues associated with online programs such as fewer interactions and students' lack of personal relationship were some of the negative aspects of online technology. However, the positive features of an online orientation program included increased access to education, increased student participation, enhanced ability to perform tasks, and an increase in confidence and self-efficacy. Institutions have expanded online technology programs, and these support programs' outcomes were worthy of examination for future growth. The use of technology served as a tool to work with students in order to promote academic success and higher graduation rates. In a study regarding the use of

online technology conducted by Mannan (2007), limitations included the use of data from only one university. An additional limitation of Mannan's study included the use of subjects from a university located outside the United States but a strength of the study focused on expanding the scope of studying online technology in other countries. Understanding how the use of online technology related to an orientation program will assist in making key management decisions that influence revenue. Another predictor of academic success was higher GPAs, but lower GPAs were linked with higher departure rates from educational institutions (Brady-Amoon & Fuertes, 2011). Additionally, the importance of evaluating race and ethnicity of students completing the online orientation was presented with specific emphasis on students of various races. The literature supported an evaluation of the race and ethnicity of students in regards to retention, enrollment, and online orientation programs. The importance of studying the race and ethnicity of the population of the students completing the online orientation and the students not completing the program was also outlined in the research (Mannan, 2007). The Complete College America and Complete College Georgia initiative plans included information calling for improvements of retention rates with an emphasis on African American and Hispanic students (Complete College America & Complete College Georgia, 2012). The literature supported the importance of evaluating support programs in relation to race and ethnicity. The use of support programs such as online orientations has been identified as an effective method to meet student needs, assist students in achieving academic goals, and ultimately, address student retention and graduation rates of colleges and universities. Also, traditional and non-predictors of success were outlined in relation to the areas of retention and academic success. These traditional

predictors included a review of GPA to measure academic success and completion numbers in order to measure retention rates. The non-traditional predictors of success focused on financial aid, family support, completion of developmental courses, and first-generation status of students. Additionally, the models and theories of Bandura, Bean, Tinto, and Astin outlined in this literature review supported the study of an online orientation program in relation to retention and academic success. Overall, this literature review provided synthesis of the scholarly research and provided a critical analysis of the literature.

Chapter 3: Research Method

Reviewing programs within organizations that addressed the topics of retention and orientation is vitally important to the success of the institution (Jenkins, 2009; Nitecki, 2011). In this study the problem that was addressed was a business challenge as low student success rates measured by retention and student grade point averages at community colleges lead to higher dropout rates (Vennestra, 2009). The financial implications for educational institutions include the loss of revenue which may lead to the loss of jobs for faculty and the loss of services to students (Hall, 2010). With lack of services, student needs were not met and they dropped out of the institution. With the loss of the paying end-user, the financial losses negatively affect the financial stability of the organization (Kim, 2010). The goal of this study was to determine if a relationship existed in retention and success rates between students who completed the support program of an online orientation program and students who did not complete the program. Managers will need to review data in order to make adjustments in the support program of online orientation and address the issue of retention and success (Mbuva, 2011).

The purpose of this quantitative, non-experimental, comparative study was to use existing data to examine whether or not students who completed a college online orientation program had different rates of retention and grade point average (GPA). This archival study used existing data from incoming first-year full-time and first-year part-time students who remained at the college and from those who dropped out. The data was reviewed after a 2-year period until the student withdrew, was academically dismissed, or graduated.

To evaluate student completion of the college's online orientation program and its relationship to academic achievement and retention, the following list of research questions and hypotheses were answered:

Q1: What is the difference, if any, in average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program?

Q2: What is the difference, if any, in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity?

The following hypotheses were generated based upon the research questions:

$H1_0$: There is no statistically significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

H1a: There is a statistically significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

$H2_0$: There is no significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

H2a: There is a statistically significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

This chapter will address the research methods and designs, population, sample, materials and instruments and operational definition of variables. Data collection, processing, and analysis will be discussed. The assumptions, limitations, delimitations, ethical assurances will be discussed and the chapter concludes with a summary.

Research Methods and Design(s)

Quantitative methods that included this quantitative, non-experimental, comparative study were the most appropriate methods for this topic. This was the best research design to examine whether or not students who completed a college online orientation program had different rates of retention and grade point average (GPA). Qualitative methods were considered but were determined not to be the best method because of the availability of archival, quantitative data and the additional factor of time that would be required. Retention is a time sensitive problem due to funding implications. Quantitative studies included opportunities to review the numerical data and use statistical tests in order to reduce error and report analysis and inferences regarding the data (Vogt, 2007). The quantitative, non-experimental, comparative design was optimum for the purpose of this study because there was no researcher manipulation of the intervention or assignment to groups, the two groups were compared, and although cause and effect could not be inferred, it was possible to determine if a relationship existed and make predictions.

Population

The population size was defined as a cohort of all first-time full-time and first-time part-time students of the college selected for this study for a period of one term. This study was an applied doctoral project with one of the community colleges in the

state of Georgia. The president of the college requested this applied study in an effort to gain a greater understanding of program outcomes. The college is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree, diploma, and technical college certificate of credit in the areas of Business, Technical and Industrial, and Healthcare programs (Athens Technical College Catalog, 2010). The population size of the study was 1,643 and was comprised of two groups: 1,144 students who completed an online orientation program and 499 students who did not complete the program (Athens Technical College, Orientation and Registration Report, 2010).

Sample

All archival data was used in the proposed research study in order to select the matched sample. To ensure that this research study had a sufficient sample size and the necessary power to provide confidence in the outcomes (Houser, 2007), a minimum sample size of 64 was calculated using G*Power 3.1 using a t-test, a priori power analysis with a power of .80, .05 significance, and medium effect size of 0.3. A matched sample of 499 was selected from the 1,144 students who completed the orientation with students who did not complete the program. The student sample size of the study was 998 (499 completers of the online orientation program and 499 non-completers of the online orientation program). In an effort to control variables that may influence the outcome of the study a matching sample process was used. Full-time and part-time status, gender, and race or ethnic identity were the matching variables that were used for the matching process. These races and ethnic categories as outlined in the Banner Information System used by the college selected for this study included American

Indian/Alaskan Native, Asian, Black or African American, Hispanic, Unknown, and White. Using the multiple variables in the matching process of full-time and part-time status, gender, and race or ethnic identity aided in matching completers of the online orientation program with the non-completers of the program. In instances where there were more matching completers than the number of non-matching completers a random selection process was used.

Since a large sample size does not guarantee that the assumptions of normality and variances of equality were met, the assumptions were tested and alternative, non-parametric statistical tests were used if assumptions were not met. A calculated grade point average was computed for each student by adding the total grade points each student earned and dividing this number by the total number of credit hours during the time period of enrollment. These calculations were entered into an SPSS spreadsheet. A bar chart allowed the variables of mean GPA and retention to be displayed. Since the variable of retention was categorical, a nonparametric procedure, the Spearman's rank order correlation coefficient (Spearman's rho) was performed to determine the strength of the relationship of grade point average (GPA) and retention. The calculated grade point average was computed by adding the total grade points each student earned and dividing this number by the total number of credit hours the student completed during the duration of his or her enrollment. A chi-square test was used for question Q1 with retention rates as the dependent variable. Participants were coded as "retained-1" or "not retained-2". Therefore, when frequency counts were used as the dependent variable, a chi-square test was used. The chi-square test was used to determine a test of difference between independent groups. In question Q2, a t-test was used to compare the means of the

research and comparison group on the variable of calculated grade point average for various racial/ethnic identity groups. Information regarding race and ethnicity was input into the SPSS worksheet. In an effort to control variables that may influence the outcome of the study a matching sample process was used. The two comparison groups included students who completed the online orientation and students who did not complete the online orientation. The t-test allowed for a comparison of a group who completed the online orientation and a group who did not complete the online orientation program. In an effort to control variables that may influence the outcome of the study a matching sample process was used. Full-time and part-time status, gender, and race or ethnic identity were the matching variables that were used for the matching process. For example, grade point averages of student of the races and ethnic categories as outlined in the Banner Information System used by the college selected for this study included American Indian/Alaskan Native, Asian, Black or African American, Hispanic, Unknown, and White. The two groups were compared using completion of an online orientation program as the independent variable. Grade point averages served as the dependent variable.

Materials/Instruments

A community college in the State of Georgia in the southeast region approved the study of a cohort of all first-time full-time and first-time part-time students of the college selected for this study for a period of one term. The information was archival, and the demographic information was retrieved from Banner, the college's student information system database. Access to the existing information occurred as permission had been given to review information from the IPEDS database, the Technical College System of

Georgia Information System entitled Knowledge Management System (KMS), the college's Banner Information System, and the college's online orientation report management system. Retrieval of the existing data involved accessing data on the college's information system regarding students who completed the online orientation program and the students who did not complete the program. Additional information was retrieved for these students via IPEDS and Banner. This information contained grade point averages, enrollment status, and completion rates. The names in the data were replaced by numerical identifiers prior to data access.

Operational Definitions of Variables

The purpose of this quantitative, non-experimental, comparative study was to use existing data to examine whether or not students who completed a college online orientation program had different rates of retention and grade point average (GPA). The independent variable was completion of an online orientation program with two levels, completion and non-completion. The dependent variables were grade point average and enrollment status, retained or not retained. The following operational definitions outlined each of the variables in relation to the study.

Completion of an Online Orientation Program. Completion of an online orientation program served as an independent variable. One group of students completed the online orientation, and the other group did not. This variable defined the difference between the student groups and was a nominal level variable coded with a yes or no answer determined by completion or lack of completion in the online orientation. Data regarding whether or not students completed the online orientation program was maintained in the college's information system. Students were required to complete

each section of the orientation and answer questions during the process in order to progress to the final assessment. Students who completed the online orientation successfully completed an assessment at the end of the program with a required score of 80% and the score was recorded in the college's database. Students successfully completing the online orientation were allowed priority registration. Non-completers of the online orientation program were classified as non-completers by the college if they did not attempt the online orientation and did not successfully complete the online assessment. All students who participated in the online orientation took the assessment at the end of the program. Students were encouraged by advisement center staff to complete the online orientation program in order to register early.

Grade Point Average. The grade point average served as a dependent variable. The grade point average scale occurred on an interval scale of 0 (lowest range of academic achievement) to 4.0 (highest level of academic achievement). Letter grades were assigned values that were used in the calculation of grade point averages: An F was equivalent to 0.0, a D was equivalent to 1.0, a C was equivalent to 2.0, a B was equivalent to 3.0, and an A was equivalent to 4.0. Extraction of the grade point averages occurred from the student's college record after the completion of the term. The calculated grade point average was computed by adding the total grade points and dividing this number by the total number of credit hours the student completed during the duration of his or her enrollment. This information was input into SPSS for further analysis.

School Retention/ Enrollment Status. To answer research question one, a school retention variable allowed for the comparison and analysis of the two student groups.

The cohort of students was examined to determine fall to fall retention. Only students who remained enrolled at the end of fall term were considered retained unless they had graduated early as occurs in a few programs where students may graduate prior to the end of the term. The nature of the variable "school retention" was a dependent variable. The subjects were categorized as retained or not retained, which was a nominal level variable. Participants were coded as "retained-1" or "not retained-2". Therefore, when frequency counts were used as the dependent variable, a chi-square test was used to compare various racial/ethnic identity groups.

Ethnic/ Racial Identity Sub-groups. The variable, ethnic/racial identity sub-group was nominal in nature and was coded using the different ethnic/racial identity sub-groups of American Indian or Alaskan Native, Asian, Black or African American, White, and Unknown. These students of different racial/ethnic identities were coded in the college database system and followed the IPEDs reporting requirements. A new methodology was developed in 1997 by OMB to be used in reporting race/ethnicity. Race/ethnic identity, full-time and part-time status, and gender were the matching variables that were used for the matching process.

Demographic Data. Demographic data was recorded descriptively but was not included in the statistical analysis. Data included gender (male or female) and educational status (full-time or part- time). These variables were selected because the college selected for this study use this information to describe the population and also because they may have influenced the relationship between the independent variable of an online orientation program with two levels, completion and non-completion. The variables of gender, and educational status may have also influenced the dependent

variables of grade point average and enrollment status (retained or not retained). These demographic variables were not major variables but were worthy of review in order to understand any influences regarding the independent or dependent variables. Each variable was discussed using descriptive statistics such as frequency counts (as appropriate), number of completers and non-completers, and percentages.

Data Collection, Processing, and Analysis

Access to the existing archival information occurred as permission had been granted to gain access to information in the Integrated Postsecondary Education Data System (IPEDS), the Technical College System of Georgia Information System entitled Knowledge Management System (KMS), the college's Banner Information System, and the college's online orientation report management system. Retrieval of the existing data system consisted of accessing the college's students who completed the online orientation program and the students who did not complete the program, retrieving IPEDS and Banner information for these students. This information contained grade point averages, enrollment status, and completion rates. Data analysis included reviewing students' grade point averages at the end of the academic term. Additional data analysis included the review of data in regards to whether students completed the online orientation their first quarter at the college and began another term. A review was also completed of students who did not complete the orientation. The archival information was retrieved from the college's database. Students' retention rates were collected from a cohort group of students from fall term to fall term by capturing data recording each student's enrollment status for a 2-year period. This data existed in college and the state system office records; therefore, a survey was not necessary in this quantitative study. Since a

large sample size does not guarantee that the assumptions of normality and variances of equality were met, the assumptions were tested and alternative, non-parametric statistical tests were used if assumptions were not met. A calculated grade point average was computed for each student by adding the total grade points each student earned and dividing this number by the total number of credit hours during the time period of enrollment. These calculations were entered into an SPSS spreadsheet. A bar chart allowed the variables of mean GPA and retention to be displayed. Since the variable of retention was categorical, a nonparametric procedure, the Spearman's rank order correlation coefficient (Spearman's rho) was performed to determine the strength of the relationship of grade point average (GPA) and retention. A chi-square test was used for question Q1 with retention rates as the dependent variable. Participants were coded as "retained-1" or "not retained-2". Therefore, when frequency counts were used as the dependent variable, a chi-square test was used. The chi-square test was used to determine a test of difference between independent groups. In question Q2, a t-test was used to compare the means of the research and comparison group on the variable of calculated grade point average for various racial/ethnic identity groups. Information regarding race and ethnicity was input into the SPSS worksheet. The two comparison groups included students who completed the online orientation and students who did not complete the online orientation. For example, grade point averages of student of the races and ethnic categories as outlined in the Banner Information System used by the college selected for this study included American Indian/Alaskan Native, Asian, Black or African American, Hispanic, Unknown, and White. The two groups were compared using completion of an online orientation program as the independent variable. Grade point averages and

retention served as dependent variables. This information was input into SPSS for further analysis.

Assumptions

Adequate data was available because archival information was retrieved directly from the college's database. It was assumed that the data was entered into the system accurately by college employees and that students provided correct information. It was also assumed that the college's database was reliable and that data tests analyzed by the Technical College System of Georgia each term on all college data would have identified and addressed any significant errors. Also, it was assumed that the statistical tests allowed for the determination of a statistical difference between the comparative groups. The statistical tests conducted in SPSS were rechecked in order to make sure the outcomes were recorded correctly and the conclusions were accurate. Studies cited in the literature review have provided results indicating that students who completed support programs such as orientation programs have had statistical differences in relation to retention and academic success. The comparative, quantitative design provided the opportunity to perform statistical tests in order to determine if there was a statistical difference between two groups of students. Additionally, it was assumed that the structure and content of the online orientation program was reliable and valid.

Limitations

A crucial aspect of the study was establishing reliability and validity during data analysis (Creswell, 2009). The evaluation of reliability and validity issues included the potential validity threat of additional student programs that influenced grade point averages or retention rates. In this study, it was important to identify these other support

programs and state the possible influence they may have had regarding grade point average and retention rates. Confounding variables included the potential impact of computer access and the computer literacy of the participants. These variables were addressed by results from the college's student satisfaction survey analysis that included an annual survey. The results indicated that 97% of students who completed the survey had a computer at home, and 88% had Internet access at home. The remaining 12% of students who indicated they did not have Internet access at home stated they have access through a local public library or on-campus computer lab (Athens Technical College Survey Analysis, 2011). External validity issues in this study included avoiding the practice of applying inferences from this study to the population at other institutions. The design of the study was a quantitative, comparative study and did not address causality. This was an applied research study and included data for a period of 2 years.

Delimitations

This applied, comparative, quantitative study was not focused on additional institutions, and the results should not be generalized. Instead, the applied study may be replicated in educational institutions. Two-year institutions may benefit from replicating the applied research with detailed information provided in this study that was focused on a 2-year educational institution. Also, the focus of this study was based on completion of an online orientation program in relation to retention and academic success. Additional support programs were not studied in depth and may be worthy of examination in future studies. Administrators should not assume that the same results of this study will occur at their educational institutions. The study was delimited by including only variables that helped answer questions related to GPA, retention, and race/ethnicity.

Ethical Assurances

Approval from the Northcentral University (NCU) Institutional Review Board (IRB) was obtained prior to retrieving data from the college's records. Even though the study included the use of archival data, IRB approval was still required in order to move forward with analyzing data. Privacy and confidentiality of all participant information was maintained at all times. IRB approval was granted, and permission from the educational institution was granted to allow for the use of redacted data. Data was maintained in a locked and secure location, and while analysis of the information occurred, no other individuals were granted access to review the information. Only individuals involved in the research process had access to the information. No identifiable information regarding students or groups were included in the study. Seven years after completion of the research, all data will be destroyed. This proposed study was an applied doctoral project with one of the community colleges in the state of Georgia. The college is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree, diploma, and technical college certificate of credit (Athens Technical College Catalog, 2010).

Summary

The issue of retaining students was a challenge for business and industry in their desire to hire a trained labor force (Heiman, 2010). This study involved a 2-year college's online orientation program. The analysis of the orientation program and its relation to the potential academic success of college students presented an opportunity to evaluate a program and address challenges within the educational system. The significance of this applied study included a focus on the 2-year community or technical

college instead of the 4-year research university. An online format provided greater access for these students to college programs and policies which may have helped them be successful and more likely to remain enrolled. When considering the student population of 2-year institutions and the challenges of retention, support programs were needed in order to compensate for low retention rates (Roman, 2007). The results of this research topic were worthy of examination because of the importance of retention and student success. The results of this study provided college leaders the information to make significant fiscal and management decisions regarding the support program of the online orientation. While new programs and initiatives were necessary to address growth in student enrollment, the desire to retain students and have them successfully complete academic work was important for student success and for financial management.

Chapter 4: Findings

The purpose of this quantitative, non-experimental, comparative study was to use existing data to examine whether students who completed a college online orientation program had different rates of retention and grade point average (GPA) than those who did not complete an orientation. The problem being addressed was a business challenge as low student success rates measured by retention and student grade point averages at community colleges lead to higher dropout rates (Vennestra, 2009). The financial implications for educational institutions include the loss of revenue, which may lead to the loss of jobs for faculty and the loss of services to students (Hall, 2010). The goal of this study was to determine if a relationship existed in retention and success rates between students who completed the support program of an online orientation program and students who did not complete the program. College program managers will need to review data in order to make adjustments in the support program of online orientation and address the issue of retention and success (Mbuva, 2011). Achieving higher retention rates allowed colleges to maintain or improve tuition revenue which was a vital variable for future success of colleges (Nitecki, 2011). As the loss of students equates to a loss in revenue, the results of this study will also serve as a management tool for college administrators (Kim et al., 2009).

This chapter includes the findings of the study and is divided into three sections. The first section includes the results, where the statistical analysis information is presented. This section is followed by the evaluation of the findings and is evaluated within the framework of the research questions and hypotheses. The chapter concludes with a summary of key results.

Results

This quantitative study included the following frequency and percentage information for the total group of first time students in Table 1. The total number of first-time students from which the comparison groups were selected according to part-time or full-time attendance, gender, and completion of the orientation. For the entire cohort there were almost equal part-time and full-time students. However, there were less part-time students completing the online orientation program. The numbers of male students in the cohort as compared to the numbers of female students were similar to the college's overall enrollment of male and female students (Athens Technical College Orientation and Registration Outcomes Report, 2010). Also, the number first time part-time and full-time students were similar to the college's overall educational status for students (Athens Technical College Institutional Effectiveness Performance Plan, 2010). Table 1 included frequencies and percentages for the total group of first time students.

Table 1

Frequencies and Percentages for the Total Group of First Time Students

Categories	**Completers of online orientation**		**Non-completers of online orientation**		**Total**	
	N	%	*N*	%	*N*	%
Part-time Students	535	32.6	300	30.2	835	50.8
Full-time Students	609	37.1	199	12.1	808	49.2
Total	1,144	69.6	499	30.4	1,643	100.0
Male Students	460	28.0	182	11.0	642	39.0
Female Students	684	41.6	317	19.4	1,001	61.0
Total	1,144	69.6	499	30.4	1,643	100.0

In addition to the frequencies and percentages for the total group of first time students, Table 2 included the following frequency and percentage information for the matched

sample group of first time students. The matched sample of 499 students included more part-time students than full-time students. The matched sample included a higher number of female students who completed the online orientation program as compared to male students. However, the percentages of female students and male students in the total group of students and the percentages of female students and male students in the matched sample are close in total when compared. The following frequencies and percentages for the matched sample were outlined in Table 2.

Table 2

Frequencies and Percentages for the Matched Sample

Categories	**Completers of online orientation**		**Non-completers of online orientation**		**Total**	
	n	*%*	*n*	*%*	*n*	*%*
Part-time Students	301	30.2	301	30.2	602	60.4
Full-time Students	198	19.8	198	19.8	396	39.6
Total	499	50.0	499	50.0	998	100.0
Male Students	183	18.3	183	18.3	366	36.6
Female Students	316	31.7	316	31.7	632	63.4
Total	499	50.0	499	50.0	998	100.0

The matched sample was determined using educational status (full or part-time enrollment), gender, and race as the matching variables. The matching variables are important to examine in order to understand the demographics of the matched sample and to determine if any of these variables may influence the outcomes of the study. Additionally, frequency and percentages were calculated for the variable of race and ethnicity of the matched sample in Table 3. Race and ethnic identity categories included Asian, Black or African American, Hispanic, Unknown, and White. The Race and ethnic identity groups' information included frequency and percentages for the group of

students who completed the online orientation and the group of students who were non-completers of the online orientation program.

Table 3

Frequencies and Percentages for Variables of Race and Ethnicity

Race	**Completers of online orientation**		**Non-completers of online orientation**		**Total**	
	n	%	*n*	%	*n*	%
Asian	60	6.01	60	6.01	120	12.02
Black or African American	109	10.92	109	10.92	218	21.84
Hispanic	23	2.30	23	2.30	46	4.60
Unknown	25	2.51	25	2.51	50	5.02
White	282	28.26	282	28.26	564	56.52
Total	499	50.0	499	50.0	998	100.0

Because this study was quantitative in nature, the results were captured using IBM SPSS 21.0 software. Information was released by the participating college which included data from the IPEDS database, the Technical College System of Georgia Information System entitled Knowledge Management System (KMS), the college's Banner Information System, and the college's online orientation report management system as indicated in the letter outlined by the college president releasing the information. After inputting the matched sample information into SPSS 21.0, conditions for the chi-square test and t-test were checked prior to working with the data. For the chi-square test conditions checked included ensuring that there was enough data to work with in each cell by using the expected counts feature. A review for missing data was completed and then conditions were checked for each statistical test to ensure accuracy. For example, with the implementation of the chi-square, expected counts were determined for Question 1 in

order to make sure that there was enough information to work with in each cell and the findings indicated that each cell turned out to be greater than or equal to five. In order to use the t-test for Question 2, conditions were checked to ensure that the data were independent and the outcomes did not affect each other, the sample had a normal distribution, and the sample sizes were equal. Next, a histogram visually indicated a normal distribution of the data regarding the variable of GPA with the presence of a bell curve.

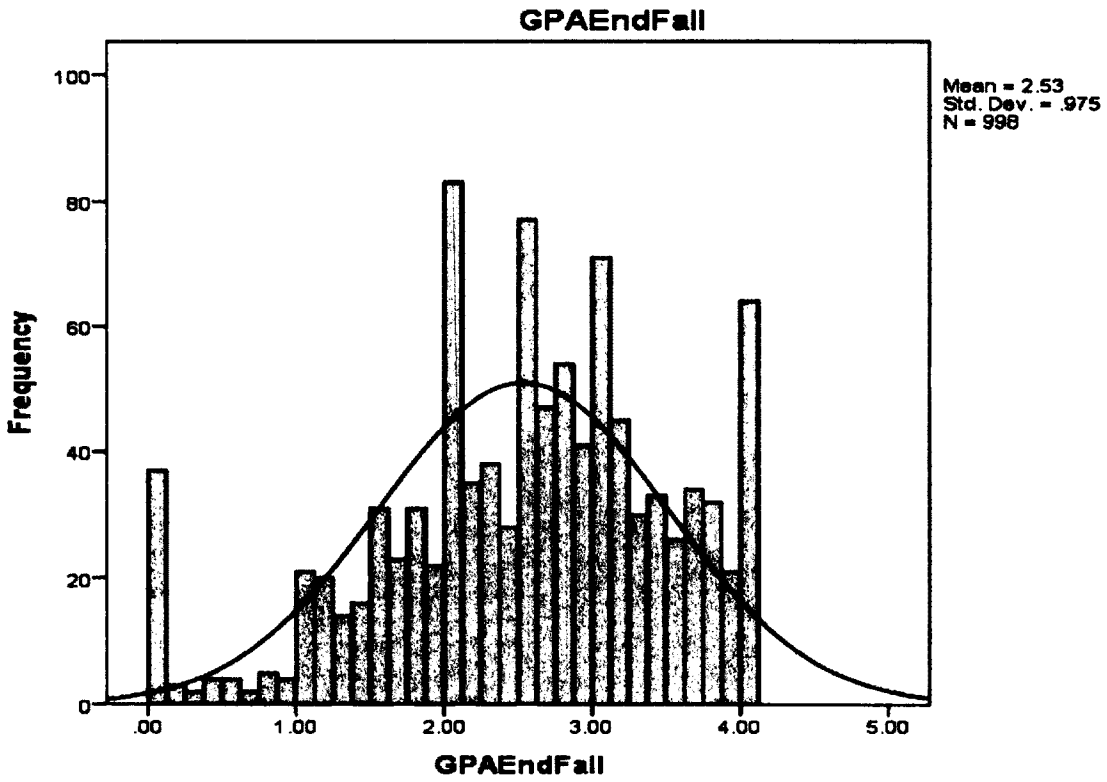

Figure 1. Histogram of Grade Point Average (GPA) Variable.

The figure is representative of the normal distribution of data regarding the variable of (GPA) grade point average with the presence of a bell curve. This figure was developed by the researcher using SPSS 21.0.

Using the explore function of SPSS 21.0, the descriptive analysis found the data for grade point average (GPA) to be normally distributed.

Next, a bar chart was produced to display the variables of mean grade point average (GPA) and retention as outlined in the research methods chapter. The bar chart figure did result in a visual confirmation that a higher GPA had a linear relationship with retention.

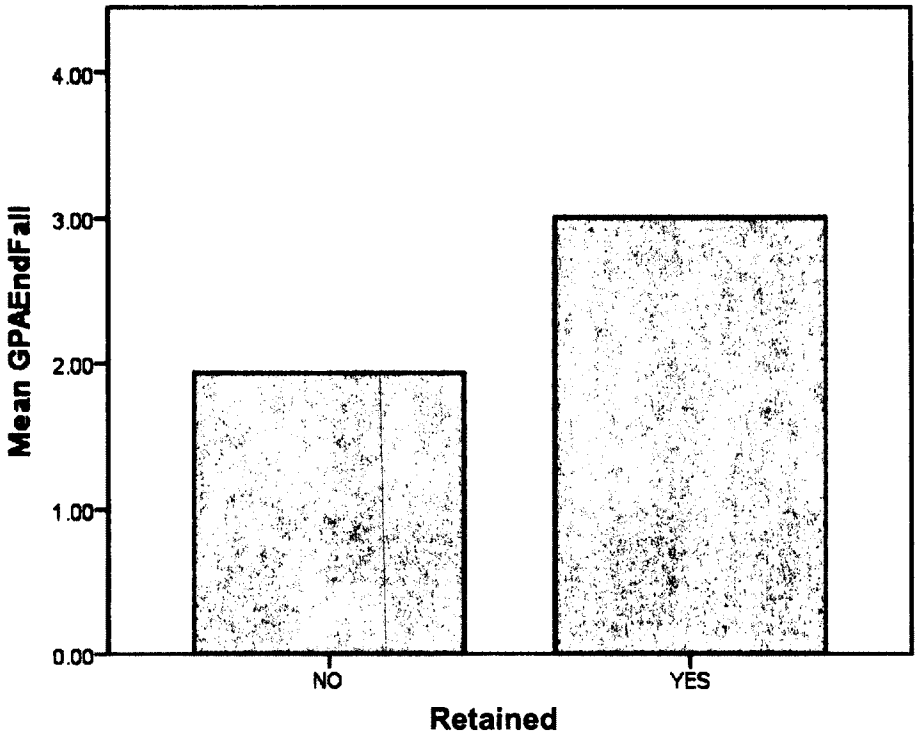

Figure 2. Mean Grade Point Average and Retention Bar Chart.

The figure includes information regarding students who had a higher GPA (Grade Point Average) retained at a higher rate. This figure was developed by the researcher based on the quantitative data using the Chart Builder function of SPSS 21.0.

Since the variable of retention was categorical, a nonparametric procedure, the Spearman's rank order correlation coefficient (Spearman's rho) was performed to determine the strength of the relationship of grade point average (GPA) and retention. The Spearman's rho revealed a statistically significant relationship between students' grade point averages and retention rates (r_s [998]=-.42, $p < .001$. Next the descriptive

statistics for average retention rates of completers of the online orientation and non-completers of the online orientation program are included in Table 4.

Table 4

Frequencies and Percentages for the Variable of Retention

Descriptive Categories	**Completers of online orientation**		**Non-completers of online orientation**	
	n	**%**	***n***	**%**
Average Retention Rate	144	28.86	90	18.03
Average Non-Retention Rate	355	71.14	409	81.97
Total	499	100.00	499	100.00

This descriptive information provided a description of the matched sample in relation to retention rates for completers of the online program and non-completers of the online orientation program. Table 4 outlined completers of the online orientation retained at a higher percentage than non-completers of the online orientation program. Additional descriptive information outlined mean grade point average (GPA) of the matched sample in Table 5.

Table 5

Mean GPA of Matched Sample

Descriptive Categories	**Range**	**Mean**	**Standard Deviation**
GPA of Completers	(n=499) 0 - 4.00	2.98	.696
GPA of Non-completers	(n=499) 0 - 4.00	2.77	.708

This matched sample included 499 students who had grade point averages ranging from 0 to 4.00. The descriptive categories included grade point average of students who completed the online orientation program and students who did not complete the online

orientation program. The next portion of this quantitative study focused on the research questions, hypotheses, and the statistical results of this study. The research questions and hypotheses are as follows:

Research Question 1: What is the difference, if any, in average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program? The hypothesis to test this research question was as follows:

$H1_0$: There is no significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

H1a: There is a statistically significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

A chi-square test was used for question Q1 with retention rates as the dependent variable. Participants were coded as "retained" or "not retained". The expected counts were checked, and 0 (0.00%) of cells had expected counts of less than five. A chi-square test examined average retention rates over a 2-year period for students who did and did not complete the orientation program and found a significant difference for completion, $\chi^2(1, N = 499) = 16.28, p < .05$. A significance value below 0.05 allowed for the rejection of the null hypothesis. Therefore, a significant difference existed between average retention rates of students who completed the online orientation and students who did not complete the orientation. The results indicated that 144 (28.86%) students who completed the

online orientation support program retained as opposed to 90 (18.03%) students who did not complete the program.

Research Question 2: What is the difference, if any, in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity? The hypothesis to test this research question was as follows:

$H2_0$: There is no significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

H2a: There is a statistically significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

A t-test examined average GPA over a 2-year period for students who did and did not complete the orientation program, controlling for race/ethnicity and found a significant difference for completion, $t(997) = 94.72, p < .05$. There was a difference in average GPA controlling for race and ethnicity between students completing a college online orientation program and students not completing the program. The p-value for GPA at the end of the second year the p-value was .000. Since the p-value was less than .05, the null hypothesis was rejected. In order to control for the variables of race and ethnicity a matching sample process was used. Full-time and part-time status, gender, and race or ethnic identity were the matching variables that were used for the matching process.

Next, in Table 6, frequencies, percentages, mean grade point averages (GPA), along with the standard deviation was outlined in the table based on race and ethnicity of completers and non-completers of the online orientation program.

Table 6

Frequencies, Percentages, Mean GPA and Standard Deviations for Racial/Ethnicity Groups

Descriptive Categories	**Students**		**Mean GPA**	**Standard Deviation**
	n	**%**		
Asian Completers	60	6.01	2.89	.859
Black/African Amer. Completers	109	10.92	2.47	.770
Hispanic Completers	23	2.30	2.71	1.00
Unknown Completers	25	2.51	3.06	.532
White Completers	282	28.26	3.11	.600
Asian Non-completers	60	6.01	2.38	.570
Black /African Amer. Non-comp.	109	10.92	2.67	.620
Hispanic Non-completers	23	2.30	3.16	.001
Unknown Non-completers	25	2.51	2.92	.571
White Non-completers	282	28.26	2.85	.771
Total	998	100	2.89	.706

A review of the descriptive data of racial and ethnic identity groups by retained completers and retained non-completers, revealed the race or ethnic identity group of white students who completed the online orientation retained at the highest percentage (18.64%). The race or ethnic identity groups by non-retained completers also revealed that white students were the highest percentage (37.88%) of non-retainers. While the differences between retention rates of the 2-year period based on race and ethnicity of the students who completed a college online orientation program and students who did not complete the program were not statistically significant, a review of the frequencies and

percentages for retention rate of racial and ethnic identity groups provides an opportunity to review the specific data. Table 7 provides descriptive data for race and ethnicity by each comparison group of completers of online orientation and non-completers of the online orientation program.

Table 7

Frequencies and Percentages for Retention Rates of Racial and Ethnic Groups

Descriptive Categories	**Retained Completers**		**Retained Non-Completers**		**Non-Retained Completers**		**Non-Retained Non-Completers**		**Total Sub-Groups**	
Race/Ethnicity	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***
Asian	15	(1.5)	7	(0.7)	45	(4.5)	53	(5.3)		
Black	22	(2.2)	20	(2.0)	87	(8.7)	89	(8.9)		
Hispanic	6	(0.6)	1	(0.1)	17	(1.7)	22	(2.2)		
Unknown	8	(0.8)	5	(0.50)	17	(1.7)	20	(2.0)		
White	93	(9.32)	57	(5.7)	189	(18.9)	225	(22.5)		
Sub-Total Completers	144	(14.4)			355	(35.6)			499	(50.0)
Sub-Total Non-Completers			90	(9.0)			409	(41.0)	499	(50.0)
Total of Matched Sample	144	(14.4)	90	(9.0)	355	(35.6)	409	(41.0)	998	(100)

The hypotheses statistical results allowed for the rejection of the null hypothesis in Question 1 using a chi-square test as the p-value was less than 0.05. Also, the hypotheses statistical results allowed for the rejection of the null hypothesis in Question 2 using a t-test as the p-value was less than 0.05. The statistical results of the hypotheses include the research question, statistical tests, and p-values are located in Table 8 on the following page.

Table 8

Hypothesis Testing and Statistical Results

Research Question	Statistical Tests	Test Statistic Value	P-value(s)
Question 1	Chi-square test	16.28	0.000
Question 2	T-test	94.72	0.000

Evaluation of Findings

An analysis of the findings of this study is presented in this section. The chi-square statistical hypothesis test was used in the first research question to determine if the null hypothesis could be rejected regarding retention and orientation. Also, a t-test was used to test the null hypothesis that sampled the groups of GPA with completion of orientation and non-completion of orientation.

In regards to Question 1 concerning retention and comparison groups of students who completed the online orientation and students who did not complete the online orientation, a statistically significant difference was found to exist between average retention rates of students who completed the online orientation A chi-square test examined average retention rates over a 2-year period for students who did and did not complete the orientation program and found a significant difference for completion, $\chi^2(1, N = 499) = 16.28, p < .05$. A significance value below 0.05 allowed for the rejection of the null hypothesis. This finding was consistent with results previously reported regarding students who completed a college student orientation program and retained at a higher rate (Joo, Seo, Joung, & Lee, 2012; Mullendore & Banahan, 2008; Woolsey & Miller, 2009; Howell & Buro, 2010; Sparkman, Maulding, & Roberts, 2012; Tinto, 1993;

and Morrow & Ackerman, 2012). The finding was also consistent with results previously reported regarding retention and achievement (Woolsey & Shepler, 2011). Students who completed programs such as the online orientation program were less likely to depart from college and successfully completed requirements (Bean, 1982). However, the results did not align with the findings of a study that focused solely on the location of a student's home city identified as rural in relation to a university location as having a statistical significance regarding retention when combined with additional orientation support programs (Williams & Luo, 2010). The significant difference in Question 1 indicated a difference in student groups and retention without having the influence of home location as a major factor. Also, in the longitudinal study the college's orientation program was identified by students as assisting with adjustment to college life, but overall results did not indicate an increase in retention rate outcomes (Perrine & Spain, 2009).

In Question 2, the results indicated there was a statistically significant difference in average GPA based on race and ethnicity between students completing a college online orientation program and students not completing the program. A t-test examined average GPA over a 2-year period for students who did and did not complete the orientation program, controlling for race/ethnicity and found no significant difference for completion, The p-value for GPA at the end of the second year was .000. Since the p-value was less than .05, the null hypothesis could be rejected. The finding for this question was consistent with previously reported results that included a higher GPA for students who completed orientations and support programs (Palmer, Davis, & Maramba, 2011). Programs such as the online orientation program are mentioned by students as

providing confidence regarding earning higher grades (Perrine & Spain, 2009). However, the finding was not consistent with the results of the results previously reported regarding other programs that did not result in a statistical difference in GPA after students completed the orientation program (Strayhorn, 2010; Smith & Zhang, 2009). Limitations of research regarding the study of GPA at institutions included the use of data from a single institution and additional factors of study success not being addressed (Smith & Zhang, 2009). These limitations may have resulted in different outcomes as compared to other institutions. GPA based on completion or non-completion of the online orientation did indicate a significant difference with students completing an online orientation program.

Because a statistically significant difference occurred in Question 1 with students retaining at a higher level who completed the online orientation, the online orientation program may be evaluated by administrators and possibly be considered as a mandatory requirement for students. The results from Question 2 included a statistically significant difference with students having a higher GPA when completing the online orientation program as compared to students who did not complete the program provided additional support for this program in regards to retention or academic success. GPA and retention studied in terms of the online orientation program may reveal a need to combine the orientation with other support programs with the goal of promoting academic success.

Summary

The findings of this study illustrated that a college online orientation program had a significant difference on retention in regards to students who completed the orientation program and those who do not. The study results indicated that the students who

completed the online orientation program retained at a higher rate than those students who did not complete the online orientation program. The findings also indicated that GPA and retention had a linear relationship and a significant difference existed in the GPA of students completing the online orientation and the students who did not complete the program. Also, the findings included race and ethnicity as a controlled variable in regards to the two groups of students who completed and did not complete the online orientation program.

The findings helped to illustrate how a support program may influence a student in retaining at educational institutions. While the study was not a cause and effect study, there was still a significant difference between students who completed the online orientation program and those students who did not in regards to retention. In regards to the question of GPA and the online orientation program, the findings indicated a significance difference. It is recommended that further study occur due to the 2-year period of study and the question of whether a longer time period may yield different results. Also, in regards to the variable of race and ethnicity and retention, further study may provide research worthy of continued examination.

The results of the study were consistent regarding the literature in that support programs such as an online orientation program and retention are positively associated. The finding in this study that GPA and participation in the online orientation program have a significant relationship was consistent with the majority of the literature but did not align with a few studies. Further study is recommended in order to gain more knowledge in the area of retention and academic success.

Chapter 5: Implications, Recommendations, and Conclusions

Managers from the private and public sectors have the challenge of reviewing programs within their organizations that address the topics of orientation and retention in an attempt to retain personnel and avoid the costs associated with frequent turnover in staff (Jenkins, 2009; Nitecki, 2011). Likewise, the problem that was addressed in this quantitative, non-experimental, comparative study was a business challenge for college administrators as low student success rates measured by retention and student grade point averages at community colleges lead to higher dropout rates (Vennestra, 2009). The purpose of this study was to use existing data to examine whether or not students who completed a college online orientation program had different rates of retention and grade point average (GPA). The research questions were selected because the business challenge that was addressed by managing the issue of retention in educational institutions was not only the loss of students, but also the loss of college revenue. A better understanding of support programs such as online orientation was necessary in order to study levels of retention and academic achievement. Orientation programs existed in the public and private sectors, and were important for educational institutions and private companies (Jenkins, 2009; Nitecki, 2011).

A quantitative, comparative method was used to consider the research questions. The population size was defined as a cohort of all first-time full-time and first-time part-time students of the college selected for this study from one academic term. The total population the student cohort from which the sample was selected was 1,643 and the student sample size of the study was 998 (Athens Technical College, Orientation and Registration Report, 2010). A matched sample consisted of 499 of students who

completed the orientation with 499 students who did not complete the program. Full-time and part-time status, race/ethnicity, and gender were the matching variables that were used. Since the variable of retention was categorical, a nonparametric procedure, the Spearman's rank order correlation coefficient (Spearman's rho) was performed to determine the strength of the relationship of grade point average (GPA) and retention. A chi-square analysis and a t-test analysis were used to examine the relationship of a group of students who completed the online orientation and a group of students who did not complete the online orientation program in regards to retention rates, grade point averages and race and ethnicity, and retention rates and race and ethnicity.

Limitations in this study involved addressing the confounding variables that included the potential impact of computer access and the computer literacy of the participants. These variables were addressed by results from the college's student satisfaction survey analysis that included an annual survey. The results indicated that 97% of students who completed the survey had a computer at home, and 88% had Internet access at home. The remaining 12% of students who indicated they did not have Internet access at home stated that they had access through a local public library or on-campus computer lab (Athens Technical College Survey Analysis, 2011). External validity issues in this study included avoiding the practice of applying inferences from this study to the population at other institutions. Additionally, methodological limitations in this study included that this was an applied study with limited data from one institution and sample size from one educational organization. This limits the results of the study being generalized as applicable for other educational institutions. The data gathered was self-reported from archival data from the educational institution but was provided from

internal and external information systems that have the capability to detect errors in data reporting.

The ethical dimensions of the study were minimal but included refraining from implying that this study will yield the same results at other educational institutions. The main ethical issue of this study was assuring the confidentiality of all archival, participant data at all times. In this regard, no identifiable information regarding students or groups was included in the study.

This chapter will address each research question and hypothesis of the study, drawing logical conclusions. The potential limitations and possible effects on the interpretation of the results will be discussed. The implications of the study results in regards to existing literature will be addressed, and how the study results fit within the context of existing literature will be explained. Recommendations concerning the practical applications of the study, placing it in a broader social context, will be offered along with a conclusion that presents recommendations for future research.

Implications

Based on a comparison of two student groups, students who completed an online orientation program and students who did not complete the program, a significant statistical difference occurred regarding retention. The findings support that the orientation program was linked with retention rates (Woolsey & Miller, 2009). The overall retention rate of 29% in the study of the matched sample illustrated the problem of low retention rates in educational institutions (Athens Technical College Institutional Effectiveness Performance Plan, 2010). The 10% difference in higher retention rates for students who completed the online orientation program and students who did not

complete the program was worthy of examination as educational institutions have goals to improve retention rates by 5% annually (Athens Technical College Institutional Effectiveness Performance Plan, 2010). However, this study was not causal, and as such, it cannot be inferred that the orientation was the only factor influencing retention rates. Each of the research questions focusing on retention and grade point average (GPA) controlling for race and ethnicity will be addressed in the following section.

Research Question 1

Q1.: What is the difference, if any, in average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program? The hypothesis to test this research question was as follows:

$H1_0$: There is no significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

H1a: There is a statistically significant difference on the variable of average retention rates of the 2-year period between students at the college completing a college online orientation program and students not completing the program.

In regards to Question 1 retention and comparison groups of students who completed the online orientation and students who did not complete the online orientation, a significant difference was found to exist between average retention rates of students who completed the online orientation. A chi-square test examined average retention rates over a 2-year period for students who did and did not complete the orientation program and found a significant difference for completion, $\chi^2(1, N = 499) =$

16.28, $p < .05$. A significance value below 0.05 allowed for the rejection of the null hypothesis. Students who completed the online orientation retained at a higher rate than students who did not complete the online orientation program. A matched sample of 499 was selected from the 1,144 students who completed the orientation with students who did not complete the program. The student sample size of the study was 998 (499 completers of the online orientation program and 499 non-completers of the online orientation program). In an effort to control variables that may influence the outcome of the study a matching sample process was used. The results indicated that of the 144 (28.86%) students who completed the online orientation support program retained as opposed to 90 (18.03%) students who did not complete the program. This finding was consistent with results previously reported that stated new student orientation programs were offered to promote academic success and resulted in higher retention rates (Dean, Saunders, Thompson, & Cooper, 2011; Joo, Seo, Joung, & Lee, 2012; Mullendore & Banahan, 2008; Woolsey & Miller, 2009; Bean, 1982; Sparkman, Maulding, & Roberts, 2012; Tinto, 1993; Morrow & Ackerman, 2012). The finding was also consistent with orientation programs creating a link between early experiences and retention (Woolsey & Shepler, 2011). The use of technology used with the online orientation program was consistent with the use of technology in other programs that focused on achievement functions to promote learning at the highest level (Howell & Buro, 2010). In addition, this finding was also consistent with the conceptual framework outlined in the models and theories of Bandura, Bean, Tinto, and Astin indicating support programs lead to higher retention of students. Specifically, the self-efficacy theory, embedded as a component of the social cognitive theory, emphasized performance achievements such as

completion of online orientation programs (Bandura, 1997). Next, the Student Attrition Model with emphasis on retention and motivation stated that students were motivated to succeed through multiple types of support programs (Bean, 1982). Additionally, Tinto's model of student attrition focused on retention through the use of orientation programs and Tinto's theory of integration focused on using support programs such as online orientation programs to integrate students and keep them retained (Tinto, 1993). Next, Astin's developmental theory of student involvement focused on creating programs that promoted belief that students who exerted efforts on support programs such as the online orientation program would retain and succeed at a higher rate (Sparkman et al., 2012). All of the theories and models provided support that an online orientation program allowed students the opportunity to perform tasks, and an increase in confidence and self-efficacy.

In addition, the findings are consistent with online programs that resulted in higher retention rates that were studied at other educational institutions (Fowler & Boylan, 2010). However, in a longitudinal study the college's orientation program was identified by students as assisting with adjustment to college life, but overall results did not indicate an increase in retention rate outcomes (Perrine & Spain, 2009).

Research Question 2: What is the difference, if any, in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity? The hypothesis to test this research question was as follows:

$H2_0$: There is no significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

H2a: There is a statistically significant difference in average GPA between students completing a college online orientation program and students not completing the program, controlling for race/ethnicity.

A t-test examined average GPA over a 2-year period for students who did and did not complete the orientation program, controlling for race/ethnicity and found a significant difference for completion, $t(997) = 94.72, p < .05$. Since the p-value was less than 5% the null hypothesis could be rejected. The mean GPA for completers was 2.98 and the mean GPA for non-completers was 2.77. The mean GPA for each racial/ethnic group (completers) was Asian 2.89, Black or African American 2.47. Hispanic 2.71, Unknown 3.06, and White 3.11. The mean GPA for each racial/ethnic group of (non-completers) was Asian 2.38, Black or African American 2.67, Hispanic 3.16, Unknown 2.92, and White 2.85. The p-value for GPA at the end of the second year was .000. The finding for this question was consistent with the results previously reported (Palmer, Davis, & Maramba, 2011). However, the finding was not consistent with the results of (Strayhorn, 2010; Smith & Zhang, 2009). GPA controlled for race and ethnicity did indicate a significant difference with students completing an online orientation program as compared to students who did not complete online orientation. While higher GPAs have been identified as a predictor of academic success, lower GPAs were linked with higher departure rates from educational institutions (Brady-Amoon & Fuertes, 2011). While the literature supported an evaluation of race and ethnicity of students in regards to

GPA (Smith & Zhang, 2009; Brady-Amoon & Fuertes, 2011), the finding for this question did result in a statistical difference between students completing a college online orientation program and those who do not complete the program.

Implications for practice include continued application of the online orientation program with implications for future research involving the study of race and ethnicity of students who complete the online orientation in order to determine the outcome in regard to retention and race and ethnicity. Based on research results that indicated race and ethnicity were significantly correlated with retention (Douglass & Thomson, 2010). The development and implementation of various types of orientation programs may provide opportunity for additional study and measurement of outcomes. Additional implications for practice include consideration by college officials to make the online orientation program mandatory. Although in this study there was a statistical significance between students who completed the online orientation and those students who did not complete the program in regards to GPA, this study included data for a 2-year period and further research may provide varied results. The statistically significant difference in retention between students who completed the online orientation and the students who did not provided the opportunity to review the number of students who completed the program and retained as compared to the students who did not complete the program and retained. The results indicated that 144 (28.86%) students who completed the online orientation support program retained as opposed to 90 (18.03%) students who did not complete the program.

Recommendations

Based on the results of this study, recommendations include additional analysis over a longer period of time as this applied project included a 2-year time period. Continued study would provide additional outcomes, and ongoing analysis could result in adjustments to the online orientation program. This additional analysis may also consider studying additional variables such as age and educational background.

Future research. Future research may include conducting this study at additional institutions as the results from this applied study should not be generally applied to other educational institutions. Instead, this study may be replicated, and data specific to those educational institutions should be analyzed. The findings of this study suggest that online orientation can have a positive influence on student retention rate. Therefore, college administrators may want to conduct similar studies at their institutions to evaluate outcomes regarding orientation programs. Future research is needed, however, of the effects of online orientation on retention across a wider sample of colleges and universities, students, and time periods.

Additional recommendations for future research include conducting a qualitative study to identify the programs' strengths and how they address their approach to learning (Engstrom & Tinto, 2008). This recommendation to conduct qualitative studies would include interviewing completers and non-completers in an effort to gain additional information regarding the orientation support programs. Also, future research recommendations include the completion of other quantitative studies that focused on additional variables such as developmental programs in order to determine if these additional variables have a correlation with retention rates (Fike & Fike, 2008). This

study does not establish causation but future research may include conducting an experimental design in order to establish cause and effect in regards to the outcomes of the online orientation program with retention and success. Various types of orientation programs may be developed including face-to- face formats and compared with the online orientation program.

Future practice. Different types of orientation programs may be implemented and should be compared and contrasted. Other colleges could replicate the online orientation program and review the outcomes in order to determine the effectiveness of the program in regards to retention rates. Community college managers may review data in order to make adjustments in the support program of online orientation and address the issue of retention and success (Jenkins, 2009; Mbuva, 2011). These changes could include financial implications for educational institutions and increase revenue which may lead to jobs for faculty and the provision of services to students (Hall, 2010). With higher revenue due to retention of students, important services are provided, student needs are met at a higher rate and more students persisted at the institution. With the paying end-user retained, the financial stability of the organization was secured (Kim, 2010).

Recommendations for items in the online orientation program that could change in the future included upgrading technology features such as the ability for students to interact with students as they share testimonials regarding their student experience at the college. Including additional interactive technology may provide students the capability to interact with other students. Additional orientation programs, such as a face-to-face format, may provide students access to support programs. Recommendations include

addressing the issue of students who do not have Internet access or students who prefer a face-to-face format by providing various types of orientation programs. Also, an enhancement of the assessment at the end of the online orientation program would allow for additional investigation regarding the attitude of participants of the online program and possible link to retention and academic success.

Conclusions

The purpose of this quantitative, non-experimental, comparative study was to use existing data to examine whether students who completed a college online orientation program had different rates of retention and grade point average (GPA) than those who did not complete an orientation. The study was important from a business standpoint because the loss in students who were not retained or were not academically successful resulted in a loss of revenue for the institution. By studying a matched sample, it was found that students who completed an online orientation retained at a higher rate than students who did not complete the online orientation program. The pair matching controlled for the variable of race and ethnicity. Therefore, a significant difference existed between the two comparative groups that were studied in regards to grade point average and completion of the online orientation program. Based on these results, it is recommended that further study occur at the current educational institution in order to ensure that the online retention program remain a positive factor regarding retention. Similar studies could be conducted at other educational institutions to compare results and review findings. As governments continue to balance budgets with cuts to education spending and the economic recovery continues to move at a slow pace, college administrators will look for ways for institutions to provide the best quality education

while remaining financially stable. An examination and analysis of student support programs such as online orientations could prove to be a worthwhile project in this endeavor.

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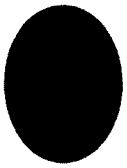
Appendixes

Appendix A: ATC IRB Approval



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Flora W. Tydings, Ed.D.
President

April 1, 2013

Dear Northcentral University Internal Review Board.

This letter of permission grants Andrea D. Daniel approval to use existing data in order to conduct a study to examine whether students who completed a college online orientation program have different rates of retention and grade point average as compared to a group of students who have not completed the program. It is my understanding the data is archival in nature and includes a population size defined as all first-time full-time and first-time part-time students of Athens Technical College. Archival data will be accessed through the Integrated Postsecondary Education Data System (IPEDS) reports, the technical college system's database entitled the Knowledge Management System (KMS), the college's student information system (BANNER), and college online report management system. College staff will provide Ms. Daniel the existing data.

This proposed study will allow for the assessment of the online orientation program in regards to retention and grade point average and fill the gap in knowledge as program outcomes need to be studied. Ms. Daniel will be presented with redacted student information. The results of the study will be used in a report for college officials to review in order to adjust support programs if needed. The time frame Ms. Daniel may work with college officials to access archival data is for a period of one year and may be extended if necessary.

Respectfully,

Flora W. Tydings

Dr. Flora W. Tydings
President