

Rowan University

Rowan Digital Works

Theses and Dissertations

12-23-2016

Online versus on-ground: student outcomes and the influence of student engagement in a college success course

Theresa Elizabeth Orosz
Rowan University

Follow this and additional works at: <https://rdw.rowan.edu/etd>



Part of the [Higher Education Commons](#)

Recommended Citation

Orosz, Theresa Elizabeth, "Online versus on-ground: student outcomes and the influence of student engagement in a college success course" (2016). *Theses and Dissertations*. 2341.
<https://rdw.rowan.edu/etd/2341>

This Dissertation is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

**ONLINE VERSUS ON-GROUND: STUDENT OUTCOMES AND THE
INFLUENCE OF STUDENT ENGAGEMENT IN A COLLEGE SUCCESS
COURSE**

by

Theresa E. Orosz

A Dissertation

Submitted to the
Department of Educational Services and Leadership
College of Education

In partial fulfillment of the requirement

For the degree of
Doctor of Education

at

Rowan University
September 26, 2016

Dissertation Chair: Patricia Donohue, Ph.D.

© 2016 Theresa E. Orosz

Dedications

This dissertation is dedicated to my husband Charlie, my children, Steve and Pam, and the memory of my parents, Robert and Gladys Short. My dad had a favorite saying: “Anyone can float and drift along and dream. But it takes a live one to swim against the stream.” You have all made me who I am today. It has been a long journey, with unexpected twists and turns along the way. This would not have been possible without your love, support, and understanding. Thank you for inspiring me to rise to the challenge and swim against the stream!

Acknowledgments

I would like to express my sincere appreciation to my chairperson, Dr. Patricia Donohue, for her guidance and patience throughout the dissertation process. Your insights and expertise were instrumental in helping me conceptualize my topic and see myself as the expert. I would also like to offer my special thanks to the other members of my dissertation committee: Dr. Monica Reid-Kerrigan, for nurturing the development of my research skills, and Dr. Lawrence Nespoli for his enthusiastic support of me and this doctoral program. This research would not have been possible without the help of Dr. Christine Harrington, who was a source of encouragement and a fount of information on the college success course, the instructors, who welcomed me into their classes, and the students, who gave of their time to participate in my study. Lastly, I want to thank pal o' mine, Alice Picardo. You have been there for me through thick and thin. I could not have done this alone. I am grateful we accomplished this milestone together. Woo woo!

Abstract

Theresa E. Orosz

ONLINE VERSUS ON-GROUND: STUDENT OUTCOMES AND THE INFLUENCE OF STUDENT
ENGAGEMENT IN A COLLEGE SUCCESS COURSE

2016 - 2017

Patricia Donohue, Ph.D.

Doctor of Education

Online course enrollments are growing despite concerns about higher withdrawal rates and lower persistence rates, academic performance, and levels of engagement (Bambara, Harbour, Davies, & Athey, 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). College success courses, which are meant to bolster new students' academic skills and foster engagement, are being offered online, placing academically inexperienced students in a high risk learning environment. This mixed methods study sought to understand the experience of community college students enrolled in online and on-ground sections of a college success course and how engagement may have influenced their outcomes. Despite similarly optimistic outlooks about course learning outcomes achievement, online students fared significantly worse than their on-ground peers in terms of final exam grades, overall course grades, and term GPA. While course abandonment occurred in the online sections, withdrawal and persistence rates were not significantly different; however more online students returned in the next semester on a part time basis. For both groups of students, academic engagement exceeded social engagement, as time and technology impacted their approach to the course. The challenges first semester online students encounter and the limitations of the Learning Management System as a measure of engagement are discussed, along with implications for practitioners and recommendations for future research.

Table of Contents

Abstract	v
List of Figures	xi
List of Tables	xii
Chapter 1: Introduction	1
Background	1
Problem Statement	2
Purpose of the Study	3
An Overview of College Success Courses.....	3
Higher Education in the Twenty-First Century	5
The Role of College Success Courses Today	9
Technology and Distance Education	10
Student Engagement	13
Research Questions	14
Significance of the Study	15
Scope of the Study	16
Definition of Terms.....	17
Limitations	20
Chapter 2: Literature Review	23
Introduction.....	23
Theoretical Framework	23
The History of College Success Courses	28
College Success Course Research	30

Table of Contents (Continued)

Student Persistence	34
Distance Education and the Growth in Online Courses	38
Persistence and Achievement in Online Courses.....	41
Online Persistence and Achievement at the Research Site	44
Student Perspectives of Online Courses	44
Student Engagement	46
Engagement in Online Courses.....	49
Chapter 3: Methodology	53
Introduction.....	53
Research Questions	55
Research Design.....	57
Assessment Instruments.....	60
Validity	65
Data Collection	65
Data Analysis	67
Data Interpretation	68
Pilot Study.....	69
Credibility and Bias	73
Description of Setting	76
Study Sample	83
Data Collection	90
Data Analysis	94

Table of Contents (Continued)

Chapter 4: Findings	100
Introduction.....	100
Theoretical Framework	101
Research Questions	102
Student Outcomes	102
Self-Assessment of Course Learning Outcomes.....	103
Final Exam Grades.....	108
Overall Course Grades	114
Term Grade Point Average	116
Withdrawal Rates.....	120
Persistence Rates.....	122
Summary of Quantitative Findings.....	125
Student Engagement	126
Level of Involvement: On-Ground Students.....	127
Level of Involvement: Online Students	130
Nature of Involvement: Student to Student Interaction	139
Nature of Involvement: Student and Instructor Interaction	143
Nature of Involvement: Student and College Personnel Interaction	147
Student Engagement's Influence on Student Outcomes	153
The Level of Involvement and Student Outcomes	153
The Nature of Involvement and Student Outcomes.....	155
Chapter 5: Conclusions and Recommendations	157

Table of Contents (Continued)

Introduction.....	157
Purpose of Study.....	157
Value of Study	158
Presentation of the Conclusions.....	159
Research Questions and Related Findings.....	160
Approach to the Study	165
Conclusions.....	167
Academic Engagement Exceeded Social Engagement Among Both Groups of Students	167
Learning Management System (LMS) Data are Imperfect Measures of Online Student Engagement	169
Time and Technology Impacted Students' Approach to the Course	171
Course Abandonment Occurred Despite Online Students' Apparent Engagement.....	173
Online Students Articulated a Disparity between Perception and Reality that was not Evident with On-Ground Students	176
Recommendations.....	179
Recommendations for Practice	180
Recommendations for Research	183
Recommendations for Policy.....	186
Implications for Leadership	187
Final Thoughts	188
References.....	190
Appendix A: Student Self-Assessment Questionnaire	201

Table of Contents (Continued)

Appendix B: Final Exam	202
Appendix C: Classroom Community Scale	217
Appendix D: Interview Protocol.....	220
Appendix E: On-Ground Student Informed Consent (Questionnaires)	223
Appendix F: On-Ground Student Informed Consent (Interview).....	225
Appendix G: Student Information Sheet.....	227
Appendix H: Online Student Invitation (Questionnaires)	228
Appendix I: Embedded Alternate Consent Form.....	229
Appendix J: Online Student Invitation (Interview)	230
Appendix K: Alternate Informed Consent.....	231

List of Figures

Figure	Page
Figure 1. Theoretical Framework	27
Figure 2. Unsuccessful Students' Grade and Term GPA	119
Figure 3. Spring 2015 Persistence by Enrollment Status.....	123
Figure 4. Fall 2014 College Success Course On-Ground Student Absences	128
Figure 5. Average Hours, Sessions, and Mouse Clicks per Tool	134
Figure 6. Outliers' Range of Online Activity	137

List of Tables

Table	Page
Table 1. Age.....	86
Table 2. Gender.....	87
Table 3. Race and Ethnicity	88
Table 4. Other Characteristics.....	89
Table 5. Student Self-Assessment Questionnaire Results	104
Table 6. Classroom Community Scale (CCS): Learning Sub-Scale Scores	108
Table 7. Final Exam Score Distribution	109
Table 8. Final Exam Score Statistics	110
Table 9. Learning Outcome #1: Discuss and Apply Study Skills and Student Success Research to Daily Practices as a College Student	112
Table 10. Learning Outcome #2: Identify and Critically Evaluate Information Related to Success in College	113
Table 11. Learning Outcome #4: Identify and Engage in Productive and Ethical Student Behaviors	113
Table 12. Overall Course Grade Distributions	114
Table 13. Term Grade Point Average	117
Table 14. Success Data	118
Table 15. Withdrawal Activity: Fall 2014	120
Table 16. Persistence Activity: Fall 2014 to Spring 2015	122
Table 17. Fall 2014 LMS Activity: Average Hours per Tool.....	131
Table 18. Fall 2014 LMS Activity: Average Number of Sessions per Tool	132
Table 19. Fall 2014 LMS Activity: Average Number of Mouse Clicks per Tool	133
Table 20. Classroom Community Scale (CCS): Connectedness Sub-Scale Scores	150
Table 21. Classroom Community Scale (CCS): Overall Scores.....	151

List of Tables (continued)

Table	Page
Table 22. Level of Involvement: Average Hours Spent on the Course	155

Chapter 1

Introduction

Background

The evolving role of technology in higher education has been the source of much discussion and debate, particularly with regard to online learning. Nationally, the past decade experienced a steady increase in the number of college students taking online courses. In recent years, while higher education has experienced overall declining enrollments, distance education enrollment has continued to grow. In 2014, more than one in four (28%) of all college students were taking at least one of their courses at a distance, with over two-thirds (67%) doing so at a public institution (Allen & Seaman, 2016, p. 12).

In New Jersey, the unduplicated head count of community college students taking online courses increased 3.6% from fall 2013 to fall 2014, representing 8.5% of the total number of credits generated within New Jersey's community college sector. On average, the number of online credits taken by community college students was 4.7. As reported in fall 2014, the unduplicated head count of community college students enrolled in online courses had grown 26.4% over the past five years (New Jersey Council of County Colleges, 2015).

As these national and state statistics show, online education has become part of the higher education landscape. As a result, more courses are being considered in terms of their potential for online delivery. This includes college success courses. At the research site, a mid-sized, suburban community college with a population of just over 12,000 students, the college success course is required of all first semester students who

have tested into two or more developmental areas. In response to the institution's positive growth in online course enrollment and to address the diverse needs of its students, it first began offering online sections of the college success course in the spring 2012 semester.

Problem Statement

College success courses play an integral role in promoting the success of entering students. Over the last 40 years, they have become a ubiquitous feature of most students' first year experience, particularly for students enrolled in developmental courses (Boudreau & Kromrey, 1994; Thelin, 2004). College success courses facilitate the transition to college by providing students with a supportive learning environment and opportunities to connect with instructors, campus staff and resources, and fellow students. Until recently, this has been accomplished primarily through classroom-based instruction, often in a seminar format. However as the breadth of online offerings broadens, college success courses are also transitioning to online formats. Despite the growing popularity of web-based courses, recent studies of online learning have consistently reported higher withdrawal rates, lower persistence rates, weaker academic performance, and lower levels of engagement among students in online courses (Bambara, Harbour, Davies, & Athey, 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). Given these troubling findings, offering college success courses, which are designed to bolster first semester students' academic skills, foster student engagement, and promote persistence, in an online format appears antithetical to the underlying philosophy of the course, potentially placing academically vulnerable first semester students at an even greater disadvantage.

Purpose of the Study

In New Jersey, online college success courses are becoming more commonplace. A search of the spring 2012 course offerings of New Jersey's nineteen community colleges found that five institutions, including the research site, offered fully online sections of their college success course. By the fall 2015 semester, the number of institutions offering fully online college success courses had increased to nine, with one institution offering the course in a hybrid format. As these numbers show, community colleges are responding to the steady increase in the number of online students. In order to meet the educational needs of this growing segment of community college students and to ensure that they have access to the same fundamental information that is provided to students in on-ground classes, it is essential to provide an online alternative to the traditional college success course. The purpose of this study was to understand the experience of students in the online and on-ground college success course in terms of their engagement with the course and how that engagement may have influenced student outcomes. To do so, the following overarching question was addressed: What are the outcomes among students in the online and on-ground sections of the college success course and how does engagement influence those outcomes?

An Overview of College Success Courses

Much has been written about the relationship between students' first-year experience and their academic success. Research by Shugart and Romano (2008) has found that a student's success, on a first attempt, during their first 15 semester credit hours is a significant predictor of graduation (pp. 31 – 32). At community colleges throughout the United States, college success courses routinely comprise some portion of

a student's first 15 credits. Of the 1,019 four-year and two-year institutions responding to the 2009 National Survey of First Year Seminars, 87.3% reported offering a college success course (National Resource Center for the First-Year Experience and Students in Transition, 2009). A review of New Jersey community college catalogs determined that all 19 community colleges provide some type of college success course for first year students.

A 2001 First-Year Initiative benchmarking survey identified four key thematic types of college success courses: the college transition theme which emphasizes the development of academic and student success skills; the special academic theme which examines a topical issue unrelated to college transition; the discipline-based theme which introduces students to a major or academic area; and the remedial/study skills theme which presents basic study skills. Nearly three-quarters (73%) of survey respondents reported that their institutions offered the college transition theme seminar (Swing, "What Type of Seminar is Best?," 2002).

The same survey found variations in the course credit hours offered by institutions. Forty percent of respondents offered one credit college success courses, 48% offered either two credit or three credit courses, and 12% offered non-credit courses or courses in excess of three credits (Swing, "How Many Weekly Contact Hours is Enough?," 2002).

In addition to variations in themes and credit hours, placement criteria for college success courses range from entirely voluntary, to mandatory for all entering students. Along this continuum, enrollment may depend upon a student's developmental course needs or disclosed learning disabilities.

Although course themes, credit hours, and placement criteria may differ among institutions, college success courses share a common goal of helping students “identify campus resources, establish relationships with other students and with faculty members, and assess and improve their academic and life management skills” (Stovall, 2000 as cited in Hope, 2010, p. 3). In doing so, these courses address the deficits of under-prepared students and ease the transition for prepared students, providing all new students with the opportunity to cultivate a sense of self as learner, develop a sense of personal responsibility for learning, engage in the campus community, and internalize the use of resources and behaviors that promote success (Hope, 2010, p. 9).

Higher Education in the Twenty-First Century

While the overarching goal of college success courses has remained fairly consistent over the years, the educational environment in which these courses are offered has undergone significant change. Higher education has reached a crossroads, where issues regarding decreased funding, increased expectations, and rapidly changing technology are converging to create new challenges for colleges and universities in the twenty-first century (Mehaffy, 2010, p. 2).

Funding has affected all sectors of higher education. For New Jersey community colleges, the tri-partite funding formula has become a distant memory. Revenue is no longer derived equally from county appropriations, state aid, and tuition and fees. In light of diminishing revenues from government sources, tuition increases have placed more of the burden on students. In 2009, tuition and fees accounted for 55.5% of the formula (of which over one-third was paid by taxpayers through federal and state student financial aid programs), while state and county funding comprised 16.6 % and 24.3% of

the formula, respectively (Lancaster & Gaskill, 2010, p. 9). However, tuition increases have not necessarily resulted in enhanced or increased services and programs for students. As costs rise, the revenue generated from tuition has been used to maintain existing services and programs. Steady enrollment growth over the last decade taxed the physical and financial resources of community colleges, prompting them to seek new income streams and ways to accommodate the growing number of students. In the last few years, these enrollment gains have given way to enrollment declines. However given the rapid technological changes brought about by the internet and its subsequent impact on distance education, colleges continue to look to online education as a source of additional revenue, a way to recoup investments in technological infrastructure, an avenue for reaching a broader student population, and a way to demonstrate commitment to “cutting edge” delivery modalities (Larreamendy-Joerns & Leinhardt, 2006, p. 571). Developing high quality online materials requires a serious commitment of financial, technological, and pedagogical resources, so while the actual delivery of courses via the internet may be cost effective, the initial and ongoing costs of maintaining well-developed online programs can prove to be quite costly (Larreamendy-Joerns & Leinhardt, 2006, p. 593). This struggle to remain current, affordable, accessible, and responsive to students is being played out amid a federal initiative that has placed increased expectations on community colleges.

In February 2009, President Obama announced his plan for the United States to become the world leader in the number of college graduates by 2020. In a July 2009 speech he highlighted the important role community colleges would play in realizing this goal. Of the approximate 8.2 million additional graduates that will be needed to regain

that top position, it is estimated that 5 million will be community college graduates (Mullin, 2010, p. 4). This will require a 50% increase in the completion rates of community college students over the next ten years (Adams, 2010).

Although the President's American Graduation Initiative (AGI), which would have provided critical funding for reaching his goal, was not enacted, President Obama's high profile speeches have helped shift the focus from community college access to community college completion, often referred to as access to success.

In April 2010, leaders from six national community college organizations signed "Democracy's Colleges: Call to Action," a commitment statement supporting the completion agenda that President Obama set in motion in 2009. The document states the participants' beliefs and commitments and asks for the support and participation of all community college stakeholders. Some of the key commitments include: changing the institutional culture from an emphasis on access to an emphasis on success; eliminating attainment gaps that separate students based on race, ethnicity, and income; and acting on facts to make positive changes that affect student success and completion ("Democracy's Colleges," 2010).

With the stage now set, a national dialogue linking student success to graduation is underway. The August 2009 Integrated Postsecondary Education Data System (IPEDS) graduation data reported a 12% two-year graduation rate for full-time, first-time, degree and certificate seeking students at public community colleges. The three year and four year rates were 22% and 28% respectively. By comparison, New Jersey's average two year graduation rate was 4%, with the respective three and four year rates reported at 15% and 23%.

A report on degree attainment from the National Student Clearinghouse examined six year outcomes for first-time, degree-seeking students who began college in 2006. It found the years 2006 to 2010 marked by a period of rapid growth in community college enrollments, with the tail of this enrollment surge experiencing a corresponding increase in the number of associate degrees awarded through the 2010 - 2011 academic year. From the academic year 2007 - 2008 to 2010 - 2011, there was a 20% increase in the total number of degrees awarded. However, during the 2011 - 2012 academic year, the number of degrees awarded dropped, adjusting the total increase through the 2011 - 2012 academic year to 18%. Despite the decrease, degree attainment percentages remained above pre-2006 levels (National Student Clearinghouse Research Center, Degree Attainment, 2012).

The National Student Clearinghouse's more comprehensive "signature" report on student degree attainment rates analyzed six-year outcomes based on the type of institution where students began their studies and found that students starting at two-year private for-profit institutions had completion rates of 61.8%. By contrast, only 36.3% of students who started at two-year public institutions earned a credential within six years (National Student Clearinghouse Research Center, Completing College, 2012, p. 27). It was also reported that of the students who began their studies at a two-year institution and earned a degree at a four-year institution, nearly two-thirds (63%) did not first obtain an associate degree (p. 9).

As these statistics show, it is clear that graduation rates must continue to improve state-wide and nationally if community colleges are to meet the President's completion agenda by 2020 (Institute of Education Sciences, 2011). A critical first step toward

improving completion rates is to ensure that students succeed through their first year of college.

The Role of College Success Courses Today

College success courses are one of the most common and popular retention strategies employed by colleges during a student's first year to improve student outcomes (Goodman & Pascarella, 2006; Hunter & Linder, 2005; Karp, 2011; Mills, 2010; Rutschow & Schneider, 2011). Although routinely cited in books and articles on student success and first year initiatives, research on the impact of college success courses did not begin in earnest until the late 1980s (Pascarella & Terrenzini, 2005). Since then, there has been a steady rise in the number of studies that have examined the efficacy of these courses. The studies, which have primarily focused on four year institutions, have generally shown college success courses to have a positive effect on student outcomes, particularly in terms of first to second year persistence, number of credit hours earned, grade point average, and graduation rates (Ben-Avie, Kennedy, Unson, Li, Riccardi & Mugno, 2012; Boudreau & Kromrey, 1994; Cho & Karp, 2013; Pascarella & Terrenzini, 2005; Schnell, Louis & Doetkott, 2003; Zeidenberg, Jenkins & Calcagno, 2007). Given the documented benefits of college success courses, it is likely that they will play a vital role in supporting the national imperative to increase community college graduation rates. What is more difficult to determine is how their role will unfold in a higher education environment that is being redefined by technology—where long held policies and practices and core ideas about the nature of knowledge and the role of the academy are being tested (Mehaffy, 2010, p.6).

Technology and Distance Education

Technological advances have altered the higher education landscape. Smart phones, tablets, e-readers, and other computing devices have become commonplace, making internet accessibility possible for scores of individuals. Blogs, wikis, social media, e-books, and learning management systems (LMSs) have transformed the way people communicate, collaborate, access information, and learn. New technology tools and growing access to the internet have had a significant impact in the area of distance education. Images of laptop-toting students at the beach, in the park, or working in bathrobes at their kitchen tables can be seen in print media, internet advertisements, and on billboards and television commercials. The convenience and flexibility of online education has been touted successfully. The first 10 years of this century were marked by rapid growth in online learning, with no slowdown in sight. Between 2002 and 2009, the number of students taking at least one online course grew at a rate that exceeded the overall enrollment growth in higher education (Allen & Seaman, 2010, p. 8).

Online course enrollment figures tell only one part of the story, however. Student perspectives provide the other. Despite the exuberance for online education that is suggested by these figures, a 2011 National Study of Undergraduate Students and Information Technology conducted by the EDUCAUSE Center for Applied Research (ECAR), reported that 36% of the students surveyed preferred a blended learning environment, where online components are combined with on-ground classes, to any other configuration of on-ground and online options. Forty-five percent of respondents reported learning more in blended classes (Dahlstrom, de Boor, Grunwald, & Vockley, p. 27). Even though blended classes were the preferred option, 65% of students attending

institutions that offered online courses reported taking at least one online course, but 58% of all survey participants indicated that online courses did not provide the same educational value as blended courses (Dahlstrom et al., 2011, p. 28). Students' mixed support for online courses is not surprising given the myriad of studies reporting higher withdrawal rates in online courses.

Higher withdrawal rates may be due in part to students' unrealized expectations that online courses are easier versions of classroom-based courses (Bambara et al., 2009; Nash, 2005). Online attrition may also be related to the characteristics of online students. Pontes, M.C., Pontes, N.M., Hasit, Lewis and Siefring (2010) examined student preferences for online courses and found that students at-risk for degree non-completion were more likely than traditional students to enroll in online courses. The risk factors identified in the study included delayed or part time enrollment, financial independence, single parent households, dependent responsibilities, full time employment, and lack of a high school diploma. Although students possessing one or more of these risk factors reported higher levels of satisfaction with online courses than traditional students, the study suggests that higher withdrawal rates may be due to the larger proportion of students enrolling in online courses who are at an increased risk for dropout (p. 8). While not specifically cited in the study, academic un-preparedness is a common risk factor associated with incoming students and is often related to many of the risk factors identified in the Pontes et al. (2010) study. This is an important consideration for the research site since enrollment in the college success course is determined by the extent of a student's developmental course needs.

Additionally, any discussion of online education must also acknowledge the dynamic nature of the learning environment. The development of new technology is resulting in more efficient tools for presenting course materials, managing discussion threads and group work, and monitoring student progress and success, while studies are beginning to provide more comprehensive information about the online student experience. As the learning environment continues to mature and more is known about the characteristics of online students, course outcomes are likely to improve, as the perceptions and experiences of the students evolve (Dahlstrom et al., 2011, p. 28).

In the 2011 ECAR study, students cited access to resources and progress reports (52%), increased productivity (44%), feelings of connection (35%), and engaging and relevant learning (33%) as the major benefits of technology (Dahlstrom et al., 2011, p. 11). As these findings suggest, technology has the potential to expand access, increase efficiency, and connect students to the resources and people that make learning relevant and engaging, but the numbers also reflect the need for improvement. Online courses are capable of providing students with learning activities and resources that promote success, but the importance of student interaction with faculty and peers cannot be underestimated. One of the goals of college success courses is to promote and enhance student engagement with campus resources, faculty, and peers. Whether physical or virtual, students want and need to feel connected to their educational environment. This makes student engagement an important consideration in any online course.

Student Engagement

The concept of student engagement has appeared in the literature for over 70 years, developing from Tyler's "time on task" model in the 1930s, to Astin's theory of "student involvement" in the 1980s (Kuh, 2009, p.6).

In the last decade, the subject of student engagement has figured prominently in discussions surrounding student success due, in large part, to the widespread use of the Community College Survey of Student Engagement (CCSSE) and the Survey of Entering Student Engagement (SENSE). Developed by the Center for Community College Student Engagement at the University of Texas at Austin, CCSSE and SENSE have become preeminent tools used on a large scale basis to help two year institutions identify and improve practices that promote student success. CCSSE assesses the extent to which all students are engaged in educational practices and activities that have been shown to improve success and retention. SENSE asks first semester students to reflect on their academic and services-related experiences during the fourth and fifth weeks of the fall semester. With the establishment of benchmarking norms and a commitment to the public reporting of results, these surveys have helped focus national attention on the concept of student engagement (Center for Community College Student Engagement, 2012). As a result, the last decade has seen an abundance of literature on the topic, resulting in myriad variations of the definition for student engagement. At the same time, technology has been altering the higher education landscape, prompting discussions concerning its efficacy and ability to connect students in meaningful ways to their academic environment. Within the community college sector, there is general agreement that technology can be used effectively to improve student learning as long as it "expands

or enhances the teaching-learning process” but, as Mellow and Heelan (2008) caution, “It is important to apply the measuring stick of engagement to technology-assisted learning” (pp. 120 – 121).

As used in this study, the definition of student engagement was derived from two key sources. Synthesizing elements from Astin’s Theory of Student Involvement and Tinto’s Model of Student Departure, student engagement is defined as a two-fold concept comprised of the level of involvement students invest in the learning process and the nature of the involvement that occurs as part of the learning process.

The level of involvement represents the quantitative aspect of student engagement. It was measured by the amount of time and energy that students devoted to the course, where energy was a construct measured by attendance records, login activity, and the frequency of students’ participation and interactions with individuals and the course material. The nature of involvement represents the qualitative aspect of student engagement. Gleaned from student interviews, it was measured by the types of academic and social involvement that occurred through students’ interactions with their classmates, the instructor, college personnel, and the course material.

Research Questions

The research questions that guided the study are as follows:

1. What are the outcomes among students in the online and on-ground sections of the college success course in terms of: final exam grades, overall course grades, self-assessment of course learning outcomes, persistence rates, withdrawal rates, and term GPA?

2. What is the level of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the level of involvement influence student outcomes?
 - b. How does this differ by delivery method?
3. What is the nature of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the nature of involvement influence student outcomes?
 - b. How does this differ by delivery method?

Significance of the Study

There has been much discussion and debate surrounding the efficacy of online courses, particularly in light of recent studies that have reported disappointing outcomes for community college students enrolled in online courses. Studies on the effectiveness of college success courses at community colleges, although positive, have been limited (Zeidenberg et al., 2007). Since the late 1980s, the majority of studies on college success courses have focused on traditional students at four-year institutions, with the most commonly assessed outcomes being student retention, persistence, grade point average, and credit completion (Cuseo, n.d.; Mills, 2010; Pascarella & Terenzini, 2005; Swing, “First-Year Initiative (FYI) Overview,” 2002). While the body of research is extensive, researchers point to a paucity of studies involving longitudinal data, cross-institutional analysis, learning outcomes assessment, and qualitative data on students’ perspectives of college success courses (Boudreau & Kromrey, 1994; Mills, 2010; O’Gara, Karp & Hughes, 2009; Swing, “First-Year Initiative (FYI) Overview,” 2002). Additionally, there

have been few, if any, published studies on the impact of online college success courses at two-year institutions.

Recognizing that most studies of college success courses have been conducted at four-year institutions, this study addressed this research gap by situating the study at a community college. While quantitative analysis of outcomes including student persistence, withdrawal rates, course grades, and term grade point averages have been the focus of recent studies of online courses and were addressed, this study contributed to the literature on students' perspectives of college success courses by gathering data on the level and nature of their involvement in the online and on-ground sections of the course. This was accomplished through the administration of the Classroom Community Scale (CCS) and individual student interviews. To address an additional area of the research that is lacking, an analysis of final exam results was undertaken, along with a student self-assessment questionnaire to ascertain students' perspectives on their attainment of the course learning outcomes. The quantitative and qualitative data collected during this study were used to examine the overall efficacy of the online college success course. In the end, the study provides college success practitioners with data that can be used to make informed decisions about course delivery that better support and advance the success of entering students at the research site and meet the needs of students who choose to enroll in online courses.

Scope of the Study

This mixed-methods study was conducted at a northeast suburban community college during the fall 2014 semester. The sample was comprised of two online sections of the college success course and two classroom-based sections of the course. This study

went beyond the usual analysis of quantitative student measures such as grade point averages, withdrawal rates, and subsequent semester enrollment and used interviews to examine students' attainment of course learning outcomes and their perspectives regarding the level and nature of their involvement with the course. The qualitative and quantitative data were examined to determine if students' achievement of the course learning outcomes and their engagement in the online and on-ground sections of the course were comparable, or if they led to other outcomes that bear further research.

Definition of Terms

For the purpose of this study, the following terms were defined as follows:

College Success Course: typically delivered in a seminar format, it is known by various names including "College 101," "Student Success," "The College Experience," and "Freshman Seminar." This course helps first semester students adjust to college by providing information about resources and services, help with choosing a major, assistance with course selection, career information, and instruction in study skills and academic success strategies. Variations in course credits, themes, and formats are common among institutions.

Distance Education: is a course delivery approach that has evolved from correspondence courses in the nineteenth century, to the use of technology in the twenty-first century as a means of delivering course content to students who are separated from the instructor by geography and/or time.

Hybrid Course: also known as blended courses, this format typically combines online and in-person course delivery. A considerable portion of the course content is delivered online, with a limited number of corresponding face-to-face class sessions.

Learning Management System (LMS): a software application that provides instructors with the tools needed to administer, document, assess, track, report, and deliver online course content to students.

Level of Involvement: represents the quantitative aspect of student engagement in terms of the amount of time and energy that students devote to the course, where energy is a construct measured by attendance records, login activity, and frequency of students' participation and interactions with individuals and the course material.

Nature of Involvement: represents the qualitative aspect of student engagement in terms of the types of academic and social involvement that occur as a result of students' interactions with their classmates and instructor, other college personnel, and the course material

On-ground Course: also known as traditional, classroom-based, or face-to-face (F2F) courses, this course delivery format does not require an online component. The course meets in a classroom, with content delivered orally and in writing.

Online Course: a course in which all of the content is delivered in an asynchronous environment using e-learning software via the internet, with no in-person (synchronous) class sessions.

Persistence: an individual phenomenon that refers to a student's continued progress toward a self-defined academic goal either in the short term such as course completion, or in the long term such as graduation (Reason, 2009, p. 660). As used in this study, persistence refers to a student's completion of the college success course and enrollment in the subsequent (winter and/or spring) semester.

Persistence Rate: as used in this study, the rate represents the percentage of college success course students who register for subsequent (winter and/or spring) semester classes

Purposeful (purposive) sampling: in qualitative research [it] means that researchers intentionally select (or recruit) participants who have experienced the central phenomenon or the key concept being explored in the study (Creswell & Plano Clark, 2011, p. 415).

Retention: an organizational phenomenon that refers to an institution's efforts to maximize the number of students who remain enrolled to graduation (Reason, 2009, p. 660). While this term is often used interchangeably with persistence, for the purposes of this study, retention refers to the long term goal of keeping students enrolled to graduation, representing the cumulative effect of persistence from one semester to the next.

Student Engagement: a two-fold concept comprised of the level of involvement students invest in the learning process and the nature of the involvement that occurs as part of the learning process

Success: completion of the fall semester with a 2.0 term GPA and a minimum grade of C in the college success course

Term Grade Point Average (GPA): the average of a student's grade points earned during a specified semester. All credit and credit equivalent courses are included in the calculation of the term GPA. For the purposes of this study, students' fall term GPA is being used as a measure of success in all courses taken during the semester.

Withdrawal Rate: the percentage of students who completed the college success course, but officially withdrew from one or more of their other courses during the fall 2014 semester by completing and submitting the necessary forms to the Office of the Registrar.

Limitations

This study was conducted at a mid-size northeast suburban community college with a total enrollment of just over 12,000 students and may only be applicable to community colleges that share similar characteristics. Given that a purposeful sampling method was used, the potential sample size of 90 participants ultimately yielded 52 participants, so it is not possible to generalize the findings beyond the students in the college success course to the institution's larger population of online students or to institutions other than the research site.

The study did not distinguish the findings based on new or returning students, full time or part time enrollment status, course repeaters, or voluntary versus mandatory registration in the course. The sample included students who had repeated the course, enrolled in the course by choice, or took the course for the first time, but not in their first semester. Although there was a risk that prior course knowledge and/or experience as a college student may skew some of the findings, the data gathered from these students were included in the study as they offered a deeper understanding of the research questions and highlighted areas in need of further study.

Since students were free to enroll in either an online section or on-ground section of the course, self-selection bias was a possibility. Additionally, although a protocol was used, the veracity of the qualitative data gathered through interviews largely depended on

the students' willingness to provide forthright, rather than expected, responses to interview questions.

Online instructors who participated in this study had extensive experience teaching the classroom-based college success course and previous experience teaching the online section. On-ground classes were randomly selected from a sample that only included evening sections that were taught by instructors who offered extra credit opportunities, used the standardized final exam, and possessed teaching experience similar to that of the online instructors.

Characteristics for all participating students were gathered as described in the study. Students were offered two additional extra credit opportunities: completing the questionnaires and participating in an interview. Students were free to choose either or both. Had a significant number of students opted for interviews, they would have been conducted until all participants had been interviewed or until the saturation point was reached, whichever occurred first. Given that 14 students chose to be interviewed, it was possible to interview all of the participants. Demographic data obtained through the institution's student information system (SIS) was used to provide descriptive statistics and background information on the participants. It included information pertaining to students' age, gender, race/ethnicity, high school graduation (U.S. or foreign) or GED acquisition, status as a first generation immigrant, and first language. This data provided a clearer picture of the sample through a description of participants' characteristics and a discussion as to whether they aligned with the institution's overall student characteristics.

The study focused on areas of research that have, to date, been largely ignored. The quantitative data that were collected, along with the qualitative interview data has contributed to the burgeoning literature on college success courses at two-year institutions and has added to the research on the efficacy of online course delivery.

Chapter 2

Literature Review

Introduction

There is no doubt that the internet is transforming the higher education landscape. It has revolutionized the delivery of course content, broadening access for individuals who might not otherwise have the means to attend college, while providing traditional students with alternatives to the bricks and mortar classroom experience. Although online learning has enjoyed robust growth in both student enrollment and course offerings over the last ten years, it is not without its shortcomings. Despite the advantages and opportunities online learning provides, a preponderance of studies point to continued concerns regarding student persistence and engagement in online courses (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). As online course offerings broaden, they are becoming available to a wider range of students, including incoming students, some of whom lack the fundamental skills and experience needed to succeed in college. For these newcomers, college success courses have traditionally provided a supportive and engaging classroom environment where such skills and experience can be developed. As an advocate for college success courses and an avid technology user, given the prevailing research, I question whether this can be accomplished in a virtual environment. Additional studies are needed to address what I view as the intrinsic incongruity of online college success courses.

Theoretical Framework

To that end, my study is informed by a theoretical framework that has been influenced by nearly a decade of experience teaching college success courses at a

community college and a keen interest in how technology can be used to enrich students' higher education experience. From an instructional perspective, I consider the content of the college success course ancillary to providing an environment that promotes student engagement. College success courses play an important role in helping new students acclimate to the college environment, particularly when the content is delivered in ways that provide students with opportunities to connect with peers, faculty members, staff, and the wealth of college information that is available to them. I use college success course content as the vehicle to provide such opportunities for students, fostering engagement by creating a sense of community that connects students to the people and the resources that contribute to persistence and success. Cultivating an engaging environment in a conventional classroom is in itself challenging, doing the same with new students in an online course likely poses additional challenges and considerations.

Determining the efficacy of an online college success course entails moving beyond grade point average, student persistence, and withdrawal rates, typical measures of student outcomes found in most studies of on-ground college success courses, to consider additional course effectiveness factors. Mashaw (2012) cites social interaction, communication, engagement, and participation as some of the factors that influence the effectiveness of online courses (p. 196). While all of these factors support the underlying philosophy of college success courses and align with what I believe to be key attributes of the course, I applied the lens of social constructivism to my study to specifically examine the influence of engagement on these typical student outcomes.

Constructivist learning theory posits that "learning engages a student's entire psychological, physiological, and emotional energy, and that the learning process is

impacted by the environment” (Mashaw, 2012, p. 195). As an extension of the constructivist worldview in which individuals come to understand the world by developing personal meaning of their experiences, social constructivism asserts that these meanings are further influenced through social interaction with others, as well as the historical and cultural norms that exist in people’s lives (Creswell, 2007, p. 21). This is of particular relevance today. Technological innovations are significantly impacting the social behavior of individuals and, by extension, longstanding historical and cultural traditions. In the technology-rich learning environment of the twenty-first century, these innovations have translated into changes in course delivery and the ways in which students and instructors interact with one another. Within the construct of this social constructivist worldview, it is the defining works of Alexander Astin and Vincent Tinto, which explore the physical, intellectual, and social aspects of student engagement, which specifically shaped the research questions and the direction of my study.

Astin’s Theory of Student Involvement is a seminal work that has influenced much of the research on student engagement. Largely normative in nature, it was developed to explain the behavioral aspects of student involvement at four-year residential colleges. When he proposed his theory nearly 30 years ago, the notion of online courses did not exist. Yet despite its age and limited scope, aspects of the theory are relevant to community colleges in the higher education environment of the twenty-first century. Essentially, Astin (1996) believed involvement was defined more by a student’s actions than their feelings. Simply stated, involvement entailed “the amount of time and physical and psychological energy that the student invests in the learning process” (p. 124). Whether online or on-ground, the amount of time and energy students

invest in their courses remains a critical element of the learning process. Independent of the delivery method however, the learning process encompasses more than mastery of course content and Astin's theory alone does not adequately address a major hurdle facing today's online students.

Online courses are beset by student persistence issues. Exceedingly high withdrawal rates are undermining a fundamental goal of online learning—to provide course and degree completion opportunities for students who are unable to attend traditional classes. In his Model of Student Departure, Tinto (1987) asserts that student persistence depends on some degree of both intellectual and social integration (p. 119). In other words, students need to be academically and socially involved if they are to have a comprehensive, relevant, and enduring learning experience. This raises questions germane to today's online learning environment.

While mere presence in a traditional classroom may, by default, account for some degree of social involvement for on-ground students, how is social involvement attained in an online class? It is much easier for an online student to lapse into anonymity in a virtual learning environment. Given the solitary nature of an online course, even academically involved students who invest time and energy in a course and are successful have reported feelings of social isolation and alienation (Bambara, et al., 2009, p. 11). Students' academic success notwithstanding, what effect might these negative feelings have on their persistence and future academic achievement, particularly academically vulnerable, first semester students in an online college success course?

Taking into account the influence of external factors on course delivery methods, through the lens of social constructivism, this study incorporates Astin's concept of

involvement and Tinto's notion of academic and social integration to arrive at a definition of student engagement that was used to examine how engagement influences the outcomes of online and on-ground students in the college success course (see Figure 1).

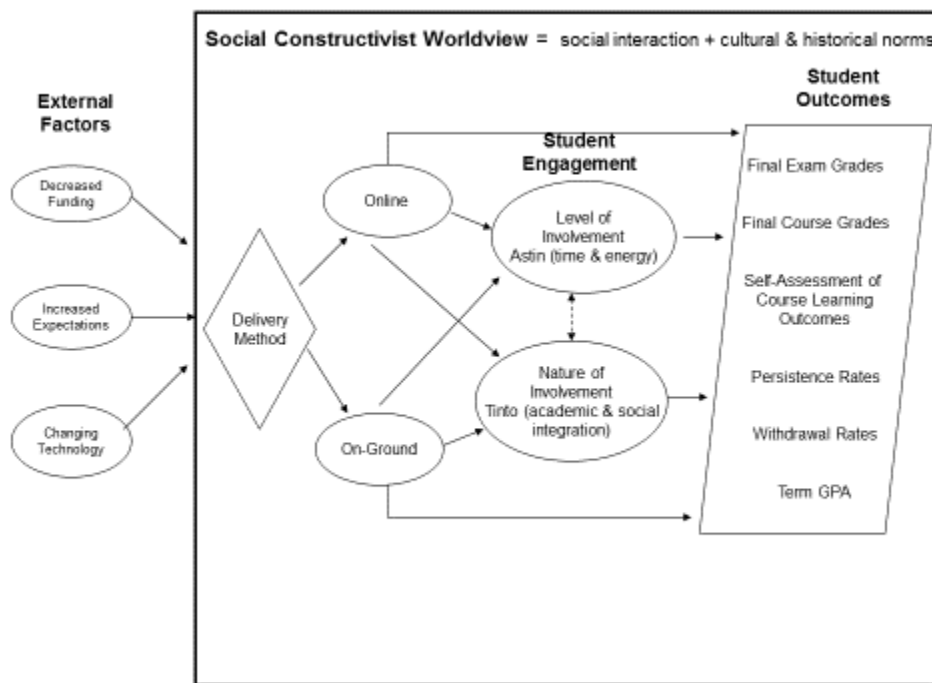


Figure 1. Theoretical Framework.

Recent trends in community college practice have seen a shift in the cultural and historical norms of classroom pedagogy, with the transition of students from receivers of meaning to constructors of meaning. Since constructivism posits that learners create meaning as it relates to their experiences, every learner's perception of the world is

unique even when ideas are shared. As a result, the measure of learning falls within the realm of the student rather than the instructor. (Baker, Hope, & Karandjeff, 2009, p. 6).

Learning has been described as an “action-oriented process and a social activity” (Chatti, Jarke, & Frosch-Wilke, 2007, p. 408). As higher education adapts its long held cultural and historical traditions to the new dimension of online course delivery, emphasis is also shifting from teaching to learning. With the “sage on the stage” yielding to the “guide on the side,” assessing the action-oriented processes and social activities that take place in courses will be vitally important. This is no less true for online courses, yet most of the research concerning online courses has focused on quantitative outcomes such as grade point averages, withdrawal rates, and persistence rates, with little or no attention paid to the social aspect of online courses. Expanding the research beyond these typical outcomes to include student engagement acknowledges, as social constructivism maintains, that student learning occurs within a larger social context. This is critical if we are to ensure that online students have a comprehensively positive learning experience.

The History of College Success Courses

College success courses are not a new phenomenon. The first course of this type was offered in 1882 at Lee College in Kentucky; however, the popularity of these courses waxed and waned throughout much of the twentieth century (University 101 Programs, 2002). College success courses reemerged in the 1970s toward the end of what many historians refer to as the “Golden Age” of higher education, the period following World War II, when colleges and universities enjoyed “the three P’s of prosperity, prestige, and popularity” (Thelin, 2004, p. 260).

For two-year institutions, the “Golden Age” marked an era of transformation and growth for the junior college movement. Initially conceived to provide the first two years of baccalaureate coursework, by the late 1940s junior colleges were evolving into community colleges, offering vocational education, terminal degrees, and transfer programs to increasing numbers of high school graduates and returning World War II veterans. From 1950 to 1960, the number of students enrolled in public two-year colleges more than doubled from 168,043 to 393,553. This was followed by a decade of rapid expansion in the number of public community colleges, with one estimate placing the number of campus openings at one per week (Thelin, 2004, pp. 299 – 300).

With the exponential growth in institutions and students, by the 1960s community colleges were expanding their curriculum and embracing the concept of “comprehensiveness” to accommodate the increasing diversity of the student body brought about by open-door admissions policies (Gleazer, 1994, p. 21). This cycle of growth and expansion prompted a refinement of the community college mission to include access, diversity, and comprehensive curricular and student support programs. This was accompanied by a philosophical shift to “organize around the learners” in order to provide effective teaching-learning processes that would make educational opportunities available to people who had not had access to them before (Gleazer, 1994, p. 22).

By the early 1970s, demographic changes in higher education were clearly evident. The number of female students began to equal and then surpass male students and the average age of students began to rise, as did the number of part time and evening students (Bogart, 2004, p. 69). It was during this time that college success courses

reemerged in response to the growing enrollment of non-traditional students, many of whom were attitudinally and academically unprepared for college work (Boudreau & Kromrey, 1994, p. 444). Prior to the 1970s, attrition was viewed with pride as confirmation of the academic rigor of an institution and as a way to identify academically weak students. With inflation adversely impacting college budgets and the end of the draft and a decline in the number of high school graduates narrowing the pool of potential students, this cavalier viewpoint fell out of favor in the 1970s. Attrition came to be viewed as a societal loss of human capital and a monetary loss to the institution (Thelin, 2010, pp. 13 – 15). In response, four-year institutions turned to college success courses to address attrition by helping students become effective learners.

Although the inflationary challenges of the decade and the decreasing pool of traditional students adversely affected four-year institutions, funding for the construction and operation of community colleges continued. With redefined missions, comprehensive offerings, and positive cash flow, community colleges flourished, attracting a diversity of students. It was not until the 1980s, after the expansion of the prior two decades abated, that college success courses would begin to be offered at two-year institutions for many of the same reasons that four-year institutions had adopted them a decade earlier.

College Success Course Research

Since the 1980s, the burgeoning research on college success courses suggests strong theoretical support for a comprehensive student success curriculum; however gaps in the literature persist. Lack of student demographic details, difficulty in identifying the most effective course elements, and studies that focus on general observations, anecdotes,

and small unique student populations are areas of research in need of further development (Hope, 2010, p. 2). Additionally, a dearth of longitudinal studies, cross-institutional analysis, learning outcomes assessment, and qualitative data on students' experiences in college success courses provides opportunities for additional research (Boudreau & Kromrey, 1994; Mills, 2010; O'Gara et al., 2009; Swing, "First-Year Initiative (FYI) Overview," 2002). To date, the majority of research on college success courses has involved four-year institutions, with an emphasis on student retention, persistence, grade point average, and degree completion (Cuseo, n.d.; Mills, 2010; Pascarella & Terenzini, 2005; Swing, "First-Year Initiative (FYI) Overview," 2002). Even so, the existing research can serve as a catalyst to help inform future studies.

In general, college success courses have been found to have a positive effect on persistence. When compared to students who did not take college success courses, research has shown that those who successfully completed a college success course demonstrated higher persistence rates from the fall to spring semester, as well as from the first to second year of enrollment. While the extent of pre-college preparation may vary, students at all levels of preparedness who completed the course returned at an overall higher rate than those who did not take the course, indicating that students of all ability levels can benefit from participation in the college success course (Fralick, 2008; Miller, Janz, & Chen, 2007).

In the long term, enrollment in college success courses has been linked to better overall academic achievement of students as measured by grade point average, credits completed, degree attainment, drop-out and stop-out rates, and academic standing (Derby & Smith, 2004; Schnell et al., 2003). A noted five year longitudinal study tracked

students who enrolled in and successfully completed a college success course and those who did not. Overall, the students who completed the college success course were more successful in terms of academic success, continued enrollment, transfer to the State University System, and degree and credential attainment (Florida Department of Education, 2006). These findings were consistent even when the data were disaggregated by college readiness, remediation needs, and race/ethnicity. Specifically, students completing the college success course were 8% more likely to earn a degree or credential. College success course students with no remediation needs were 9% more likely to complete a degree or credential, while those who needed remedial courses were 5% more likely to complete their program (Jenkins, O’Gara, & Morest, 2008).

Although the outcomes for students who enroll in college success courses have been overwhelming positive, research has been conducted which challenges the connection of those outcomes to the course. One study, found that college success course participants did not differ in terms of grades, social integration, or college satisfaction from students who had not taken the course. Instead, gender and academic achievement were the most significant predictors of college satisfaction, with high achieving women reporting higher levels of satisfaction (Strayhorn, 2009). When grade point averages and second year retention were compared among students who took the college success course and those who did not, no differences in grade point average or second year retention were found between the two groups, even after adjusting for selection bias (Clarke & Cundiff, 2011). Karp et al. (2012) maintains that long term outcomes for students who complete college success courses are not realized because students are not provided the opportunity to apply what they have learned in class to actual college

scenarios (p. 33). Likewise, while Boudreau and Kromrey (1994) affirmed the immediate academic benefits of the college success course, they acknowledged that in the long term the course had no effect on graduation rates. Although in the minority, these findings are important to acknowledge as they point to additional considerations that can highlight areas in need of further research.

Quantitative research has provided most of the data on college success courses and although qualitative studies are limited, college success course students have affirmed the connection of the course to their overall academic success. In terms of institutional and personal factors that impact community college persistence, students have reported that the course helped them obtain information about college resources, obtain information about course selection and graduation requirements, develop time management and study skills, and build important and lasting relationships with faculty and classmates (O’Gara et al., 2009).

Of the four thematic types of college success courses identified in a 2001 First-Year Initiative benchmarking survey, students enrolled in the more popular and comprehensive college transition themed course, with its emphasis on the development of academic and student success skills, reported more out-of-class engagement, better knowledge of college policies, increased confidence in their academic skills, and stronger conviction in terms of career choice and/or major (Fralick, 2008; Friedman & Marsh, 2009). The results from the national survey of first-year seminar students also found that college transition themed seminars performed best overall across the ten learning outcomes investigated by the survey (Swing, “What Type of Seminar is Best?,” 2002).

The college success course currently offered at the research site is modeled after the comprehensive, college transition themed course.

Student Persistence

Tinto's model of student departure has been described as "... the most widely used framework guiding research into the complex persistence-related interconnections among students and their college experiences" (Pascarella & Terenzini, 2005, p. 425). Based on Van Gennep's study of the rites of passage in tribal societies and Durkheim's research on the societal dimensions of suicide, Tinto (1987) posits that students move through three phases when they begin college: separation from their former communities (high school, family, friends, home), transition from the norms and behaviors of their past communities to those of their new community (college), and incorporation within the new community through academic and social activities that promote connectedness (pp. 95 – 99). It is during the incorporation phase, when students are left on their own with little external assistance, that they are most vulnerable to departure (Tinto, 1987, p. 99). Full integration in both the academic and social systems of the college is not required for persistence. Failure to integrate in either system does not necessarily lead to departure; however continued persistence is predicated on some degree of social and academic integration. According to Tinto (1987), academic integration without social integration can lead to persistence but social integration without academic integration will lead to departure (p. 119). The model views incorporation into the academic and social systems of the college as distinct, but not independent, processes. They are mutually interdependent, yet in competition with one another, as students must allocate time and energy to one at the expense of the other (Tinto, 1987, p. 119).

Despite the competing forces of academic and social integration, national data have found that nearly all students enter their community colleges determined to succeed, believing that they have the motivation and the skills to do so (Center for Community College Student Engagement, 2015).

While Tinto's model has been readily applied to studies of student persistence at four-year, residential institutions, its applicability to studies of community college student persistence has been questioned. Social integration has been presumed to be of little importance to community college students who are thought to have well established social networks comprised of family, friends, work, civic activities, and recreational pastimes that are independent from their educational activities. It is further assumed that community colleges provide "shadows" of the social systems typical of residential colleges, resulting in limited opportunities for social integration (Halpin, 1990, p. 30).

Halpin (1990) applied Tinto's model to analyze the persistence of first year students at a rural, comprehensive community college in New York. After controlling for background and environmental variables, he found that academic integration was nearly three times more likely than social integration to influence student persistence (p. 30). Conversely, Karp, Hughes, and O'Gara's (2008) exploratory study of two urban community colleges found that 70% of first year students interviewed reported a sense of belonging (integration) on campus and of those students, 90% persisted to the second year (p.7). Several important themes emerged from this study which are important to consider.

Unlike the Halpin study, which viewed academic and social integration as two distinct processes, Karp et al. (2008) discovered that academic and social integration

developed concurrently through students' participation in information networks (p. 16). Defined as "... social ties that facilitate the transfer of institutional knowledge and procedures, " students were considered part of an information network if they had a particular "go to" person on campus, used professors or classmates to get information, or sought out information through college-based social relationships or information chains (p. 8). The researchers found that students' social integration did not occur through traditional means (clubs, athletics, student government), but instead developed as a result of the academic relationships that were formed through their classroom-based information networks (p.16). For students in the study, the college success course served as the source of their information network by introducing them to various staff members, promoting group projects and discussions, and providing support and guidance through the faculty member (pp.13 – 14). The benefits of campus connections, social contacts, and personal resources that accrued as a result of these information networks engaged students in meaningful activities which increased their levels of connectedness and helped them become integrated with the institution, all factors that likely contributed to their persistence (p. 12). Findings such as these support the argument that college success courses are vitally important to community colleges because they provide a much needed network for students who would otherwise rely solely on their external social networks.

For community college students, particularly those identified as non-traditional students, relying only on external social networks is often complicated by work commitments, family responsibilities, financial limitations, time constraints, and transportation issues. Rather than providing a supportive environment for students,

external networks can often create roadblocks that impede progress toward their academic goals. Considering the large proportion of non-traditional students at two year institutions and their attraction to the convenience of online courses, discounting the importance of social integration at community colleges is shortsighted. These factors, along with findings that consistently report higher withdrawal rates in online courses, illustrate the relevance of Tinto's model to the study of online students at community colleges.

At the research site, the fall 2009 to spring 2010 semester persistence rate for students enrolled in the college success course was 79.1%, as compared to a 71.4% fall 2009 to spring 2010 persistence rate for all new students. The spring 2010 to fall 2010 persistence rate for students enrolled in the college success course was 53.2% as compared to 44.8% for all new students (Yin, "SSD 101 and Next-Semester Registration," 2011).

Over the last several years, the creation of new content areas, learning outcomes, and the standardized syllabus were undertaken at the research site in order to integrate college success course students' skill development in the areas of study habits, interpersonal communication, critical thinking, and ethical behavior, with meaningful opportunities for engagement within and beyond the classroom. As the results of the fall 2010 learning outcomes self-assessment that was administered to college success course students demonstrated, the classroom-based course has been successful in accomplishing that goal. How this translates to the online version of the college success course was explored in this study.

Distance Education and the Growth in Online Courses

Distance education has a long association with higher education. In the broadest sense, distance education is a course delivery system defined by the physical separation of instructor and students whereby the separation is bridged through the use of technology of varying form and sophistication (Schulte, 2011, p. 36).

Correspondence courses characterized the first generation of distance learning courses. They arose in response to the Industrial Revolution's need to educate a disparate and geographically scattered workforce, many of whom lived far from institutions of higher education. This course delivery mode persisted until the 1960s when new multimedia technologies like tele-courses, video tapes, and audio cassettes ushered in the second generation of distance education courses. By the start of the twenty-first century, the third generation of computer-mediated distance education took hold as the technology of the 1960s was replaced by the Internet, online discussion groups, and video conferencing (Sumner, 2000, pp. 273 – 278). Learning Management Systems (LMSs) were introduced and their continued wide-spread use has revolutionized online course delivery. These integrated computer systems have substantially impacted college teaching and learning through the incorporation of a comprehensive array of pedagogical and course administration tools (Coates, James, & Baldwin, 2005, p. 19).

Spurred by these technological advances, the first decade of this century was marked by rapid growth in online learning and although the overall growth rate for college enrollment has slowed, online enrollment is still moving upward and exceeds the overall growth rate in higher education. In fall 2002, 1.6 million students were taking at least one online course. That number increased to 6.1 million students by fall 2010,

representing a compound annual growth rate of 18.3%. By comparison, the overall higher education student body has grown at an annual rate of just over 2% for the same time year period (Allen and Seaman, 2011, p. 11). In fall 2010 more than 31% of all college students took an online course (Allen and Seaman, 2011, p. 12). Three years later, 33.5% of all college students had taken at least one online course.

In New Jersey, 29,466 students enrolled in online courses during the fall 2014 semester, taking an average of 4.7 credits online. While the average number of credits taken online by students was unchanged from the previous year, the number of students taking online courses increased by nearly 3.6%. Overall, the total number of online credits taken by New Jersey community college students during the fall 2014 semester was 139,215. This represented a 4% increase from the fall 2013 semester and accounted for 8.5% of the total number of credits generated by New Jersey's community colleges (New Jersey Council of County Colleges, Fall 2015).

In fall 2014, 1,216 students enrolled in online courses at the research site, a 37.4% increase from the fall 2013 semester. The total number of online credits taken by students increased 39.7%, from 3,600 to 5,029. On average, students took 4.1 credits online during the fall 2014 semester as compared to three online credits during the previous fall semester. (New Jersey Council of County Colleges, Fall 2015).

During the spring 2012 semester, the research site ran three sections of its online college success course for the first time. In total, 62 online sections of courses were offered during that semester. The disciplines included courses in computer science, business, English, mathematics, psychology, sociology, and political science. Four college success classes were among the 62 online courses that were offered during the

fall 2012 semester. For the spring 2013 semester, 71 online courses were offered, two of which were college success courses. One section of the online college success course was offered during the summer 2013 semester. Three online sections were offered in both the fall 2013 and spring 2014 semesters. Two online sections were offered during the summer 2014 semester and three sections were offered during the fall 2014 semester. Currently, eight other community colleges in the state also offer college success courses online and one institution offers the course in a hybrid format.

Reports indicate that online delivery of courses traditionally offered during the freshman year is more prevalent at community colleges than four-year institutions. In 2000, the inaugural National Survey of First Year Practices found that only 15% of four-year institutions offered typical first year courses online, as compared to half of the two-year colleges that were surveyed (Barefoot, 2005, p. 57). By 2002, three quarters of community colleges reported that “a few or some” of their students were enrolled in first year online courses (Barefoot, 2002). Overall, online course delivery appears to be the preferred delivery mode for distance education courses in the community college sector. A recent report from the Instructional Technology Council (as cited in Jaggars, 2011) concluded that while 75% of community colleges offer online courses, only 15% offer hybrid courses (p. 2). This is hardly surprising given that providing students with broad access to educational offerings is of paramount importance to community colleges.

As more students choose not to travel to campus and colleges continue to struggle to meet the increasing needs of diverse students using limited resources in a recovering economy, many institutions have come to view online learning as a viable alternative to on-ground courses. There are many benefits to online learning: Internet-based courses

allow institutions to serve non-traditional students, providing higher education access to students who are unable to attend traditional classes; online courses also appeal to traditional students, exposing them to an alternative course delivery system that can challenge them academically; online courses deliberately connect students to a vast collection of internet resources; the online environment can promote more communication and closeness among students and faculty; and the online learning environment may be more rigorous than the traditional classroom environment (Waschull, 2001, p. 143).

In a 2015 national survey on the state of online learning, nearly 80% of responding chief academic officers at institutions with distance education offerings described online education as critical to their long-term strategy (Allen & Seaman, 2016, p. 5). Even so, less than half of those officers (41.3%) had reported including online programs in their institution's strategic plan. This may point to a lag between intent and implementation, or cautiousness prompted by research findings which challenge the effectiveness of online courses (Allen & Seaman, 2016, p. 9).

Persistence and Achievement in Online Courses

Despite the growing popularity of online courses, the effectiveness of online learning has been called into question. Recent studies of student persistence and achievement in online courses have found that students who are more academically prepared are more likely to enroll in online courses, yet studies also confirm that these students are also more likely to withdraw from online courses than from classroom based courses. For the under-prepared student, the likelihood of withdrawal from an online course is even greater. (Jaggars, 2011; Jaggars & Xu, 2010; Xu & Jaggars, 2011).

For first time community college students, online completion rates have been found to be 8% to 13% lower than their on-ground counterparts and when the online class is a developmental math or English course, the completion gap nearly doubles to 19% and 24% respectively. New students who are enrolled in at least one online course during their first semester are also more likely to completely withdraw from college in the following semester than students who enrolled exclusively in classroom-based courses. Students who take a higher proportion of online credits are also found to be less likely to earn a degree or transfer to a four-year institution. (Jaggars & Xu, 2010; Xu & Jaggars, 2011).

While large-scale, well publicized studies have prompted concerns over the efficacy of online courses, there is evidence that online students who persist do as well academically as students in traditional courses. An examination of the findings from a Department of Education meta-analysis of online learning concluded that when compared to classroom based courses, typical online college courses have higher withdrawal rates, but equal learning outcomes among those students who complete the online courses (Jaggars & Bailey, 2010). This is also true for first semester students in both online introductory courses and online developmental courses.

Studies of community college students enrolled in online developmental and introductory courses have found completion rates to be significantly lower, however for those students who remain enrolled, they do as well, and, in some cases, better than students enrolled in the classroom-based sections of the courses. These studies have found that while instructional mode is a predictor of student attrition, it has not been a significant predictor of academic success. When controlled for demographic variables

(age, gender, ethnicity), student status (credit load), and academic preparedness (reading and writing placement test scores), students in online developmental and introductory courses have demonstrated comparable final exam and final course grades, and higher scores on state-mandated post-tests when compared to their on-ground counterparts. Research has shown that students who choose to register for online sections of these courses are generally attending part time and are older, white females, with higher reading and writing scores (Blackner, 2000; Carpenter, Brown, and Hickman, 2004; Rosenfeld, 2005; Summerlin, 2003).

While the majority of research has reported considerable disparities in attrition rates between students in online and on-ground courses, studies have been conducted which counter the prevailing research. A study of students in an online introductory psychology course found attrition rates and satisfaction levels similar to those of students in the instructor's on-ground section of the course. Test performance was also comparable among the online and on-ground students. However overall pass rates did differ, with students in the online section significantly more likely to fail the course. In a follow-up study during the subsequent semester, rather than self-selecting their section, students were placed in either an online or on-ground section of the introductory psychology course. Although they were free to change, students remained in their assigned sections. While the attrition rates and performance and satisfaction levels were consistent with those of the first study, online students in the second study were no more likely to fail when compared to the pass-fail rate of the students in the classroom section (Waschull, 2001).

Student decisions to persist or withdraw from a course are influenced by a variety of factors, many of which institutions have little knowledge of or control over. What the majority of research has shown, is that course persistence presents more of a challenge for online students, regardless of their level of academic preparedness. But for those students who do persist, the level of academic achievement is comparable to and, in some cases, higher than that of students in on-ground sections of the same course. This presents an opportunity for online courses that can be more fully realized if persistence challenges are better understood and effectively addressed.

Online Persistence and Achievement at the Research Site

At the research site, online course withdrawal rates have been found to be higher than those of students in classroom based courses, a pattern that is not uncommon as the research has shown. A study conducted at the research site in 2011 found that during the fall 2009 semester, the overall withdrawal rate for students enrolled in fully online courses was 19.1% as compared to an overall withdrawal rate of 9.9% for students exclusively in on-ground courses. Contrary those studies which reported comparable achievement by both online and on-ground students, of those students at the research site who remained enrolled in their online courses, 58.1% earned a grade of “C” or better in contrast to 68.3% of the students who remained enrolled in their on-ground courses (Yin, 2011, “Grade Distribution”).

Student Perspectives of Online Courses

With the continued growth in online learning, it is essential that community colleges understand why completion eludes so many students in online courses. Quantitative research dominates the literature, but qualitative data is also needed to

ensure that the voice of the online student is heard. Only then can a comprehensive view of online learning be developed.

Although limited in number, qualitative studies have provided student insights that cannot be captured through descriptive statistics. In a phenomenological study of the “lived experiences” of community college students enrolled in high-risk online courses—those with failure rates of 30% or higher—four themes emerged from the student interviews: isolation, academic challenge, ownership, and acquiescence (Bambara et al., 2009, p. 5).

Students attributed feelings of isolation to the absence of an actual classroom and the lack of interaction with the instructor and other students (Bambara et al., 2009, pp. 6 - 7).

The academic challenges reported by students included confusion over course structure and organization, underestimating the academic rigor of course, and technical problems with the course management system (Bambara et al., 2009, pp. 8 – 9).

Despite the negative experience of some students, others reported a positive sense of ownership of their online course, cultivated through motivation, commitment, independence, self-direction, and resourcefulness. Students who successfully completed the course were personally invested, devoting considerable time, effort, focus, and organizational strategies to the course. By contrast, acquiescence best described the ways in which some students came to terms with their online experience. Poor performance led to a self-acknowledged loss of motivation as some unsuccessful students silently submitted to the course even as their commitment and effort faltered. For others, course completion involved compromise and the acceptance of a disappointing experience in

order to meet degree requirements. Students who did not complete the course expressed feelings of loss and shame at their inability to realize their educational goals (Bambara et al., 2009, pp. 9 – 13).

Bambara et al., (2009) identified students as either survivors or surrenderees. Survivors were described as empowered or compromised, while surrenderees were characterized as reluctant or misplaced. Empowered students took ownership of the course even when faced with isolation and academic challenges. While compromised students rose to the academic challenge of the course, they did not respond positively to their feelings of isolation and acquiesced either through silent submission or compromise. Reluctant surrenderees responded positively to their feelings of isolation but were unable to overcome the academic challenges they faced and did not complete the course. Misplaced students were unable to overcome the isolation and the academic challenges and did not belong in the online course from the start (p. 13).

“Delicate engagement” was the term used to describe the interrelationship among the four themes of isolation, academic challenge, ownership, and acquiescence (p. 13). It is an element of student engagement that highlights the “vulnerable threads of academic and social connection,” the opposing forces of strength and resilience, as exhibited by the survivors, versus the fragility and vulnerability of the surrenderees (p. 14). It is this dichotomy that must be acknowledged and addressed when considering issues of student engagement in online courses.

Student Engagement

First year student success, in the narrowest sense, refers to students’ successful completion of first year courses and their continued enrollment in the second year of

college (Upcraft, Gardner, and Barefoot, 2005, p. 2). Over the last 25 years, the proliferation of research on first year students has resulted in a more comprehensive definition of first year student success, one that takes into consideration concepts such as the development of academic and intellectual competence, the establishment and maintenance of interpersonal relationships, identity development, career choice, health and well-being, faith and spirituality, multicultural awareness, and civic responsibility (pp. 9 – 10). Each of these concepts presents opportunities for colleges to engage their students in endeavors that connect them to their educational experience and the social milieu of the campus. For first year students, this is often accomplished through a college success course. However, doing so requires a partnership between the students and the institution. Students must invest time and energy in the activities related to the course, while the college must allocate the resources needed to support the activities that promote student engagement.

The roots of student engagement can be traced to Astin's (1999) Student Involvement Theory which defines involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). Astin's theory is based on five principles: involvement entails physical and psychological energy, involvement occurs along a continuum, involvement contains quantitative and qualitative elements, the degree of student learning and development is relative to the quantity and quality of the student involvement, and the effectiveness of any educational policy or practice is directly related to the ability of the practice or policy to increase student involvement (p. 519). These principles are considered throughout the study.

Examining student involvement along the continuum of course delivery is integral to the study. Students' level of involvement, in terms of the energy they devote to the course, was measured by reviewing attendance records and login activity, as well as their interactions with fellow classmates, the instructor, college personnel, and the course material. The nature of student involvement, in terms of the quality and type of interactions, was ascertained through student interviews and a survey that measured students' sense of community in the course. In this way, both the qualitative and quantitative aspects of involvement were addressed to determine the effectiveness of course delivery on student involvement.

Astin counters longstanding pedagogical theories that embrace the "tabula rasa" view of students, by focusing on what students are actually doing in terms of their motivation and the amount of time and energy they are devoting to the learning process (p. 522). Although the theory has been most closely associated with students at residential colleges and universities, its recognition of student time as the most important institutional resource is equally applicable to community college students. Recognizing student time as a finite resource that is in continuous competition with forces external to the campus, every institutional policy and practice, whether it is academic or non-academic, impacts this resource and influences how students spend their time, as well as the amount of effort they apply to their academic pursuits (p. 523).

The growth in online education has occurred, to some extent, in response to changing demands on students' time. Allen and Seaman (2016) suggest that for today's student, the idea of a "distance" course has changed from being "geographically separated" to one of "time shifting," as more traditional students register for both online

and on-ground courses in order to build flexibility into their schedules (p. 11). As more students turn to online courses as a way to balance family, work, and school commitments, the concept of student involvement in online courses must be more fully explored. Given the positive effects of student involvement on success and persistence in on-ground courses and the troublesome persistence rates in online courses, a clearer understanding of how students engage in online courses is warranted. A comprehensive concept of student engagement, one that considers both the level and nature of student involvement, will help to ensure that opportunities for engagement in online courses are comparable to those for students in on-ground courses.

Engagement in Online Courses

In the last decade, the topic of student engagement has garnered national attention through the work of the Center for Community College Student Engagement. Housed at the University of Texas at Austin, the Center administers the Community College Survey of Student Engagement (CCSSE) and the Survey of Entering Student Engagement (SENSE). These widely-used instruments measure classroom-based students' engagement in educational practices and activities that are known to have a positive effect on success and retention. Responding to the growing number of online enrollments, the Center piloted the Online Survey of Student Engagement during the fall 2009 semester. The survey was administered to over 2,000 community college students enrolled in online courses in order to identify factors that affect student engagement in online courses.

The survey results found that students enrolled exclusively in online courses were, overall, less engaged than students in hybrid courses. The lower level of engagement was

attributed not only to students' physical separation from campus, but to institutional practices as well. Although online students reported higher levels of student involvement in terms of time spent preparing for class, the nature of their involvement, in terms of participation in active and collaborative pedagogies and interaction with instructors, was limited. This left them feeling less supported academically, socially, and financially by their institutions. While 93% of online students visited the campus at least once for key services, only 10% of the students met with an instructor and just 5% met with other students. Students in online courses were also less likely than their hybrid counterparts to use electronic means to connect with other students (Fisher, 2010, p. 7). Among online students, those enrolled part-time consistently reported lower levels of engagement than their full time counterparts. The study also found that students with prior experience in online courses reported higher levels of engagement than those who were new to the online environment. In this particular study, the demographic factors of age and gender were deemed insignificant, while race and ethnicity data were found to be inconclusive (Fisher, 2010, p. 8).

In addition to large-scale student surveys, studies have been conducted using LMS data to measure student engagement in online courses. These quantitative studies have measured engagement by examining online behavior patterns and user activity such as tool utilization, number of mouse clicks, average pages per visit, average time on site, and hit counts (Beer, Clark, & Jones, 2010, p. 81; Clark, Beer, & Jones, 2010, p. 488; Dawson, McWilliam & Tan, 2008, p. 223). Researchers have found that the most utilized tools are those that support discussion boards, presentation and organization of course content, and assessments, many of which require little time commitment

(MacFadyen & Dawson, 2012, p. 158). Nonetheless, they are tied to what students deem as the most important outcome—their course grade (Murray, Perez, Geist, & Hedrick, 2012, p. 137). In spite of these studies, researchers worry that not enough attention has been directed toward engagement and how LMSs might create new patterns of engagement and impact the way in which students learn (Coates, 2005, p. 68; Coates et al., 2005, p. 28). While academic analytics are part of most LMS packages, researchers are concerned that the data is being used in limited ways, to provide basic usage information when more robust analyses are possible (Dawson, Heathcote, & Poole, 2010, p. 121).

In addition to studies that employ national surveys and large LMS data sets, in-depth studies of online student engagement have been conducted with smaller populations. Richardson and Newby (2006) investigated graduate students' cognitive engagement in online courses as measured by the learning strategies and motivations they employed. Although gender differences were determined to be insignificant, age did factor into differences among students in online courses. Younger students were found to be less engaged, relying on “surface” strategies and motivations in order to meet the minimal requirements of the online course (p. 33). The researchers did, however, observe a positive shift in learning strategies and motivations among students who continued with online courses. As they gained experience in online courses, students began to utilize “deep” learning strategies, moving beyond rote learning to display an innate interest in the course. Additionally, they became more self-directed, exhibiting “achieving” motivations such as improved time management skills and making full use of course resources, ultimately taking responsibility for their own online learning (p.32).

As these examples demonstrate, large scale surveys, LMS data analysis, and smaller studies are all contributing to the growing discourse on online learning and adding to the body of literature on student engagement. Student engagement is a dynamic concept, one that is evolving amid a higher education environment that is being irrevocably changed by technology. Engagement may hold the key to improved persistence and success for online students. Given the changing educational landscape, the breadth and depth of student engagement must be examined more fully, reaching beyond the boundaries of the traditional classroom to incorporate the needs and challenges of students in online courses.

Chapter 3

Methodology

Introduction

This study examined the influence of student engagement on the outcomes of students enrolled in online and on-ground sections of a college success course at a suburban community college. College success courses play a key role in promoting the success of entering students. Over the last 40 years they have become a ubiquitous feature of most students' first year experience, particularly for students enrolled in developmental courses (Boudreau & Kromrey, 1994; Thelin, 2004). Research on the effectiveness of college success courses has primarily focused on four-year institutions, with the most commonly assessed outcomes being student retention, persistence, grade point average, and credit completion (Cuseo, n.d.; Mills, 2010; Pascarella & Terenzini, 2005; Swing, 2002). To date, research on college success courses at community colleges, although positive, has been limited (Zeidenberg et al., 2007). Additionally, at both four-year and two-year institutions, there have been few studies of college success courses involving longitudinal data, cross institutional analysis, learning outcomes assessment, or qualitative student data (Boudreau & Kromrey, 1994; Mills, 2010; O'Gara et al., 2009; Swing, "First-Year Initiative (FYI) Overview," 2002).

Although variations of the college success course exist among institutions, they all share a common goal of helping students "identify campus resources, establish relationships with other students and with faculty members, and assess and improve their academic and life management skills" (Stovall, 2000 as cited in Hope, 2010, p. 3). This goal has remained steady amid a rapidly changing higher education environment in which

the evolving role of technology has prompted much discussion and debate, particularly with regard to distance education and the internet. The advent of online course delivery has provided community colleges with the opportunity to be accessible and responsive to the needs of an increasingly diverse student population. Over the last ten years, the number of online courses and students enrolled in these courses has risen steadily. However, juxtaposed with the increasing popularity of online education is a preponderance of research questioning its efficacy. Recent studies have found higher withdrawal rates, lower persistence rates, weaker academic performance, and lower levels of engagement among students in online courses (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). In most cases, if not all, research has treated online student outcomes and engagement as distinct factors, studying them in isolation. Little attention has been paid to the possible relationship of engagement and outcomes. Most studies of online learning have used quantitative data analysis to measure student outcomes. Studies employing a qualitative approach have been in the minority. Given the ongoing popularity of online courses, it is not enough to quantify student outcomes. Qualitative data is needed to provide a more comprehensive understanding of online student outcomes.

Despite discouraging findings and the need for more research, the breadth of online offerings continues to grow, with courses once considered less suited for internet delivery gradually moving to online formats. This is occurring with college success courses which have traditionally been offered in classroom-based, seminar formats. At the research site, online sections of its college success course were first offered during the

spring 2012 semester and have been offered each semester since. To date, research on the efficacy of the institution's online sections has not been conducted.

College success courses are designed to improve students' academic performance, engage students in the campus community, and promote persistence. However in light of the prevailing research, offering an online format appears, at first glance, antithetical to the underlying philosophy of the course, potentially placing academically vulnerable first semester students at risk.

With its community college focus, this study adds to the research on college success courses at two-year institutions and online student outcomes. A mixed methods approach was used to examine student outcomes and how those outcomes were influenced by engagement, as measured by the nature and level of student involvement in both the online and on-ground sections of the college success course.

The following sections of this chapter detail the study's methodology. The presentation of the research questions is followed by a discussion of the research design and data collection procedures. Discussions of the assessment instruments, research setting, validity and credibility, researcher bias, population, limitations, and study sample are also provided.

Research Questions

The research questions that guided this study were crafted to address gaps in the literature on college success courses at community colleges and to add to the research on student outcomes and engagement in online courses. The questions stemmed from my decade of classroom experience teaching college success courses at a community college, an instructional perspective that advocates student engagement as the mechanism for

connecting entering students to the people and resources that lead to persistence and success, and an interest in exploring how technology can be used to enrich and support the first year experience of academically vulnerable students.

Mashaw (2012) described course effectiveness as an “elusive concept” that can be difficult to measure (p. 189). Common factors that have been used to quantify the effectiveness of on-ground courses have included instructor enthusiasm, breadth of subject matter, class size, class type, student abilities, and grading factors (p. 189). However, determining the effectiveness of online courses entails looking beyond these measures. Social interaction, communication, engagement, and participation have been cited as factors that can have a positive impact on the effectiveness of online courses (Mashaw, 2012, p. 196). While these factors support the underlying philosophy of college success courses and align with what I believe to be essential elements of the course, research on the extent to which they impact online course effectiveness has been limited.

By applying the lens of social constructivism to this study, emphasis was placed on understanding the role engagement played in shaping students’ personal meaning and understanding of their college success course experience. It also underscored the potential influence of engagement on student outcomes. Within the context of the social constructivist worldview, the seminal works of Alexander Astin and Vincent Tinto, which explore the physical, intellectual, and social aspects of student engagement, provided the foundation on which I formulated the following research questions:

1. What are the outcomes among students in the online and on-ground sections of the college success course in terms of: final exam grades, overall course grades,

self-assessment of course learning outcomes, persistence rates, withdrawal rates, and term GPA?

2. What is the level of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the level of involvement influence student outcomes?
 - b. How does this differ by delivery method?
3. What is the nature of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the nature of involvement influence student outcomes?
 - b. How does this differ by delivery method?

Research Design

This study employed a mixed methods design to answer the research questions. Mixed methods research has been described as the “third methodological movement,” a more recent approach to research that has emerged in the last 20 years, but one with roots in the work of nineteenth century European social researchers (Tashakkori & Teddlie, 2010, p. 272). In contrast to a strictly quantitative or qualitative research design, the advantage of a mixed methods design resides in its potential to produce a more comprehensive understanding of the problem being studied. As a result, it also offers the possibility of providing a variety of options for implementing positive change (p. 273).

Mixed methods research is an integrated research approach that utilizes both qualitative and quantitative methods within a study. Creswell and Plano Clark (2011) offer a comprehensive definition of mixed methods research that highlights six core characteristics: (1) Collecting and analyzing qualitative and quantitative data; (2)

Simultaneously synthesizing the data either sequentially or embedded within one or the other; (3) Prioritizing one or both types of data; (4) Using the procedure in either a single study or various phases of a study; (5) Framing the procedures within a worldview and theoretical lens; (6) Combining the procedures into a research design that directs the plan for conducting the study (p. 5).

The philosophical foundation of mixed methods research is based on a pragmatic worldview, where emphasis is placed on examining a problem in social science research and using a variety of approaches to acquire knowledge about the problem (Creswell, 2009, p. 10). Even so, it is not uncommon or unwarranted for researchers to employ more than one worldview in a mixed methods study should the design of the study call for it (Creswell & Plano Clark, 2011, p. 45). In this study, the social constructivist worldview served as the foundation for the study's theoretical framework and influenced the research questions which contained quantitative and qualitative elements which supported a mixed-methods approach.

Triangulation is frequently cited as the rationale for conducting a mixed method study, but there are other reasons for selecting a mixed methods approach. Greene, Caracelli, and Graham (1989) point to the complementarity of mixed methods research as a way to more fully understand a research problem, particularly when qualitative and quantitative data are used to measure overlapping, but different aspects of the problem (p. 258). Another advantage to mixed methods research lies in its potential to address complex questions by acknowledging the dynamic inter-connections that traditional research methods have not adequately addressed (Hesse-Biber, 2010, p. 2)

Studies of college success courses at community colleges have been limited, particularly qualitative studies that explore students' perspectives of the course (Boudreau & Kromrey, 1994; Mills, 2010; O'Gara et al., 2009; Swing, "First-Year Initiative (FYI) Overview," 2002). Research of online course persistence rates has focused on quantitative data, with the voice of the student absent from most of the literature (Jaggars & Xu, 2010; Rosenfeld, 2005; Summerlin, 2003; Waschull, 2001). The institution's decision to offer its college success course in an online format provided an opportunity to concurrently address these areas of research which have, in the past, been studied separately.

The incongruity of placing academically vulnerable first year students in the high risk environment of an online course presented a new research problem that was imbued with complexities and nuances that were suited to a multi-faceted research approach. A mixed methods design was selected for this reason. It provided a mechanism for synthesizing these previously disparate areas, integrating the qualitative data with the quantitative data in order to provide a more comprehensive understanding of student outcomes and engagement in the online college success course.

To that end, a convergent parallel mixed methods design was used. The qualitative and quantitative strands were given equal priority. Data were collected concurrently during the fall 2014 semester. The data were analyzed separately and the findings are presented in Chapter 4. Conclusions and recommendations based on the synthesis of the quantitative and qualitative strands in Chapter 4 are discussed in Chapter 5.

Course delivery method served as the study's independent variable. Four sections of the course (two online sections and two classroom based sections) were used in the study. Student enrollment in the sections took place during new student orientation and registration sessions. At these sessions, students who were required to take the college success course self-selected the section of their choice. While academic advisors routinely provide students with suggestions and information regarding course delivery options, special recruitment procedures were not used to place students in any of the sections included in this study.

The study's dependent variables included student outcomes, as measured by final exam grades, final course grades, term grade point averages, persistence rates, withdrawal rates, and the student self-assessment questionnaire. Intervening variables included students' perspectives on the nature and level of their engagement with the college success course which were gleaned from one-on-one interviews, Classroom Community Scale (CCS) responses, classroom attendance records, and online student tracking reports.

Assessment Instruments

Indirect data on student learning outcomes were gathered through a course-specific student self-assessment questionnaire which was developed by the History and Social Science Department and has been in use for the past eight semesters (Appendix A). Each of the five self-assessment survey items addressed one of the five learning outcomes for the course. Students rated their mastery of each learning outcome using a five-point Likert scale which ranged from strongly disagree, to strongly agree.

A department-developed standardized final exam, which was used by most college success course instructors, was administered to students in all four sections of the course (Appendix B). The exam was comprised of 50 multiple choice questions which were mapped to the course content and learning outcomes. Direct learning outcomes data was gathered through an analysis of the final exam items and the final exam grade.

The Classroom Community Scale (CCS) was used to collect indirect data on students' perceptions of engagement and attainment of learning goals (Appendix C). The CCS was developed by Alfred Rovai at Regent University's School of Education, to measure students' sense of community in a learning environment. Rovai created the instrument in response to ongoing concerns over high dropout rates among students in distance education programs. Influenced by Tinto's philosophy on social and academic integration and the development of relationships within a learning community, Rovai designed the CCS to "explore the factors that influence students' community experiences" in online learning environments (Rovai, "Development of an Instrument to Measure Classroom Community," 2002, p. 198). The 20 item instrument produces an overall classroom community scale and two 10 item subscales. The instrument is reverse-scored, where appropriate, to ensure that the least favorable choice is always assigned a value of zero and the most favorable choice is always assigned a value of four. The CCS uses two 5-point Likert scales to tally the overall scale. The first Likert scale ranges from 0 (strongly disagree) to 4 (strongly agree) and applies to items 1, 2, 3, 6, 7, 11, 13, 15, 16, and 19. The second Likert scale ranges from 0 (strongly agree) to 4 (strongly disagree) and applies to items 4, 5, 8, 9, 10, 12, 14, 17, 18, and 20. The overall CCS scale can range from 0 to 80.

The connectedness subscale pertains to students' feelings of cohesion, spirit, trust, and interdependence. It is calculated by adding the odd numbered items. The learning subscale pertains to students' perceptions about how interaction is used within the class to construct understanding and the extent to which their learning goals are being met. It is calculated by adding the even numbered items. The range for each subscale is 0 to 40. The overall classroom community scale was used as an indirect measure of student engagement. The learning subscale was used as an indirect measure of student learning outcomes and the connectedness subscale was used as an indirect measure of the nature of student involvement.

Instruments, such as the CCS, which employ an ordinal level of measurement (i.e., Likert scales) are typically limited in the breadth of statistical analysis that can be applied to their results. As is the case with the CCS, the numbers assigned to the scale lack a true numerical quality and the distances between each category are undefined. From a mathematical standpoint, counting the number of cases in each category, comparing category sizes, and judgments of "greater than and less than" are the extent of operations that can be applied to an ordinal scale. In the strictest sense then, this would limit the measures of central tendency that can be used to analyze CCS data to the mode and the median. The calculation of the mean, which is the most commonly used measure of central tendency, is most appropriate when working with interval-ratio data (i.e., test scores) which have a true zero point and to which all mathematical operations can be applied. Even so, social science researchers do calculate the mean for variables measured at the ordinal level because it is more flexible than the mode and the median, and it is necessary when conducting robust statistical analyses (Healey, 2002). Studies

involving the CCS have treated the scores as interval-ratio data when conducting statistical analysis (Rovai, "In Search of Higher Persistence Rates in Distance Education Online Programs," 2002; Rovai & Jordan, 2004; Rovai & Wighting, 2005). In keeping with this established practice, CCS scores were treated similarly in this study.

The CCS was designed for use in a variety of classroom settings and can be administered at both the undergraduate and graduate level. After reviewing several survey instruments, the CCS was selected because of its versatility of use with various delivery methods and student populations (Rovai, "Development of an Instrument to Measure Classroom Community," 2002, p. 208). Nationally recognized instruments like the CCS notwithstanding, it is also one of the few student engagement surveys designed for small scale use. The CCS may be used, without written permission, providing proper credit is given by citing the journal article in which it is discussed and presented.

Academic data was retrieved from the institution's student information system. Final course grades and term grade point averages were used to directly measure student outcomes. Withdrawal activity for the fall 2014 semester and registration records for the winter and spring 2015 semesters were used to measure student persistence.

Student attendance records, as provided by the instructors, were one of the measures used to quantify on-ground students' level of involvement in terms of the amount of time they invested in the course. In lieu of attendance records, the student tracking feature of the learning management system (LMS) was used to measure online students' level of involvement in the college success course. The LMS is comprised of 10 tools. The student tracking feature records the number of clicks, total time, and number of sessions, per tool, for each student. The online instructors used nine of the 10

tools. The “Announcements” tool enabled instructors to create and post class announcements to be viewed by all members of the class. The “Bookmarks” tool allowed instructors to save and share web sites with students. Through the “Message Board,” instructors posted discussion topics and facilitated asynchronous conversations among class members. Students completed quizzes and tests using the “My Assessments” tool. The “My Assignments” tool enabled students to submit assignments online. Instructors organized course materials by weeks or topics using the “My Course Content” tool, providing students with a portal to course resources maintained on other pages. Students used the “My Grades” tool to view their grades for assignments, tests, and quizzes. The “My Journal” tool was used by students for private, asynchronous communication with their instructor. The “Shared Files” tool allowed instructors to upload class materials for access by the students.

Qualitative data on the nature and level of student involvement was gathered through individual interviews with students in the online and on-ground sections of the course. I developed a protocol which I used to guide the interviews (Appendix D). To capture students’ perceptions of the nature of their involvement in the college success course, I created questions that asked them to describe how they interacted with fellow students, their instructor, and other college personnel as it related to the course. To capture students’ perceptions of the level of their involvement (in terms of time invested in the course), on-ground students were asked to discuss their classroom attendance and participation, while online students were asked to discuss their course login activity and the quality/productivity of their time spent online. Students’ perceptions of the level of their involvement (in terms of energy invested in the course), were culled from questions

that explored how students spent their course-related time, what prompted course-related interactions, and who initiated the interactions.

Validity

The concept of validity is largely absent from the literature on mixed methods research (Dellinger & Leech, 2007, p. 314). This presents a challenge for mixed methods researchers who must nonetheless determine how best to approach the issues of validity that will impact both the quantitative and qualitative aspects of their study. Maxwell's (1996) observation that the validity of qualitative research must be evaluated "in relationship to the purpose and circumstances of the research" is equally applicable to mixed methods research (p. 86). With this in mind, issues of validity concerning data collection, analysis, and interpretation must be considered (Creswell & Plano Clark, 2011, p. 239).

Data collection. Several instruments were used to gather direct and indirect data for both strands of the study. They included the student self-assessment questionnaire, standardized final exam, CCS, and interview protocol. The validity of these instruments is discussed below.

The student self-assessment questionnaire was developed for the college success course in 2010 by the curriculum coordinator in the History and Social Science Department. Beginning in fall 2010, it has been administered routinely to students enrolled in the college success course as part of the department's ongoing assessment activities.

The standardized final exam for the college success course was also created by the curriculum coordinator following the adoption of the current text book in 2012. The

test questions were derived from the text's test bank. While the publisher provides no reliability/validity information for the test bank items, the 50 multiple choice questions were carefully chosen by the coordinator to align with the learning outcomes and course content. Instructors are not required to use the exam, however most do. In each of the class sections participating in this study, the instructor administered the standardized final exam.

The absence of validity tests notwithstanding, my decision to use the department's existing student self-assessment questionnaire and standardized final exam was made in order to maintain continuity among all sections of the college success course, regardless of their participation or non-participation in the study. Since an analysis of course learning outcomes for the college success course had not been undertaken prior to this study, I decided to use the instruments currently in place as the basis for measuring students' attainment of course learning outcomes. The self-assessment questionnaire and the standardized final exam serve as starting points from which future research topics may emerge.

The CCS was field tested at a single university using 375 graduate students in 28 online courses. During its development, faculty raters evaluated the instrument's original 40 items for content validity, independently rating the relevance of each item using a four-point Likert scale. A review of the mean score for each item resulted in the elimination of items that were not rated as totally relevant by the panel. Factor analysis resulted in the deletion of additional items, reducing the final instrument to 20 items. Quantitative research methods were used to establish the extent of the validity and reliability of the instrument. Factor analysis was used to determine the dimensionality of

the classroom community construct. Frequency counts confirmed that all of the items produced a full range of responses across the Likert scale. An ANOVA verified the existence of significant variation among the 20 items (Rovai, “Development of an Instrument to Measure Classroom Community,” 2002, pp. 201 - 203).

Student interviews were guided by a protocol which I developed. The protocol was reviewed by colleagues for consistency, clarity, and the absence of leading, close-ended, or short-answer questions. It was then field tested during the first phase of a pilot study which I initiated during the summer 2014 semester. The protocol was revised during the field test. Using the revised protocol, I conducted audiotaped telephone interviews with the study participants toward the end of the fall 2014 semester. I personally transcribed the interviews, verbatim, to ensure the accuracy and completeness of the students’ responses.

Data analysis. During the last two weeks of the semester, I simultaneously administered the student self-assessment questionnaire and CCS while recruiting and interviewing students. Students were actively participating during those final weeks of the course, seeking extra credit opportunities by completing the survey instruments and/or participating in interviews. The interview protocol was used to gather direct, qualitative data on the nature and level of student involvement.

Since the analysis of each strand did not begin until the semester was over and the quantitative data were finalized, the interviews were not colored by the quantitative findings. As will be seen in the findings and conclusions that are presented in the following chapters, this was an important aspect of the parallel design. It strengthened the data analysis by highlighting inconsistencies between the two data strands that might

not have been discovered had a purely quantitative, qualitative, or sequential mixed methods design been used. This resulted in a more comprehensive understanding of the research questions.

Data interpretation. Of equal importance to mixed methods research is the integration of the qualitative and quantitative data strands. Teddlie and Tashakkori's (2009) "integrative framework for inference quality" includes criteria for evaluating the interpretive rigor of a mixed methods study (p.300). These criteria are: interpretive and theoretical consistency, interpretive agreement and distinctiveness, and integrative efficacy and correspondence (pp. 303 -308).

To uphold interpretive consistency, I made certain that my conclusions and recommendations were directly related to their respective findings, were comparable in terms of breadth and depth, and referenced any limitations, if applicable. Theoretical consistency was addressed in my conclusions by including references to current research that were congruent to the findings of my study.

To some degree, interpretive agreement was validated during the dissertation committee's review of my study. Additionally, I took care to form conclusions that stayed true to the participants' perceptions. To address interpretive distinctiveness, I made every effort to draw conclusions that stood apart from and were more invulnerable to other credible conclusions that could have been drawn.

Integrative efficacy was evident in that I compared, contrasted, and synthesized both strands to arrive at conclusions that, in some cases, arose from inconsistencies among the findings. To that end, integrative correspondence was the key strength of my

study because it required a deeper examination of the findings, resulting in the extension of an existing theory and a more complete understanding of the research problem.

Pilot Study

I conducted a two-phase pilot study at the research site beginning with the summer 2014 semester. Its purpose was to test the questionnaires, interview protocol, and data collection procedures. Two seven-week sections of the college success course (one online and one on-ground) were offered during the first half of the summer semester. The sections began the week of May 19 and ended the week of June 30. There were 13 and 17 students enrolled in the online and on-ground sections respectively, providing a potential pool of 30 participants.

At the start of the fifth week of the semester, June 16, I visited the on-ground class to describe the pilot study and solicit students' participation. I administered the self-assessment questionnaire and the CCS to students who agreed to participate and had completed the informed consent form. A sign-up sheet was circulated to gather the contact information of students who wished to take part in the telephone interview.

During the same week, I sent an email to the online students describing the pilot study and inviting them to participate. Interested students accessed an online version of the student self-assessment questionnaire and the CCS through the dashboard feature of the course's LMS. The informed consent form was embedded at the beginning of the online version of the questionnaires. A few days later, I sent a follow-up email inviting the online students to take part in a telephone interview, directing them to respond to my email with their contact information.

Ten online and 12 on-ground students completed the questionnaires. No difficulties were encountered with the in-class administration of the informed consent forms or the questionnaires. The entire process was conducted at the beginning of the class and was completed within 20 minutes. The administration of the online version was also problem-free. However during my review of the online questionnaire results, I realized that I was unable to match the participants to their individual responses. I had assumed that when the online students accessed the LMS to complete the questionnaires, their identification numbers would automatically be linked to their responses. Instead, the online survey feature of the LMS verified the date and time that a student accessed the questionnaires, but it did not align the student's name or identification number to their responses. A comparison of online students' survey responses to their respective final exam grades, course grades, and interview responses would not have been possible unless this connection was established. To remedy this shortcoming, I revised the online questionnaires to include a student identification number field. The modified questionnaires were piloted in a seven-week online section of the college success course which was offered during the first half of the fall 2014 semester. The data collection procedure that was employed during the first phase of the pilot study was used to enlist fall students' participation. From a potential pool of 18 students, 13 completed the updated questionnaires, enabling me to verify that the newly added student identification number field linked the students to their responses and, by extension, would allow me to align those responses to their final exam grades, course grades and interview responses.

In keeping with the stated criteria in the informed consent, students were not required to answer all of the questions, making it possible for students to skip the newly

added student identification number field. During the fall phase of the pilot study, only one of the participants did not enter their student identification number. With only one omission, through process of elimination, I was able to identify the student. This would not have been possible had more than one student omitted their identification number. While unavoidable, this was helpful information to know before beginning the actual study.

During the summer, nine of the 30 students agreed to be interviewed. I conducted interviews with five online students and four on-ground students. I began interviewing students toward the end of the fifth week of the seven-week semester, completing all of the interviews by the end of the seventh week (July 3). Each interview was approximately 20 minutes in length.

Early on in the interview and transcription process, it became apparent to me that I tended to lead interviewees by digressing from the established protocol. As the interviews continued, I made a conscious effort to curtail that tendency by adhering to the protocol and giving students time to ponder each question. I interceded and provided an expanded version of the question only when it was evident that further clarification was needed.

During the interviews, an additional question emerged which helped to encapsulate the protocol questions which were focused on the theme of faculty, staff, and student interactions. As the interviews progressed, I refined the question until I had crafted what became the capstone question I used to close each interview: “As a result of your enrollment in the college success class, who have you made connections with that will continue once the course has ended?” This question provided support and brought

the interviews full circle, eliciting student insights that might not otherwise have been articulated.

At the conclusion of the summer phase of the pilot study, I forwarded the names of the students who completed the questionnaires and/or participated in an interview to their respective instructors and they were awarded extra credit points for the course. The same was done for students who completed the questionnaires during the fall phase of the pilot study.

The pilot study was important for several reasons:

1. It confirmed that the in-class completion of the informed consent forms, administration of the questionnaires, and collection of interview contact information could be accomplished efficiently, with minimal disruption to the class schedule.
2. It allowed me to develop an online data collection process that complemented the instructor's existing course format while effectively soliciting students' participation.
3. It provided an opportunity to test the technical aspects of administering the informed consent and questionnaires to the online students.
4. It exposed a flaw in the online questionnaire, providing time for corrective action and a second administration in advance of the actual study.
5. It offered an opportunity to practice my interviewing and transcription skills, allowing me the chance to improve them before beginning the actual study.
6. It established that the logistics of scheduling and conducting numerous interviews in the latter part of the semester could be successfully completed before the end of the term.

7. It resulted in the creation of an additional, culminating interview question that brought closure to the interview protocol.

Credibility and Bias

Given that the qualitative aspect of this study involved interviewing students and recording their responses, it is appropriate to address researcher credibility. Miles and Huberman (1994) describe a capable “researcher-as-instrument” as someone who possesses familiarity with the phenomenon and setting, strong conceptual interests, a multidisciplinary approach, and good “investigative” skills (p. 38). Each of these traits is discussed in turn.

In my role as researcher, my familiarity with the phenomenon has been established through my extensive association with the institution’s college success course, both inside and outside of the classroom. With nearly ten years of teaching experience, I have developed a solid understanding of course content, goals, and objectives. Over the years, I have been an active proponent of the course, attending best practices workshops and participating in orientation sessions for new instructors. While it can be argued that my longstanding history with the course may impede my receptiveness to new course practices, it is important to note that my association with the course has provided me with opportunities to participate in activities that have resulted in significant course enhancements. In a previously held position, I developed the in-class advising module which became an integral component of the course. Each semester I managed and presented in-class advising sessions for hundreds of students in the college success course. I also participated in meetings to discuss how best to adapt the in-class modules for online delivery. As part of a graduate course requirement, I conducted a

small-scale, qualitative study of the college success course which involved classroom observations and instructor interviews. Rather than becoming entrenched in prior practice, I have worked to stay current, supporting course innovations that address the changing needs of students and the institution.

My conceptual interest in this research topic piqued after learning that the college success course would be offered online, particularly in light of current research reporting discouraging persistence rates in online courses. Given my experience with the course and a strong belief in the value of student engagement, I became interested in exploring the efficacy of the online college success course. With significant time spent in college success classes as both an instructor and a presenter, I have acquired a comprehensive understanding of the course. Assignments, in-class modules, and the seminar format are designed to bolster academic skills, foster engagement, and promote persistence. Exploring how this transitions to an online environment is the foundation for my conceptual interest in this research topic.

My student affairs background has afforded me the opportunity to work directly with students, offering assistance with academic and personal matters. I have provided career and academic advisement and, when necessary, interceded to resolve student discipline issues. In my role as a student advocate and problem-solver, I have had to listen carefully, remain impartial, and formulate insightful questions. As a result, I have developed strong investigative capabilities that support my skills as a researcher and interviewer.

My history with the college success course also warrants a discussion of bias. From the outset, I have questioned the efficacy of the online college success course. My

uncertainty arose out of concern for students. Transitioning a course for academically vulnerable students to a high risk online environment, in my opinion, counters the philosophy of the course. However, considerable time spent researching the topic has shifted my outlook and mitigated some of my initial skepticism. I have come to recognize that the nature and level of engagement in online and on-ground courses will be different, but it is engagement nonetheless. Even so, I am still not fully convinced that the benefits of the college success course can be realized in an online environment. I have acknowledged my preconceptions from the start and have worked to ensure that issues of bias remain at the forefront of my research activities. This has been accomplished in a number of ways. Researcher bias, while of lesser concern for the quantitative aspect of the study, was addressed through the use of the standardized final exam which was developed within the department and has been in use since 2012. Instructors scored their respective students' final exams and provided me with the exam grades and a summary of the exam questions each participant answered incorrectly. Course grades and term and cumulative grade point averages were obtained directly from the institution's student information system. Withdrawal and persistence rates were calculated based on student registration and withdrawal data which are maintained in the student information system. For the qualitative portion of the study, I used survey instruments that were developed by others. While the student self-assessment questionnaire has not undergone validity testing, it has been used consistently for several semesters as part of the research site's assessment activities. The CCS has been tested for content validity. To guide the student interviews, I used an interview protocol which I created. It was reviewed by colleagues for consistency, purpose, and bias and field tested

with students. Recognizing that the risk for researcher bias would be greatest during the interviews, to lessen the effects of bias, I adhered to the protocol during the interviews. I conducted and transcribed all of the interviews and triangulated the responses using the questionnaire results, final exam outcomes, login activity/attendance records, and the quantitative student outcomes data.

Description of the Setting

The research site is a public, community college set in a suburban location in the northeastern United States. Fall 2014 student enrollment totaled 12,064 students, comprised of 51.1% full time students and 48.9% part time students. Female students made up 53.2% of the student body, with male students accounting for the remaining 46.7% of the population. The average age of all students was 23.2. When disaggregated by enrollment status, the average age of full time students was 20.9, while the average age of part time students was 25.5. The ethnic composition of the student body was 31.9% White (non-Hispanic), 28.7% Hispanic, 12.5% Asian, 11.3% Black, 0.3% American Indian, 0.8% Native Hawaiian, 2% Alien, 3% two or more, and 9% unknown. Minority students (American Indian, Asian, Black, Native Hawaiian, Hispanic and two or more) comprised 56.3% of the student population (Middlesex County College, 2014).

The research site's three credit college success course is required of all first semester students who have tested into two or more developmental areas. The course evolved from a credit-equivalent course, "Becoming a Master Student," whose title and content were derived from Dave Ellis' similarly titled seminal text. Developed and taught by college counselors in the 1980s, it was originally designed to support students participating in the institution's program for students with learning disabilities.

Additional sections of the course were offered to students who, because of the number of developmental courses needed, were unable to enroll in credit-bearing courses yet needed to be full-time students for financial aid or health insurance reasons. As a credit-equivalent course it did not fulfill degree requirements, but it did satisfy the requirements for full time status and financial aid eligibility. After nearly 20 years of steady enrollment, under the auspices of Title III, a college initiative to develop a credit-bearing college success course modeled after the “Becoming a Master Student” course began in 2001. Following institutional approval, 24 sections of the credit-bearing college success course were first offered in fall 2003 by the Psychology and Education Department. While it was required of all entering students who placed into at least two developmental areas, when the course was initially approved, there were two enrollment caveats. Because of concerns that students who tested into the first level of developmental reading would lack the comprehension skills needed to be successful in the course, they were precluded from the course, regardless of the number of developmental courses they needed. Additionally, students who tested into Algebra II, the highest level of developmental mathematics, as well as one other developmental course were not required to enroll in the college success course. In 2008, the institution’s governing body approved a change in the course’s enrollment criteria to include students who tested into the first level of developmental reading. Currently, the Algebra II exclusion remains in effect.

From its inception, the credit-bearing course enjoyed support from a newly hired Dean who brought significant college success course knowledge and experience from her previous institution. Best practices workshops were held each semester at which teaching

strategies and assignments were discussed and a syllabus template was provided to instructors. The template outlined the three core concepts of the course: career exploration, information literacy, and student success strategies. Beyond this, instructors were given ample flexibility to develop additional assignments and activities designed to meet course objectives and to share them with fellow instructors.

From fall 2003 to fall 2010, course enrollment more than doubled from 656 students to 1,553. This was due in part to the fall 2008 change in course enrollment criteria which expanded to include students who tested into the first level of developmental reading.

Over the years, attrition, personnel changes, and organizational restructuring at the research site diffused the leadership base for the course. More recently, institutional efforts have focused on strategies to help incoming students become successful. First year student initiatives including the implementation of a newly designed orientation program and the opening of a Learning Center to support students in developmental classes were introduced. In addition to these initiatives, the History and Social Science Department (formally the Psychology and Education Department) refocused its attention on the college success course.

The original syllabus template and the three core concepts were revisited. The curriculum was revised to re-establish cohesiveness and increase the academic rigor of the course. The current content areas and learning outcomes were created in fall 2008 by full time faculty who were teaching the course. These faculty-developed content areas and learning outcomes were subsequently reviewed and approved by the History and Social Science Department. At a voluntary adjunct faculty training session in November

2008, a focus group was held at which it was agreed that the content and outcomes were appropriate. A standardized syllabus, currently in use by all instructors, was introduced in fall 2010. The syllabus was developed by full time teaching faculty and non-teaching faculty (i.e., counselors and librarians) during the 2009 – 2010 academic year. A series of meetings were held in the summer of 2010 with representatives from Academic Advising, Registrar, Counseling and Career Services, First Year Experience, and the Library in order to gather input from key student services providers. The standardized syllabus brought a more clearly defined level of consistency to course topics and the corresponding skills expected of first semester students, with an emphasis on research-based success strategies and information literacy skills. Mandatory training using the new syllabus was provided to adjunct instructors prior to the start of the fall 2010 semester. A follow-up meeting during the semester with teaching faculty and student services providers resulted in a modification to the syllabus, with a shift to a portfolio model (C. Harrington, personal communication, May 26, 2011).

Course content areas include “Getting to Know the Institution,” “Personal Student Success Factors,” and “Academic Student Success Factors.” These overarching content areas align with the three common goals of college success courses which were mentioned earlier in this chapter. The first and second goals, “identifying campus resources” and “establishing relationships with other students and faculty members,” are addressed through “Getting to Know the Institution.” The third goal, “assessing and improving students’ academic and life management skills” is addressed through “Personal Student Success Factors” and “Academic Success Factors.” The associated

learning outcomes were revised slightly so that students who successfully complete the course are expected to be able to:

1. Discuss and apply study skills and student success research to daily practices as a college student.
2. Identify and critically evaluate information related to success in college.
3. Develop personally meaningful oral, visual, and written summaries of student success concepts.
4. Identify and engage in productive and ethical student behaviors.
5. Demonstrate effective interpersonal skills in groups and connections outside of the classroom.

(Middlesex County College, “SSD 101 Student Success,” 2010).

One of the defining features of the institution’s college success course has been its collaboration with various student services departments in the delivery of course content. As part of the curriculum, a class visit to the Department of Counseling and Career Services is scheduled early in the semester, enabling students to participate in an interactive student success workshop and discussion. At mid-semester, the Academic Advising Center provides each class with one-on-one advising designed to meet the specific needs of first semester students. This is followed by an in-class registration session to ensure optimal course selection for students. To help students develop their information literacy and research skills, reference librarians have created and present an interactive class session during which students learn how to use the library’s online databases to find relevant and appropriate journal articles for the course’s research assignment.

The addition of online sections of the college success course did not result in any changes to the standardized syllabus. While course content areas and learning outcomes have remained consistent for all sections of the course, the delivery of course content by the various student services departments was modified for the online sections of the course. During the fall 2011 semester, meetings between the curriculum coordinator and representatives from the Academic Advising Center, the Department of Counseling and Career Services, and the Library were held to discuss how best to adapt the in-class presentations for the online sections of the college success course. In lieu of face-to-face sessions, narrated PowerPoint presentations in conjunction with related discussion boards facilitated by advisors, counselors, and librarians are introduced at appropriate points in the semester in each of the online sections of the course. The development of these online components extends the collaborative work of the student services departments beyond the traditional classroom to the virtual environment of the college success course in order to provide online students with the same course content as their on-ground counterparts.

Whether online or on-ground, the contributions of the student services departments are essential elements of the college success course. A student learning outcomes self-assessment questionnaire was developed by the curriculum coordinator and administered to college success students at the start of the fall 2010 to gauge their knowledge of and ability to access various student support services. The assessment was administered again in December to measure changes in their knowledge and abilities at the end of the course. The largest gains were reported in three areas: library database search skills, ability to access a library database from on and off campus, and knowledge

of the career exploration process. The number of students who agreed or strongly agreed with the statement, “I am able to identify search strategies to use in PSYCINFO” increased by 44%. Additionally, the number of students who agreed or strongly agreed with the statement, “I am able to access the key library psychology subject database from on and off campus” increased by 29%, while 20% more students agreed or strongly agreed with the statement “I am able to identify the basic steps involved in the career exploration process.” By the conclusion of the course, 80% of the students surveyed agreed or strongly agreed with the statement, “I know where to go for assistance with academic advising, transfer, or career decision making assistance and 79% of students agreed or strongly agreed with the following statements: “I am able to identify available campus resources” and “I am able to identify the role of supports and obstacles in achieving goals” (Harrington, 2010).

These responses emphasize what Tinto (1999) sees as critical to the course—the “integration of the freshman seminar and the important concepts that underlie it into the very fabric of the first year” (p. 8). They also illustrate the positive outcomes that have resulted from the partnership that has developed between the student services and academic areas of the institution. This is important given that Williams (2002) identified “a renewed focus on student learning and success and the need to demonstrate more clearly the benefits of the work of student services units for students and the institution” as two of the key challenges facing community college’s student services departments (p. 67). To meet these challenges, Culp (2005) asserts that student services professionals must engage students through “programs and services that invite—even force—students to connect with faculty, staff, one another, and academic subject matter” and use

technology to “reengineer processes, encourage academic and student affairs partnerships, and reward applications that transform learning, support services, and day-to-day operations” (pp. 79 - 80). The research site’s comprehensive, transition-themed college success course provides the ideal mechanism to establish these connections which are vital to student engagement and persistence.

Study Sample

Given that a limited number of online sections of the college success course are offered each semester which, by extension, limits the number of online students, a purposive sample is being used in this study. Unlike probability sampling which utilizes mathematical formulas to select a large number of participants from an even larger population, purposive sampling is a non-probability approach that relies on researcher judgment to select a small number of participants in order to obtain the most information about a specific phenomenon. Whereas probability sampling leads to greater breadth of information, non-probability sampling, such as purposive sampling, leads to greater depth of information and is often used in mixed methods research (Teddlie & Yu, 2007, p. 83).

The research site offered 42 sections of the college success course during the fall 2014 semester. The breakdown was as follows: 25 daytime sections, three online sections, one high school section, one Saturday section, and 12 evening sections. The sample was comprised of students enrolled in two online sections of the college success course and students enrolled in two, classroom-based evening sections of the course. In an effort to select a sample that was as homogeneous as possible, the day sections were eliminated from consideration. Online classes generally attract non-traditional students who have family and job responsibilities which make attending on-ground classes

problematic (Aslanian, as cited in Xu & Jaggars, 2013, p. 1; Pontes et al., 2010, p.8).

Similarly, evening students cite employment obligations as one of the primary reasons for enrolling in night classes (Hoyt, Howell, & Young, 2009, p. 88). While non-traditional students do enroll in daytime classes, the sample was limited to students in the evening sections of the course in order to increase the likelihood that the on-ground study participants will possess characteristics similar to those of the students in the online sections.

The online sections of the college success course were offered in three variations during the fall semester: a traditional, 14 week session, a seven-week session during the first half of the fall semester, and a seven-week session during the second half of the fall semester. Because their participation was essential to the study, I contacted all three online instructors in advance of the start of the semester to determine if they met the criteria for inclusion in the study. The criteria included: experience teaching the college success course, offering extra credit opportunities as a matter of practice, and use of the standardized final exam. While all three instructors met the criteria and were willing to participate, it made logistical sense to use the first seven-week online section for the second phase of the pilot study. As a result, the two online sections that participated in the actual study were the 14-week session and the second seven-week session.

To align with the criteria of the online instructors, I only included evening instructors who possessed comparable teaching experience, offered extra credit opportunities, used the standardized final exam, and maintained weekly attendance records. Once the fall schedule was confirmed and all low-enrolled sections were cancelled, I consulted the Chairperson of the History and Social Science Department to

verify the evening instructors' teaching experience. Based on her advice, I eliminated four of the evening instructors from consideration which resulted in seven potential evening sections. I emailed the five instructors (one of the instructors was teaching three evening sections) to gauge their interest in participating in the study and to determine if they met the remaining criteria. The instructor who was teaching three sections responded in the positive, but she did not offer extra credit opportunities. Her sections were eliminated from consideration. Of the remaining four instructors/four sections, only two instructors responded to my inquiry. They both met the criteria and were willing to participate. It should be noted that one of these evening instructors was also teaching the second seven-week online section. The college success course is well established and given the manner in which the purposive sample was obtained, there was consistency among the four sections with regard to course content, learning outcomes, and pedagogical practices.

At the start of the fall semester, there were 44 students enrolled among the two online sections and 46 students enrolled among the two on-ground sections, providing a potential pool of 90 participants. All online students attended a mandatory, in-person orientation for students enrolled in online sections of the college success course. There was no orientation, mandatory or voluntary, for on-ground students.

During the semester, attrition, which occurred as students officially withdrew from the course, reduced the potential starting pool of 46 on-ground students to 43. Student absences on the nights of my classroom visits reduced the pool to 33, of which 31 completed the informed consent forms. Attrition in the internet sections reduced the potential starting pool of 44 online students to 33. Of the 33 students enrolled among the

two sections, 21 began the online questionnaires. In the end, the study sample was comprised of 52 students from the four college success course sections.

When controlled for demographics, studies of community college students in online introductory and developmental courses have generally found them to be older white females, with higher reading and writing scores who are attending part time (Blackner, 2000; Carpenter et al., 2004; Rosenfeld, 2005; Summerlin, 2003). This study focused on students enrolled in the college success course, irrespective of demographics. Nevertheless, participant demographics are presented in the following tables to provide their characteristics relative to the general student population.

Table 1

Age

	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)	Total (<i>N</i> = 52)
Mean	21	19.8	20.3
Median	18	19	19
Mode	18	18	18
Minimum	18	18	18
Maximum	39	26	39

The average age of all participants was 20.3 years of age. This was nearly three years younger than the average age of the fall 2014 general student population. Online

students were slightly older than their on-ground counterparts, with an average age of 21 as compared to 19.8 for the students in the classroom-based sections. While the minimum age for online and on-ground students was 18, the oldest student was enrolled in an online section of the course.

Table 2

Gender

	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)	Total (<i>N</i> = 52)
Male	42.9%	29.0%	34.6%
Female	57.1%	71.0%	65.5%

Nearly two-thirds of the study participants were female. This was 12 percentage points higher than the overall number of female students enrolled in the fall 2014 semester. When disaggregated by delivery mode, the gender distribution was dramatically different. Close to three quarters of the on-ground students were female, compared to a more equitable distribution, in terms of gender, among the online students.

Table 3

Race and Ethnicity

	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)	Total (<i>N</i> = 52)
Hispanic	28.6%	41.9%	36.5%
Non-Hispanic	66.7%	45.2%	53.9%
White	28.67	29.0%	28.9%
Black	42.9%	12.9%	25.0%
Latino	19.1%	19.4%	19.2%
Asian	4.8%	6.5%	5.8%
Other	0.0%	3.2%	1.9%
2 or More	0.0%	9.7%	5.8%
Unknown	0.0%	9.7%	5.8%

Slightly more than one-third of the participants in the study identified themselves as Hispanic, as compared to 28.7% of the general student population. Just over one-half identified themselves as Non-Hispanic. White, Black and Latino students comprised just over 73% of the participants, which was nearly identical to the percentage of the general student population who identified themselves as such. When disaggregated by delivery mode, the enrollment of White students in both online and on-ground sections was nearly

identical, while the number of Black students enrolled in the online sections was more than double that of the White and Latino students combined. The number of Asian students was small, but fairly consistent, both overall, and when disaggregated by delivery mode.

Table 4

Other Characteristics

	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)	Total (<i>N</i> = 52)
1 st Semester Students	76.19%	83.87%	82.69%
H.S. Graduates	100%	96.77%	98.1%
GED Holders	0.00%	3.23%	1.90%
ESL Students	0.00%	0.00%	0.00%

The study sample was overwhelmingly comprised of first semester students, with a slightly lower percentage of first-semester students in the online sections. With the exception of one GED recipient, all of the study participants were U.S. high school graduates. Information on the students' first language was not available, but it should be noted that none of the study participants were required to complete ESL courses at the institution. While this is not an indicator of their first language, it does provide some context with regard to the level of their English language skills.

For first semester students, enrollment in the college success course occurred during new student orientation and registration sessions when advisors assisted entering

students with course selection. Based on college placement test scores, students who were required to take the college success course were directed to include it in their schedule. Students self-selected the section of the college success course in which they wanted to enroll. While advisors may have offered objective advice to students who were considering from among the various course delivery options, the final decision was left to the student. Returning students registered for the course either through self-advisement or following a one-on-one meeting with an academic advisor. Although the study was conducted at my place of employment, I was not involved in the advisement and registration process of the students who enrolled in the college success course for the fall 2014 semester, so there was no possibility of coercion or manipulation of student registrations.

Data Collection

During the week of November 17, I visited the two evening sections of the college success course. In each class, I described the study and solicited volunteers to complete the questionnaires and participate in interviews. After determining that all of the students were at least 18 years of age, I distributed the appropriate informed consent forms for both the questionnaire and interview aspects of the study. The forms were completed in class and collected by me (Appendices E and F). Among the two sections, 31 students completed the informed consent form for the questionnaires. I administered the student self-assessment questionnaire and the CCS during my classroom visits. A total of 30 students fully completed the student self-assessment questionnaire and 28 students fully completed the CCS. I also circulated a student information sheet to gather contact information from the students who agreed to be interviewed (Appendix G).

Between the two evening sections, 13 on-ground students signed up to be interviewed. I spent the latter part of that week and the early part of the next week contacting and following up with potential interviewees by phone and email, depending upon their preference, to schedule interviews. In the end, eight students responded to my inquiries and I was able to complete the interviews with the on-ground students by the end of the semester.

During the week of November 17, I also sent 33 personalized emails to students in the two online sections of the course inviting them to participate in the questionnaire portion of the study (Appendix H). Both online instructors posted announcements and sent emails to their students reminding them of the opportunity. If students were 18 years of age or older, my email instructed them to access the questionnaires through a link on their course dashboard. Students under the age of 18 were instructed to contact me first to obtain the informed consent form for minors before accessing the online questionnaires. Since all of the online students were at least 18 years of age, the informed consent form for minors was not used. Instead, participants completed an alternate informed consent form which was embedded at beginning of the online questionnaires (Appendix I). The online questionnaires were available from November 20 through December 11, 2014. During this timeframe, 21 students began the student self-assessment questionnaire, with 19 students fully completing the instrument. The CCS was started by 20 students and fully completed by 13 students.

On November 29, I sent a second email to the all of the online students inviting them to participate in the interview portion of the study (Appendix J). An alternate consent form was attached to the email as a PDF file (Appendix K). Students who

wanted to participate in an interview were directed to complete the consent form electronically and return it to me using their college email account. I sent a follow-up email the next week. In the end, six of the 33 students agreed to be interviewed and I was able to schedule and conduct all of the interviews with the online students before the end of the semester.

The informed consent forms for the questionnaires also gave me permission to access online and on-ground students' final exam results, attendance records or student tracking reports, as well as their academic and demographic records in the institution's student information system.

During the data collection phase of the study, 21 online and 31 on-ground students gave me permission to access their student records. A total of 49 students (19 online and 30 on-ground) completed the student self-assessment questionnaire in its entirety. A total of 41 students (13 online and 28 on-ground) completed the CCS in its entirety. Only fully completed survey instruments were used in the study.

Extra credit incentives were used in all four sections of the course to encourage participation in the study. Since these instructors already offered optional extra credit opportunities in their classes, they agreed to include two additional opportunities for their students. Among the already existing extra credit opportunities in their classes, students could also opt to complete the questionnaires and/or participate in an interview. This was an appropriate incentive in accordance with Standard 8 of the Ethical Principles of Psychologists and the Code of Conduct of the American Psychological Association which states, "When research participation is a course requirement or an opportunity for extra credit, the prospective participant is given the choice of equitable alternative

activities” (American Psychological Association, 2013). In keeping with the American Psychological Association’s standards, students in the four sections were free to select from a variety of extra credit alternatives which also included the two study-related opportunities.

Using the contact information provided by the on-ground and online students, I conducted 14 telephone interviews between November 21 and December 12, the last day of the fall 2014 semester. While it was likely that on-ground students were available for in-person interviews on campus, it was just as likely that online students were not regularly on campus. This was my initial rationale for conducting telephone interviews. I wanted to maximize the pool of potential interviewees and offer all students an equal opportunity to participate in an interview. Additionally, given the importance of collecting my data as close to the end of the semester as possible, scheduling telephone interviews was an effective way to reach all of the students before the semester ended. I also hoped that the convenience of a telephone interview might prompt more students to participate. Lastly, by only conducting telephone interviews I was able to apply a consistent interview process to both groups of students.

The names of the questionnaire and interview participants were submitted to their respective instructors by the last day of the semester to ensure that extra credit would be awarded accordingly. No cost was incurred by students who participated in the study. Students’ participation or non-participation did not adversely affect their course grades. All students had an equal opportunity to participate in one or both parts of the research study. The research design did not pose any risk to the participants and the study did not involve the deception of students. Additionally, I did not carry out procedures or ask

questions that disturbed the students emotionally or produced stress or anxiety. Participation was voluntary and students were free to opt out of the study at any time during the process without penalty. Participants' names will remain confidential. Pseudonyms were used where needed and student outcomes data was reported in the aggregate. The findings are stored in a locked file cabinet in my home office. Three years hence, the data will be disposed of by destroying all notes, drafts, lists of subjects, digital files and any other materials related to the study.

Data Analysis

At the conclusion of the semester, I retrieved demographic and registration information from the institution's student information system (SIS) for the 52 students who gave me permission to access their academic records. The data included: age, gender, race/ethnicity, high school graduation or GED status, spring registration status, college success course grade, term grade point average, cumulative grade point average, and academic status. I had intended to gather data on students' first language and their status as a first generation college student, however that information is not maintained in the SIS and I was unable to do so. Instead, I reviewed each student record for ESL enrollment activity as a possible indicator of their first language and English language skills.

Attendance records and course-specific information was provided by the on-ground instructors. Each instructor completed an Excel spreadsheet listing the number of missed classes for each participant, as well as their final exam grade and the question numbers they answered incorrectly on the final exam.

With assistance from the online instructors, in lieu of attendance records, I generated Student Tracking Reports for each participant. The reports captured course information in three areas: course tools, assignments, and assessments. The Tools Report listed the 10 course tools available for students (Announcements, Bookmarks, Chat Room, Message Board, My Assessments, My Assignments, My Course Content, My Grades, My Journal, and Shared Files) and tracked the number of clicks per tool, the time spent on each tool, the number of sessions per tool, and the cumulative total of clicks, time, and sessions. The Assignments Report listed all of the course assignments and tracked the number of clicks per assignment, the time spent on each assignment, and the cumulative total of clicks and time spent on all assignments. The Assessments Report listed all of the course quizzes and the final exam and tracked the number of clicks per assessment, the time spent on each assessment, and the cumulative total of clicks and time spent on all of the assessments. I also generated summative reports using the Student Tracking feature. The reports displayed cumulative data for the three areas (Tools, Assignments, and Assessments) in terms of the number of clicks, sessions, and time spent per student and for the class as a whole. I retrieved the online participants' final exam grades and their incorrect answers through the individual participant's Assessment Report.

In order to organize and record this data, I created an Excel workbook. The workbook contained seven worksheets:

1. The Demographics worksheet contained information on participants' age, gender, race/ethnicity, and their status as a high school graduate or GED recipient, first semester student, and ESL student.

2. The Academics and Enrollment worksheet listed the participants' college success course grade, academic status, term GPA, term credits attempted, term credits completed, cumulative GPA, and their winter, spring, summer, and fall 2015 registration.
3. The Final Exam Analysis worksheet displayed each participants' college success course final exam grade and a summary of their answers to the exam questions.
4. The On-Ground Attendance worksheet tallied the number of missed classes per student.
5. The Online Activity worksheet summarized the student tracking reports by course tools (Announcements, Bookmarks, Chat Room, Message Board, Assessments, Assignments, My Course Content, My Grades, My Journal, Shared Files) and tallied participants' use of each tool by number of clicks, total time, and number of sessions.
6. The Self-Assessment worksheet recorded participants' responses to the Student Self-Assessment Questionnaire.
7. The CCS worksheet recorded participants' responses the Classroom Community Scale.

Within the workbook, the seven worksheets were linked by the Participant ID Number (a randomly selected number assigned to each participant) and/or the Section Designation (classroom section or online section).

I used Excel to calculate descriptive statistics related to study sample demographics, on-ground students' attendance, and online students' use of course tools.

I used SPSS to conduct inferential (parametric and non-parametric) statistical analyses of the final exam grades, overall course grades, term grade point averages,

persistence rates, withdrawal rates, and the results of the Student Self-Assessment Survey and Classroom Community Scale.

Following each interview, I generated a verbatim transcription of the recording, including annotations, either from memory or from notes taken during the interview, regarding voice inflections, interruptions, pauses, or any other distinguishing aspects of the interview. After all of the recordings were transcribed, I carefully read each transcript multiple times. I prepared analytical memos to capture the overall tone of the interview and hand-coded each transcript. This process produced 13 overarching codes: Student-to-Student Intellectual Interactions (S2SI), Student-to-Student Social Interactions (S2SS), Student to Instructor Intellectual Interactions (S2II), Student-to Instructor Social Interactions (S2IS), Student-to-College Personnel Intellectual Interaction (S2CPI), Student-to-College Personnel Social Interactions (S2CPS), On-ground Attendance (OGA), Class Participation Type (CPT), Login Frequency (LIF), Online Activities (OLA), Time Spent on Course-Related Activities (TSCRA), and Enduring Connections (EC).

Student-to-Student, Student-to-Instructor, and Student-to College Personnel codes were further refined to include sub-codes for more specificity. Sub-codes for the Student-to-Student and Student-to-College Personnel codes included: Who, Topic, Frequency, and Setting. The sub-codes for the Student-to-Instructor codes included Topic, Frequency, and Setting. I used Bloomberg and Volpe's (2012) approach to qualitative analysis and created a data summary table to compile synopses of the codes and sub-codes for each interviewee (p. 144 – 145).

In keeping with the spirit of qualitative research, a narrative approach was used to discuss the themes that emerged from the interview data. The qualitative and quantitative results were synthesized and inferences drawn in order to analyze the influence of engagement on student outcomes in the online and on-ground sections of the college success course. Themes related to the nature of involvement were compared to the CCS scores of the online and on-ground students to determine if students' perceptions of the nature of their involvement in the college success course were consistent with their individual scores on the CCS. Similarly, themes related to the level of involvement were compared to the attendance records of on-ground students and the login activity of online students to determine if students' perceptions of their level of involvement aligned with their actual classroom attendance or login activity. Overall results for the online and on-ground students were examined holistically to identify differences and similarities in the perceptions of the two groups of students.

As the data analysis process proceeded, I used the data summary table and the interview transcripts to compare, contrast, and synthesize my findings and identify relationships between learning outcomes and student engagement in the online and on-ground sections of the college success course. The blending of these qualitative and quantitative data strands provided a richer and more nuanced understanding of engagement--one that identified commonalities among Astin and Tinto's theories and explored the interplay between the nature and level of involvement within the broader context of student engagement.

Although the sample size was small, this study focused on areas of research that have been largely ignored. Most studies of college success courses have been conducted

at four-year institutions, with little attention paid to college success courses on community college campuses. Studies have primarily focused on quantitative data related to student outcomes, with limited research available on the perspectives of college success course students. The introduction of an online version of the college success course at the research site brought an added dimension to the course—one which warranted examination in light of the research which points to student persistence and engagement issues in online courses. To date, most studies have treated each of these research areas as distinct entities. By using a mixed methods design, one of the goals of this study was to bring these previously disparate areas together in order to provide a more comprehensive picture of the college success course and the community college students who enroll in the online and on-ground versions of the course. The study sought to answer questions about the relationships among these variables. Establishing causality between the variables was beyond the scope of this study.

Chapter 4

Findings

Introduction

This mixed methods study examined the influence of student engagement on the outcomes of students enrolled in online and on-ground sections of a college success course at a suburban community college. Over the last four decades, college success courses have facilitated the transition of first year students to college, particularly those who are enrolled in developmental courses (Boudreau & Kromrey, 1994; Thelin, 2004). Supportive learning environments and opportunities to connect with instructors and peers, as well as campus staff and resources, are prominent features of most college success courses. With the growth in online learning, these courses, which have traditionally been offered as classroom-based seminars, are making their way to the internet. While online courses enable colleges to meet the needs of students who are unable to attend on-campus classes, recent studies of online learning have consistently reported higher withdrawal rates, lower persistence rates, weaker academic performance, and lower levels of engagement among students enrolled in online courses (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). These findings are especially troublesome for college success courses which are designed to strengthen first semester students' academic skills, encourage engagement, and promote persistence. In light of these findings, offering the college success course in an online format seems contradictory to its underlying philosophy, possibly putting inexperienced first semester students at an even greater academic disadvantage. The purpose of this study is to understand the experience of students in the online and on-ground sections of a college

success course in terms of their engagement with the course, as measured by the level and nature of their involvement with the course, and how that engagement may influence their learning outcomes.

This chapter, which presents the study's findings, begins with a reiteration of the theoretical framework and the research questions. Next, the quantitative and qualitative data are provided in narrative and graphic form along with a synthesis and analysis of the data.

Theoretical Framework

The study is based on a theoretical framework that is grounded in the social constructivist worldview. Constructivist learning theory asserts that “learning engages a student’s entire psychological, physiological, and emotional energy, and that the learning process is impacted by the environment (Mashaw, 2012, p.125). Social constructivism builds on that notion to suggest that the personal meaning that students develop as part of the learning process is further influenced by their social interaction with others and the historical and cultural norms that exist in their lives (Creswell, 2007, p. 21). Today’s higher education environment is in flux. Technological advances are upending time-honored norms, offering alternative course delivery modalities and new ways for students to interact with classmates, instructors, college personnel, and course material. Within this social constructivist worldview, the seminal works of Alexander Astin and Vincent Tinto, which explore the physical, intellectual, and social aspects of student engagement, were used to provide the foundation for the research questions.

Research Questions

The research questions that guided the study serve to address gaps in the literature on college success courses at community colleges, with the added goal of contributing to the research on student outcomes and engagement in online courses. They are as follows:

1. What are the outcomes among students in the online and on-ground sections of the college success course in terms of: final exam grades, overall course grades, self-assessment of course learning outcomes, persistence rates, withdrawal rates, and term GPA?
2. What is the level of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the level of involvement influence student outcomes?
 - b. How does this differ by delivery method?
3. What is the nature of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the nature of involvement influence student outcomes?
 - b. How does this differ by delivery method?

Student Outcomes

Over the last few decades, the benefits of college success courses have been demonstrated in studies that consistently report their favorable effect on such student outcomes as first to second year persistence, number of credit hours earned, grade point average, and graduation rates (Ben-Avie et al., 2012; Boudreau & Kromrey, 1994; Cho & Karp, 2013; Pascarella & Terrenzini, 2005; Schnell et al., 2003; Zeidenberg et al., 2007). Although well documented, these positive outcomes must not be taken for granted.

Technological innovations are reshaping the higher education landscape. College success course outcomes must be revisited as these courses transition to the online learning environment of the twenty-first century. This is particularly important in light of studies which have found that students in online courses are more likely to withdraw, less likely to persist, and often demonstrate weaker academic performance (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Waschull, 2001; Xu & Jaggars, 2011). To that end, student outcomes figured prominently in this study. Outcomes data were obtained from the administration of the student self-assessment questionnaire and the Classroom Community Scale (CCS), as well as academic and enrollment information retrieved from the institution's student information system and the course instructors. The findings related to these outcomes data are presented below.

Self-assessment of course learning outcomes. National data has found that nearly all students enter community colleges with high levels of motivation and a desire to succeed (Center for Community College Student Engagement, 2015). The student self-assessment questionnaire used in this study was developed by the History and Social Science Department and has been part of the assessment activities associated with the college success course for more than four years. Its purpose is to indirectly measure the extent to which students believe that they have achieved the learning outcomes of the course. The questionnaire is comprised of five statements, one for each of the course learning outcomes. Students rate themselves using a five-point Likert scale, which ranges from 1 (strongly disagree) to 5 (strongly agree). I administered the questionnaire in paper format to the on-ground students and via the LMS to the online students. Of the 52 students in the study, 49 students completed the questionnaire.

As Table 5 shows, consistent with the national data, student responses were generally optimistic. The percentage of online and on-ground students who strongly agreed or agreed with each of the learning outcomes statements exceeded the percentage of students from both groups who disagreed or were neutral. Moreover, none of the online or on-ground students strongly disagreed with any of the statements.

Table 5

Student Self-Assessment Questionnaire Results

Learning Outcomes	Strongly Agree/ Agree		Neutral		Strongly Disagree/ Disagree	
	Online Students (n = 19)	On-Ground Students (n = 30)	Online Students (n = 19)	On-Ground Students (n = 30)	Online Students (n = 19)	On-Ground Students (n = 30)
1. I am able to discuss & apply study skills & student success research to daily practices as a college student	73.7% (14)	80% (24)	15.8% (3)	13.3% (4)	10.5% (2)	6.7% (2)
2. I am able to identify & critically evaluate information related to success in college	79% (15)	90% (27)	21% (4)	10% (3)	0% (0)	0% (0)

Table 5 (continued)

Learning Outcomes	Strongly Agree/ Agree		Neutral		Strongly Disagree/ Disagree	
	Online Students (n = 19)	On-Ground Students (n = 30)	Online Students (n = 19)	On-Ground Students (n = 30)	Online Students (n = 19)	On-Ground Students (n = 30)
3. I am able to develop personally meaningful oral, visual, & written summaries of student success concepts student	73.7% (14)	83.3% (25)	26.3% (5)	13.3% (4)	0% (0)	3.3% (1)
4. I am able to identify & engage in productive & ethical student behaviors	79% (15)	83.3% (25)	15.8% (3)	16.7% (5)	5.2% (1)	0% (0)
5. I am able to demonstrate effective interpersonal skills in groups & connections outside of the classroom	68.4% (13)	83.3% (25)	31.6% (6)	10% (3)	0% (0)	6.7% (2)

Note. None of the respondents selected strongly disagree as a response to any of the learning outcome statements. As a result, the figures presented in the strongly disagree/disagree column represent those students who selected disagree as their response to the statement.

While online and on-ground students' responses were largely positive, a closer examination of the data revealed distinctions between the two groups which are important to consider. The percentage of on-ground students who strongly agreed or agreed with each learning outcomes statement exceeded that of the online students for all five outcomes, with Learning Outcome #4 (I am able to identify and engage in productive and ethical student behaviors) generating the smallest difference between the two groups. Predictably, Learning Outcome #5 (I am able to demonstrate effective interpersonal skills in groups and connections outside of the classroom) generated the largest difference in the strongly agree/agree category, producing the lowest percentage (68.4%) of online students who strongly agreed or agreed with the statement. Conversely, the neutral ratings of the online students exceeded those of the on-ground students for four of the five statements, with Learning Outcome #4 (I am able to identify and engage in productive and ethical student behaviors) generating the smallest difference between the two groups. For that statement, the neutral rating of online and on-ground students differed by less than one percentage point, at 15.8% and 16.7% respectively. Learning Outcome #5 (I am able to demonstrate effective interpersonal skills in groups & connections outside of the classroom) generated the highest percentage (31.6%) of neutral responses by online students, resulting in the largest difference between the two groups of students in the neutral category. This difference is not surprising. Unlike their on-ground peers, online students did not have a classroom environment to practice the skills they were learning about and limited opportunities to apply those skills in real-life situations.

I used a Mann-Whitney *U* Test to examine the online and on-ground students' responses to each of the learning outcomes statements. No significant differences were

found among the two groups' responses to the statements. The *U* value obtained for learning outcome statements one through five were, respectively, 268, 246, 262.5, 265, and 221. The respective significance levels for learning outcomes one through five were .71, .37, .59, .65, and .15.

Although these findings lacked statistical significance, they should not be discounted. Consideration should be given to their practical significance (Kirk, 1996, p. 746). The higher percentage of neutral responses by online students suggests a greater sense of ambivalence in their ability to meet the learning outcomes, while the higher percentage of strongly agree or agree responses by on-ground students implies more confidence in their ability to meet the outcomes of the course. As will be seen in subsequent findings, when considered within the larger context of student outcomes, this nuanced examination of the student self-assessment questionnaire more closely aligns with the participants' overall academic performance.

In addition to the self-assessment questionnaire, the learning sub-scale of the CCS was also used to gauge students' sense of learning outcomes achievement. Using a Likert scale, the sub-scale measures students' perceptions of how interaction is used within the class to construct understanding and the extent to which their learning goals are met. Of the 52 students in the sample, 41 completed the CCS. Sub-scale scores can range from 0 to 40. An analysis of the learning sub-scale results, which is presented in Table 6, found that the average score of the online students was 3.74 points lower than that of the on-ground students.

Table 6

Classroom Community Scale (CCS): Learning Sub-Scale Scores

	Online Students (<i>n</i> = 13)	On-Ground Students (<i>n</i> = 28)
Mean	24.15	27.89
Minimum	12	22
Maximum	36	36

I conducted an Independent-Samples t-Test to compare the sub-scale scores.

There was no significant difference in the learning sub-scale scores of the online students ($M = 24.15$, $SD = 7.68$) and the on-ground students [$M = 27.89$, $SD = 3.39$; $t(14.20) = 1.68$, $p = .12$]. The magnitude of the difference in the means was moderate (eta squared = .07).

As evidenced by the results of the learning sub-scale of the CCS and the student self-assessment questionnaire, irrespective of delivery method, students shared similarly optimistic perceptions regarding their achievement of course learning outcomes.

However when these perceptions were considered in relation to the findings concerning final exam grades, overall course grades, and term GPA, a disparity between perception and reality was evident. Although online students' perceptions of course outcomes achievement did not differ significantly from that of the on-ground students, in actuality, their academic performance did.

Final exam grades. A standardized final exam was administered to the four course sections participating in the study. The exam was comprised of 50 multiple choice questions. The questions were selected from the text's test bank by the curriculum coordinator and mapped to the course content areas and learning outcomes. The distribution of the final exam scores for the entire sample is presented in Table 7. Approximately 87% of the on-ground students earned a minimum score of 70 as compared to 61.9% of the online students.

Table 7

Final Exam Score Distribution

Score Range	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
90 – 100	2	7
80 – 89	6	10
70 – 79	5	10
60 – 69	1	2
50 – 59	1	1
40 – 49	0	1
30 – 39	1	0
20 – 29	0	0
10 – 19	0	0

0 – 9

5

0

Final exam statistics for the entire sample are summarized in Table 8. The online students' average score on the final exam was 22.1 points lower than that of their on-ground peers. While the minimum score of online students was 40 points lower than that of the on-ground students, the highest final exam score was earned by an online student.

Table 8

Final Exam Score Statistics

	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
Mean	57.6	79.7
Minimum	0	40
Maximum	98	96

I conducted an Independent-Samples t-Test to compare the final exam grades of the online and on-ground students. There was a significant difference in final exam scores among the online students ($M = 57.62$, $SD = 35.35$) and the on-ground students [$M = 79.68$, $SD = 12.50$; $t(50) = 2.75$, $p = 0.01$]. The magnitude of the difference in the means was large (eta squared = .13).

The significant difference in the final exam scores and the large magnitude of the difference was attributed to five actively enrolled online students who completed the

course, but did not take the final exam and received grades of zero. This was an unanticipated development as these students actively participated in the course to the end and this adversely affected the online students' overall final exam scores. While this did not occur with students in the on-ground sections, it did prompt me to consider how best to present the findings for both groups of students. Excluding the five students from the final exam grade calculations would have had a positive effect on the mean and minimum scores of the online students, increasing them to 75.6 and 38 respectively. This would have resulted in no significant difference in the final exam scores among the online students ($M = 75.63$, $SD = 14.61$) and the on-ground students [$M = 79.68$, $SD = 12.50$; $t(45) = .994$, $p = .33$]. The magnitude of the difference in the means would have been small (eta squared = .02). This would have suggested that online students who completed the course achieved final exam scores comparable to that of their on-ground peers. This would have aligned with studies that have reported outcomes of students who complete online courses as equal to that of students who complete the respective on-ground course (Blackner, 2000; Carpenter et al., 2004; Jaggars & Bailey, 2010; Rosenfeld, 2005; Summerlin, 2003; Waschull, 2001). However, eliminating the students from the calculations would have misrepresented the performance of the online sections relative to that of the on-ground sections. Including the five students who did participate in the full course but did not take the final provided a more comprehensive picture of the online students' academic performance and presented an anomaly that highlights how the level and nature of involvement influenced student outcomes.

While it was important to acknowledge the impact the five missing scores had on the entire sample, to provide a balanced perspective I also examined the final exam

results of the students who completed the exam. To that end, I grouped the exam questions according to their associated learning outcomes. Using the curriculum coordinator's "SSD 101 Final Exam Fall 2014 – Connection to Outcomes and Content" document, which is included in Appendix B, I mapped the questions to learning outcomes one, two, and four. Learning outcomes three and five were not assessed in the final exam as they were measured in other ways. For that reason, they were not included in this analysis. After mapping the questions to the learning outcomes, I conducted a Chi Square Test of Independence to determine if there was a difference between the online and on-ground students' answers when the questions were grouped by learning outcomes. As presented in Tables 9 through 11, the analysis found no significant difference in the online and on-ground students' answers to the questions.

Table 9

*Learning Outcome #1:
Discuss and Apply Study Skills and Student Success Research to Daily Practices
as a College Student*

	Online Students (<i>n</i> = 16)	On-Ground Students (<i>n</i> = 31)
Correct Answers	69.2% (155)	74.2% (322)
Incorrect Answers	30.8% (69)	25.8% (112)

There was no significant difference in the online and on-ground students' answers to questions associated with Learning Outcome #1 $X^2(2, N = 47) = 1.85, p = .17$.

Table 10

*Learning Outcome #2:
Identify and Critically Evaluate Information Related to Success in College*

	Online Students (<i>n</i> = 16)	On-Ground Students (<i>n</i> = 31)
Correct Answers	75% (84)	82% (178)
Incorrect Answers	25% (28)	18% (39)

There was no significant difference in the online and on-ground students' answers to questions associated with Learning Outcome #2 $X^2(1, N = 47) = 2.25, p = .13$.

Table 11

*Learning Outcome #4:
Identify and Engage in Productive and Ethical Student Behaviors*

	Online Students (<i>n</i> = 16)	On-Ground Students (<i>n</i> = 31)
Correct Answers	80.2% (372)	81.1% (729)
Incorrect Answers	19.8% (92)	18.9% (170)

There was no significant difference in the online and on-ground students' answers to questions associated with Learning Outcome #4 $X^2(1, N = 47) = .03, p = .86$.

As their responses to the self-assessment questionnaire showed, on-ground students conveyed more confidence in their ability to achieve the course learning outcomes than their online peers. This same perception was supported by the analysis of the final exam questions. While there were no significant differences among the two groups, the percentage of on-ground students' correct answers exceeded that of the online students for each of the learning outcomes groups.

As these analyses show, when the final exam data included only students who completed the exam, the results of the two groups did not significantly differ. This was consistent with research that has reported outcomes of students who remain enrolled in online courses to be comparable to those of students enrolled in respective on-ground sections (Blackner, 2000; Carpenter et al., 2004; Jaggars & Bailey, 2010; Rosenfeld, 2005; Summerlin, 2003; Waschull, 2001). However, as will be seen in the subsequent findings of this study, additional data analysis demonstrated that continued enrollment was a predictor of success only when enrolled students were actively engaged in the course.

Overall course grades. The grade distribution for the college success course is provided in Table 12. It should be noted that the institution does not use C-, D+, or D- in its grading system. While one-third of the online students earned a minimum grade of C in the course, 93.5% of the on-ground students earned a C or better in the college success course. None of the on-ground students failed the course, however nearly half (42.9%) of the online students did not pass the course.

Table 12

Overall Course Grade Distributions

Grade	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
A	9.5%	41.9%

Table 12 (continued)

Grade	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
A-	0.0 %	9.7%
B+	14.3%	12.9%
B	0.0%	16.1%
B-	4.8%	6.5%
C	4.8%	6.5%
D	23.8%	6.5%
F	42.9%	0.0%

I conducted an Independent-Samples t-Test to compare the overall course grades of the online and on-ground students. Using SPSS, I assigned the following numeric values to the letter grades: A = 1, A- = 2, B+ = 3, B = 4, B- = 5, C+ = 6, C = 7, D = 8, F = 9. A significant difference was found among the online students ($M = 6.86$, $SD = 2.87$) and the on-ground students [$M = 3.00$, $SD = 2.25$; $t(50) = -5.42$, $p = 0.00$]. The magnitude of the difference in the means was very large (eta squared = .37). I verified these results by conducting a separate Independent-Samples t-Test which included C-,

D+, and D- as if they were part of the institution's grading system and it also found a significant difference among the two groups of students.

Overall course grades were significantly lower for online students, due in large part to nine online students who failed the course. Among this group were the five students who did not take the final exam. Excluding the five students from the overall grade calculations would have decreased the percentage of online students who failed the course to 19.1%. Unlike the effect their exclusion had on the results of the final exam scores, this would not have eliminated the statistically significant difference between the overall course grades of the online students ($M = 7.56$, $SD = 4.20$) and on-ground students [$M = 3.13$, $SD = 2.58$; $t(45) = -3.87$, $p = .001$]. The magnitude of the difference in the means would have remained large (eta squared = .26). This suggests, in addition to the missing final exam scores, that other factors were negatively influencing online student outcomes. This finding, and the findings that follow, are troubling in that they counter research which has linked college success course enrollment with positive student outcomes (Ben-Avie et al., 2012; Boudreau & Kromrey, 1994; Cho & Karp, 2013; Pascarella & Terrenzini, 2005; Schnell et al., 2003; Zeidenberg et al., 2007). Identifying the factors that are adversely affecting online student outcomes is essential if the efficacy of online college success courses is to be established.

Term grade point average. The term grade point average (GPA) is defined as the average of a student's grade points earned during a specified semester. The term GPA is based on the following grade point scale: A = 4.0, A- = 3.7, B+ = 3.5, B = 3.0, B- = 2.7, C+ = 2.5, C = 2.0, D = 1.0, F = 0. All credit and credit-equivalent courses are included in the calculation of the term GPA. An examination of the term GPA by

delivery method is presented in Table 13. The mean term GPA of online students was 1.18 points lower than that of on-ground students. While the highest term GPA (4.0) was attributed to an on-ground student, the lowest term GPA (0.00) was associated with two of the online students who did not take the final exam and failed the course. Only 42.9% of the online students earned a term GPA of 2.0 or higher as compared to 90.3% of the on-ground students.

Table 13

Term Grade Point Average

	Online Students (<i>n</i> =21)	On-Ground Students (<i>n</i> =31)
Mean	1.71	2.89
Minimum	0.0	1.77
Maximum	3.30	4.0

I conducted an Independent-Samples t-Test to compare the mean term GPAs of the online and on-ground students and found a significant difference between the online students ($M = 1.71$, $SD = 1.11$) and the on-ground students [$M = 2.89$, $SD = .66$; $t(50) = 4.38$, $p = 0.00$]. The magnitude in the difference of the means was large (eta squared = .28). Had the five students who did not take the final exam been excluded from the term GPA calculations, the mean term GPA of the online students would have increased to 2.0, less than one point lower than the mean term GPA of the on-ground students. Even so, this would not have negated the statistically significant difference between the mean

term GPA of the online students ($M = 2.01$, $SD = 1.02$) and the on-ground students [$M = 2.89$, $SD = .66$; $t(45) = 3.14$, $p = .005$]. The magnitude of the difference in the means would have remained large (eta squared = .18).

Based on students' term GPA and final course grades, success, as defined in this study, required students to complete the fall semester with a 2.0 term GPA and a minimum final grade of C in the college success course. Table 14 summarizes the success of the online and on-ground students.

Table 14

Success Data

	Online ($n = 21$)	On-Ground ($n = 31$)
Successful	6	26
Unsuccessful	15	5

I used a Chi-Square Test of Independence to compare the success of online and on-ground students. A significant relationship was found $X^2(1, N = 52) = 13.92$, $p = <.001$. On-ground students were more likely to meet the definition of success (83.9%) than were online students (28.6%). As illustrated in Figure 2, of the 15 online students who did not meet the definition of success, 11 earned a D or F and had a term GPA below 2.0. Among this group were the five students who did not take the final exam. Of the remaining four students who were not successful, three had a term GPA of at least 2.0 but earned a D or F in the course, and one student earned a C in the course, but did not meet the term GPA requirement. Although none of the on-ground students failed the course, of

the five students in that group who were not successful, two met the term GPA requirement but earned a D in the course and three earned at least a C in the course but did not meet the term GPA requirement. Had the five online students who did not take the final exam been excluded from the calculations, the percentage of online students who met the definition of success would have increased to 37.5%. Even so, this would not have had an appreciable effect on the results of the Chi-Square Test of Independence. A significant relationship would still have been found $X^2(1, N = 47) = 8.42, p = .004$, suggesting that other factors besides the missing final exam grades were contributing to the weaker academic performance of the online students.

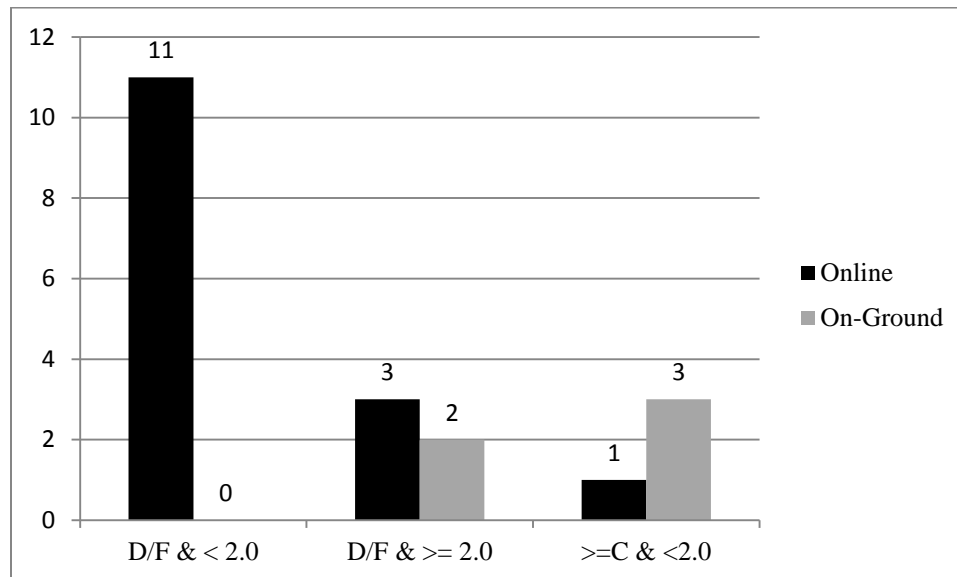


Figure 2. Unsuccessful Students' Grade and Term GPA.

In addition to analyzing the academic outcomes of online students, studies of online learning consistently highlight the persistence and withdrawal challenges that

plague online courses (Jaggars, 2011; Jaggars & Bailey, 2010; Jaggars & Xu, 2010; Xu & Jaggars, 2011). Using a Chi-Square Test of Independence, I compared the overall withdrawal rates of online and on-ground students. Consistent with the research, a significant relationship was found $X^2(1, N = 90) = 4.52, p = .03$. Online students withdrew from the college success course at a higher rate (25%) than on-ground students (6.5%). Additionally, this study examined the withdrawal activity of students who remained enrolled in the college success course to determine if differences existed between the two groups.

Withdrawal rates. The withdrawal rate, as defined in this study, pertains to the percentage of students who completed the college success course, but had withdrawn from one or more of their other courses during the fall 2014 semester. An analysis of the withdrawal activity of the sample found that one online student who had originally enrolled in an on-ground section of the course switched to an online section in the early weeks of the semester. As self-reported during her interview, this was due to transportation issues. Since this constituted an even switch transaction, I excluded her from the analysis. Only one of the students withdrew from two courses during the fall semester. All of the withdrawn courses were on-ground sections. None of the online students who skipped the final exam were among the students who withdrew from other classes. Table 15 provides a summary of the withdrawal data.

Table 15

Withdrawal Activity: Fall 2014

Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
-------------------------------------	--

No Withdrawals	16	29
----------------	----	----

Table 15 (continued)

	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
1 Withdrawal	4	2
2 Withdrawals	1	0

I used Fisher's Exact Test to compare the withdrawal activity of online and on-ground students. No significant difference in the withdrawal activity of the two groups was found ($p = .10$). Although there was no statistically significant difference, in terms of practical significance, it is important to recognize that online students withdrew from their other fall classes at a higher rate (23.8%) than their on-ground counterparts (6.5%). There may be several reasons for this difference in withdrawal activity. Online students may have decreased their on-ground course load to focus more attention on their online class. It may also have been a decision based on the convenience of the online class and their inability to travel to campus for an on-ground class. Irrespective of the reason, the increased withdrawal activity among the online students who remain enrolled in their college success course is consistent with what is known about withdrawal rates in online courses in general. Understanding why their withdrawal activity exceeded that of their on-ground peers can offer insights to the challenges online students face and point to ways in which their academic efforts can be supported.

Although students in the online college success course withdrew from their other fall classes at a higher rate than their on-ground counterparts, it did not have a detrimental effect on their subsequent semester enrollment. As the following finding shows, persistence rates among both groups of students were comparable.

Persistence rates. This study defined persistence rate as the percentage of college success course students who registered for classes in the subsequent (winter and/or spring) semester. Contrary to the prevailing research which has reported lower persistence rates for online students, the rate of persistence for both online and on-ground students was not significantly different (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Waschull, 2001; Xu & Jaggars, 2011). Table 16 summarizes the persistence data of the online and on-ground students.

Table 16

Persistence Activity: Fall 2014 to Spring 2015

	Online Students (<i>n</i> = 20)	On-Ground Students (<i>n</i> = 31)
Registered	16	24
Not Registered	4	7

Note. The sample size of the online students excludes one online student who voluntarily took the college success course in their final semester and successfully completed it, with no intention of registering in the subsequent semester.

I used Fisher's Exact Test to compare the persistence of online and on-ground students. No significant difference in the persistence of the two groups was found ($p = <$

.05). The persistence rate of online students was 80% as compared to a persistence rate of 77.4% for on-ground students. None of the online or on-ground students registered for winter session classes. Among the four online students who did not register for the subsequent semester were two of the five students who had not taken the final exam.

Figure 3 presents online and on-ground student persistence by enrollment status. Of the 16 online students who registered for the spring semester, 10 students (62.5%) were registered full time and six students (37.5%) were registered part time. Of the 24 on-ground students who registered for the spring semester, 19 students (79.2%) were registered full time and five students (20.8%) were registered part time.

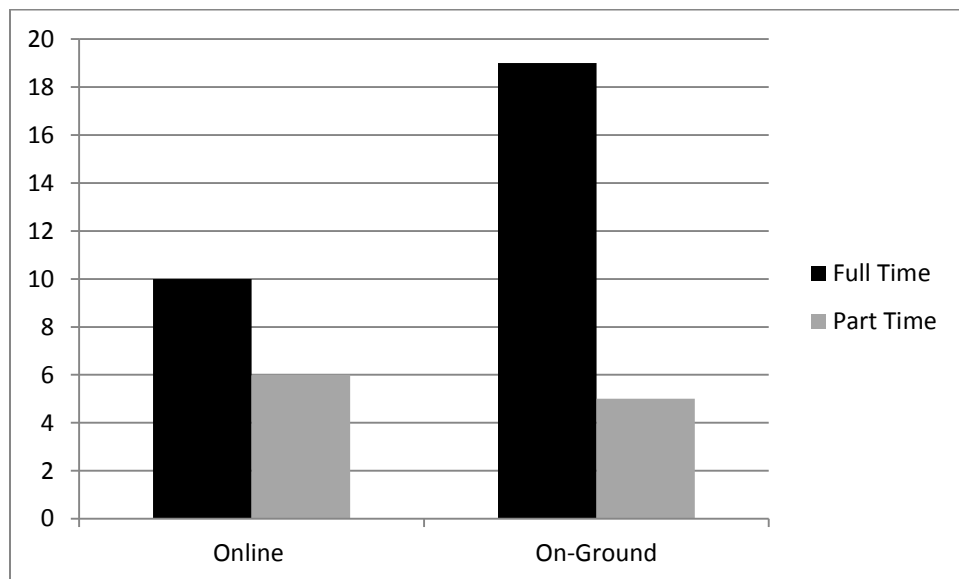


Figure 3. Spring 2015 Persistence by Enrollment Status

I used a Chi-Square Test of Independence to compare the enrollment status of the students who persisted to the spring semester. No significant difference among the two groups was found $X^2(1, N = 40) = 0.02, p = .25$.

At the start of the fall 2014 semester, of the 21 online participants in the study, 17 students (80.9%) were registered full time and four students (19.1%) were registered part time. Of the 31 on-ground participants, 24 students (77.4%) were registered full time and seven students (22.6%) were registered part time. The full time/part time enrollment percentages of the on-ground students remained fairly consistent from the fall to spring semester, but that was not the case for the online students. Of the 16 online students who persisted to the spring, 10 (62.5%) registered as full time students. When compared to the fall rate, this represented a decrease of 18.4 percentage points. The remaining six online students (37.5%) registered as part time students in spring, an increase of 18.4 percentage points when compared to the fall rate. Whereas both groups were fairly similar in the percentage of full time and part time enrollments at the start of the fall 2014 semester, there was a substantial drop in the number of online students who continued as full time students in the spring 2015 semester. There may be several explanations for the shift in online students' enrollment status. Online classes generally attract non-traditional students who have family and job responsibilities which make attending on-ground classes difficult (Aslanian, as cited in Xu & Jaggars, 2013; Pontes et al., 2010). These responsibilities can interfere with students' plans to attend school full time. Whether it stemmed from their academic performance, or a better understanding of the time commitment necessary to succeed in college, online students' initial optimism may have

been tempered by the reality of their first semester, causing them to adjust their spring schedules accordingly.

Summary of Quantitative Findings

Despite sharing similarly optimistic perceptions concerning course learning outcomes achievement, student outcomes were mixed. Academically, online students fared significantly worse than their on-ground peers in terms of final exam grades, overall course grades, and term GPA. A closer examination of the outcomes data found that five online students who had remained enrolled in the college success course did not take the final exam. This had a negative effect on the outcomes of the final exam grades.

Excluding the five students from the final exam grade calculations would have changed the results to no significant difference in the final exam grades between the two groups of students; however excluding them from the remaining analyses would not have changed the outcomes of the course grades or term GPA. In terms of retention outcomes, while the withdrawal rate among the two groups was not significantly different statistically, the rate for online students was 17.3 percentage points higher than the rate for on-ground students. Even so, persistence rates were not significantly different among the two groups of students. The percentage of online students who completed the college success course and registered for the spring semester was only 2.6 points lower than that of the on-ground students. However, a change in enrollment patterns was evident. More online students returned on a part time basis in the spring semester whereas the proportion of full time and part time on-ground students remained fairly constant.

As this study has shown, there is a wealth of quantitative data readily accessible to researchers, so it is not surprising that quantitative studies have dominated the literature related to online learning and college success courses (Blackner, 2000; Boudreau & Kromrey, 1994; Carpenter et al., 2004; Derby & Smith, 2004; Florida Department of Education, 2006; Jaggars, 2011; Schnell et al., 2003; Waschull, 2001). Student outcomes are important to examine, but as the findings of this study have demonstrated, they are complex and nuanced rather than straight forward and conclusive. In the technology-driven higher education environment of the twenty-first century, they are the starting point for a larger and more multi-faceted discussion about learning. Chatti et al. (2007) has described learning as an “action-oriented process and a social activity” (p. 408). Social constructivism, which provides the lens for this study, maintains that student learning occurs within a larger social milieu. To that end, the quantitative analysis of student outcomes serves as the foundation for a broader examination of the social aspects of the online and on-ground college success course and how student engagement may have influenced student outcomes in the course. The quantitative findings have established what is, but the qualitative findings can help to explain why. Discovering the themes that bring meaning to the quantitative findings is only possible when the voice of the student is heard.

Student Engagement

Student engagement is an amorphous concept, subject to infinite interpretations by researchers. As such, it can be difficult to quantify and define. For the purposes of this study, the definition of student engagement synthesizes key elements from Astin’s Theory of Student Involvement and Tinto’s Model of Student Departure. It is presented

as a two-fold concept comprised of the level of involvement students invest in the learning process and the nature of involvement that occurs as part of the learning process. Students' level of involvement represents the quantitative aspect of student engagement. It was measured by examining the amount of time and energy students devoted to the course, where energy was a construct measured by attendance records, login activity, and the frequency of students' participation and interactions with individuals and the course material. Data were gathered through student interviews and a review of on-ground student attendance records and online student tracking reports. The nature of involvement represents the qualitative aspect of student engagement. It was measured by examining the types of academic and social integration that took place as a result of students' interactions with their classmates, the instructor, other college personnel, and the course material. The data were compiled through student interviews and an analysis of the results of the Classroom Community Scale (CCS) and its Connectedness sub-scale. To ensure anonymity, pseudonyms were used in lieu of students' names throughout the study.

Level of involvement: on-ground students. The on-ground sections of the college success course met one evening per week for 14 weeks. Class sessions were 2 hours and 40 minutes in length. This equated to approximately 37 classroom hours over the course of the semester. A review of the instructors' attendance records found that on-ground students missed an average of 1.26 days of class. Therefore, the typical on-ground student spent approximately 36 hours in the college success course classroom. Figure 4 presents the breakdown of student absences, as a percentage of the on-ground cohort.

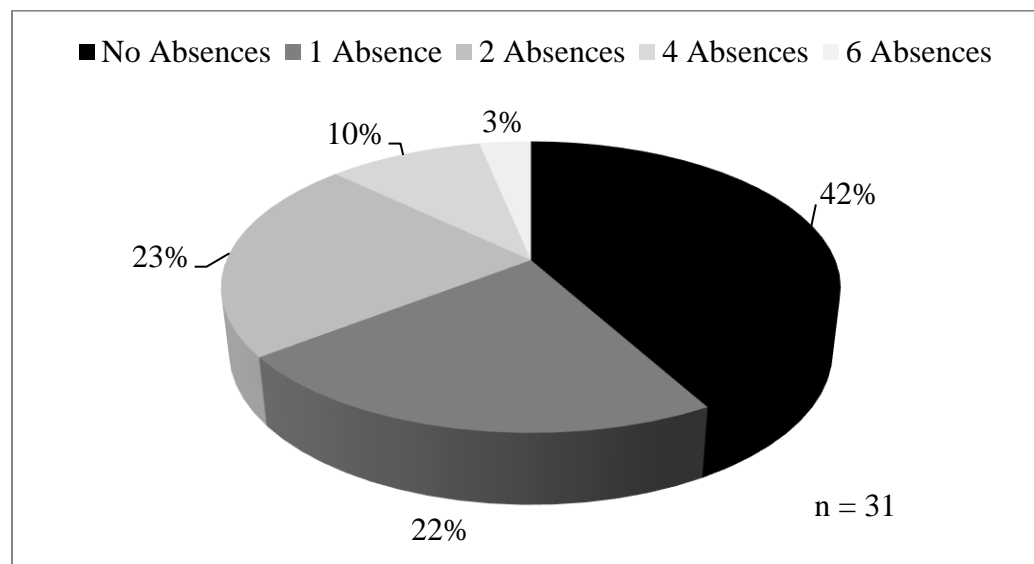


Figure 4. Fall 2014 College Success Course On-Ground Student Absences

Classroom attendance is an opportunity to engage with other students as well as the instructor, so fewer absences provided more opportunities for student involvement. In addition to their physical presence, students' participation was used to measure their level of involvement in the classroom. Most students (6) reported participating during every class session. Paul described himself as "very active," telling me, "I'll raise my hand if I don't understand or give any input he wants from students. I'll be one of the first to raise my hand and give him input." Similarly, Miguel told me that he participated two to three times during each class, "but not for every question." Sharon was less definitive in her response, telling me, "Some days I participate well, some days I don't think I participate enough. I think it just depends on the mood, sometimes."

Lilly and Carmela described their class participation in transformative terms. Lilly told me, "I'm quiet, so I don't like to participate a lot, but I do have to sometimes go

in front and she does have me talk to the class, for teaching, so I have. I guess I've opened up a little bit." Likewise, Carmela said, "I never used to say a word, but towards the middle I started participating a lot because the teacher gave me a little bit of confidence. It made me boost my confidence because I'm really a shy student, so my participation is okay now."

While the level and frequency may have varied among students, it is evident that the on-ground course fostered active participation. Most importantly, it provided a safe and supportive environment in which students like Lilly and Carmela were able to overcome timidity and find the self-assurance needed to develop their public speaking abilities, an essential skill for all students.

When I asked them how much time they spent on course-related work outside of the classroom, students' responses were wide-ranging. Fatima and Ellen reported spending 30 minutes a week on coursework. Their respective final grades in the course were B- and A. Lily, who earned a B-, said that she spent an hour a week on homework in the early part of the semester, but toward the end, was only spending 15 to 20 minutes a week on homework. Debra, Carmela, and Miguel estimated that they spent between two and three hours on coursework each week. Debra explaining, "...her assignments [are] open book but she has a lot of high expectations, so it's a good idea to spend a little time every day." Debra and Carmela earned a B in the course and Miguel earned an A. Paul and Sharon said they spent between one and two hours a week on coursework. Paul admitting, "I probably put in just as much as I need to ...the work is usually easy for me..." In the end, Paul earned an A in the course and Sharon earned a B.

Extrapolating the weekly time these students reported spending on the course over the full semester, on-ground students spent between seven and 42 hours outside of class on course related work. When the estimated 36 hours of in-class time were added to the time spent outside of class on course-related work, on-ground students devoted between 43 and 78 hours to the course during the semester.

Level of involvement: online students. In lieu of attendance records, the student tracking feature of the learning management system (LMS) was used to measure online students' level of involvement in the college success course. The LMS is comprised of 10 tools: Announcements, Bookmarks, Chat Room, Message Board, My Assessments, My Assignments, My Course Content, My Grades, My Journal, and Shared Files. Each tool provides instructors and students with the means for managing and viewing course content, accessing course resources, responding to members of the class, and completing assignments, tests, and quizzes. Tracking reports record the number of mouse clicks, total time, and number of sessions, per tool, for each student and the entire class. I used the tracking reports to quantify students' level of involvement. The chat room tool was not utilized by either instructor and therefore does not appear in any of the following LMS data. Tables 17, 18, and 19 summarize, respectively, the semester averages for the number of hours students spent using each tool, the number of times students accessed a tool, and the number of mouse clicks per tool.

Table 17

Fall 2014 LMS Activity: Average Hours per Tool

	Announcements	Bookmarks	Message Board	My Assessments	My Assignments	My Course Content	My Grades	My Journal	Shared Files
Mean	3	0	74	3	37	73	3	10	0
Minimum	0	0	0	0	0	0	0	0	0
Maximum	0	0	486	6	230	539	25	155	0

Note. Averages are rounded to the nearest hour and are based on 21 students. Users are logged out of the system after 30 minutes of inactivity.

Students spent most of their time using the “My Course Content” and “Message Board” tools, an average of 73 and 74 hours respectively. This was followed by an average of 37 hours in the “My Assignments” tool. “My Journal” was used an average of 10 hours. Time spent using the “Announcements,” “My Assessments,” and “My Grades” tools averaged three hours. Students averaged less than one hour using the “Bookmarks” and “Shared Files” tools. Overall, students spent an average of 203 hours logged into the college success course over the duration of the semester.

Table 18

Fall 2014 LMS Activity: Average Number of Sessions per Tool

	Announcements	Bookmarks	Message Board	My Assessments	My Assignments	My Course Content	My Grades	My Journal	Shared Files
Mean	25	1	104	329	59	98	19	27	30
Minimum	0	0	5	12	2	0	0	1	1
Maximum	22	6	318	753	161	454	74	73	88

Note. Averages are based on 21 students.

“My Assessments” was the most accessed tool, averaging the highest number of sessions (329), more than three times that of “Message Board,” which was the second most accessed tool. “My Course Content” was the third most accessed tool, followed by “My Assignments.” Overall, students accessed the various tools an average of 692 times during the semester. The number of sessions per tool does not represent discrete log ins to the LMS, but rather the number of times a student accessed a particular tool over the course of the semester. Multiple sessions could have occurred during a single log in to the LMS. For example, after logging into the system, a student could have moved back

and forth among various tools, accessing them several times during one login. Each time the tool was accessed would have registered as a session.

Table 19

Fall 2014 LMS Activity: Average Number of Mouse Clicks per Tool

	Announcements	Bookmarks	Message Board	My Assessments	My Assignments	My Course Content	My Grades	My Journal	Shared Files
Mean	37	1	296	549	109	114	19	59	34
Minimum	0	0	6	117	3	0	0	4	1
Maximum	116	7	702	938	282	559	74	166	101

Note. Averages are based on 21 students.

The three most accessed tools also averaged the highest number of mouse clicks. They were: “My Assessments” (549), “Message Board,” (296), and “My Course Content” (114).

Figure 5 juxtaposes the average number of hours, sessions, and mouse clicks, per tool, over the course of the semester.

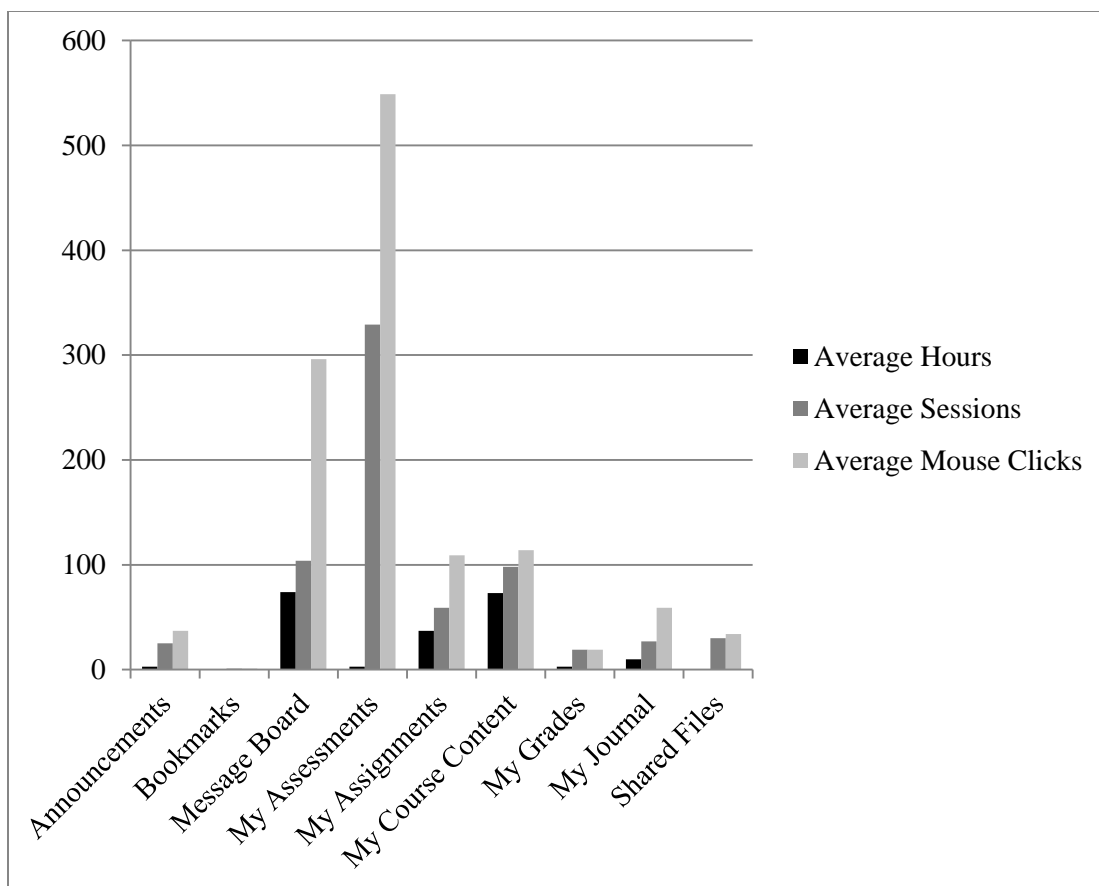


Figure 5. Average Hours, Sessions, and Mouse Clicks per Tool

. The average number of sessions exceeded the average number of hours for each tool. In other words, average sessions for each tool were less than one hour in duration.

The average number of mouse clicks was equal to or slightly higher than the average number of sessions for all but two tools. The average number of mouse clicks for the “Message Board” was nearly three times the average number of sessions while the average number of mouse clicks for the “My Assessments” tool exceeded the average number of sessions by 220. This would be expected given the function of these tools. The interactive nature of the message board required students to select and respond to

multiple posts. The eight quizzes and the final exam were administered online in “My Assessments” and were comprised of multiple choice questions, requiring repeated mouse clicks to complete.

The juxtaposition of the data in Chart 4 highlighted a disparity that warranted further examination. The “My Assessments” tool was accessed the most, on average over 300 times, yet students only spent approximately three hours in the tool during the entire semester. This equated to less than one minute per session. This did not accurately reflect how students spent their time using the tool since the required quizzes and final exam were completed within the “My Assessments” tool. Had students only been able to check upcoming assessments and due dates using the tool, that may have explained the inordinate number of times that students accessed the “My Assessments” tool. However this was not the case. Assessment information was also posted in multiple locations within the LMS. Another possible explanation that was ruled out was the potential for students to log in and out of an assessment to look up answers. Instructors verified that once a student opened a quiz or exam, it had to be completed during that session. The LMS did not allow students to exit and re-enter a partially completed assessment. To examine this inconsistency more closely, I reviewed the individual tracking reports and found that students spent an average of 41 minutes completing the final exam and an average of 13 minutes on each of the eight quizzes. When added together, the cumulative average was nearly two and one half hours which more closely aligned with the average number of hours reported in the aggregate data. In the end, after consultation with the institution’s Instructional Designer and Information Technology Department, I was

unable to determine the specific reason for the disproportionate number of sessions. This anomaly notwithstanding, the data concerning the other tools proved more realistic.

Average sessions for the second most accessed tool, “Message Board,” lasted approximately 43 minutes. “My Course Content” sessions averaged 45 minutes in duration. Students spent approximately 37 minutes per session in “My Assignments.” “My Journal” sessions were about 22 minutes in length.

Based on the cumulative average number of hours (203) and sessions (692), over the duration of the semester a typical online student accessed the various course tools 49 times per week and spent nearly 15 hours online each week, with each session lasting approximately 18 minutes.

However, as the disparity in the “My Assessments” numbers reveals, there is a danger in relying solely on LMS analytics to examine online student activity. While the tracking reports could quantify the online student experience, they could not qualify how the students spent their time online. This was particularly evident when the study’s outliers were examined. The outliers were comprised of three students who collectively exhibited minimal or excessive online activity. None of the outliers were successful in the course. The student with the lowest recorded number of mouse clicks, hours, and sessions, was also one of the five students who did not take the final exam and failed the course. The student with the highest number of sessions and mouse clicks also failed the course, as did the student with the highest number of recorded hours. Figure 6 displays the outliers’ range of online activity for the three measures captured in the tracking report.

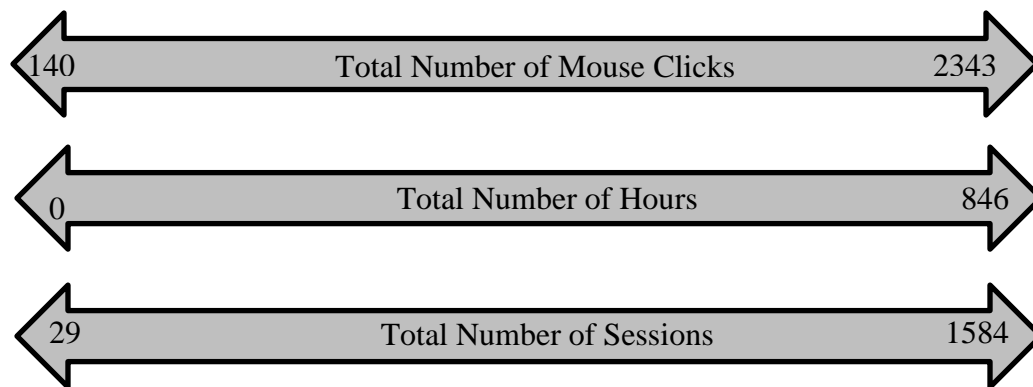


Figure 6. Outliers' Range of Online Activity

By comparison, the two students who earned an A in the course spent, respectively, 41 and 43 hours online, accessed the tools 1,073 and 1,066 times, and recorded 1,332 and 1,888 mouse clicks. As these examples show, quantity did not necessarily equate to quality. Excessive sessions or hours spent online could be attributed to student confusion, frustration, procrastination, or distraction rather than to engagement and success. For this reason, student interviews played an important role in providing the stories behind the data.

In asking the students to describe their last online session, nearly all of them (5) told me that they used some of the time to read and respond to message board posts. Since interviews were conducted during the last week of the semester, all of the students spoke about the various assignments that were due. Denise finished the research paper and PowerPoint presentation. Sofia took a chapter quiz, while Daniela and Angela completed the final exam. Sheila read an article about studying for tests and exams. All of the students (6) were focused on completing any outstanding work. Margaret's remarks summed it up best:

[The instructor] has quite a bit of assignments up there for us to do, so I've been on that doing the message board. I'm taking a quiz online. I have read an article online. I also watched an article they provide for the chapter. It's a lot of stuff this week.

When asked how much time they had put into the course on a weekly basis, both online and offline, students' responses varied. At the high end of the range, Margaret and Denise reported spending up to 15 hours each week on the college success course. Margaret told me, "I actually take two classes and [the online course] takes up most of my time." Sofia said that she devoted eight hours a week to the course, admitting "I do what we're assigned to do online; nothing more." Daniela and Angela spent less time, between two and four hours a week, on the course. At the low end of the range, Sheila said she put 45 minutes a week into the course, telling me, "I get kind of frustrated when I can't understand something. It really bothers me and I will shut down." Final exam analysis subsequently revealed that Sheila was one of the five online students who did not take the final exam. Contrary to her assertion that she spent 45 minutes a week on the course, the tracking report showed that Sheila spent a total of 227 hours in the course and accessed the tools 576 times during the semester. This equated to an average of 16 hours and 41 sessions each week. In this case, the phrase "shut down" had both cognitive and technical implications. Sheila said that she "shut down" when faced with material that she did not comprehend. Based on the tracking report data, it is likely that she may have "shut down" cognitively, but not in the technical sense, leaving the computer on and inflating the amount of time spent in the course.

The 15 hours per week that Margaret and Denise reported devoting to the course included approximately three hours online, as recorded in the student tracking report, and 12 hours offline. This was likely representative of the typical online student. Both students did well in the course. Margaret earned an A while Denise earned a B+. By contrast Sheila, who reported spending the least amount of time on the course, earned a failing grade. Sofia, who told me that she devoted eight hours a week to the course, earned a D. Daniela, who reported dedicating two hours each week to the course, and Angela, who reported spending four hours on the course, earned grades of D and B+ respectively. Not only did the amount of time online students reported spending weekly on the course vary widely, so did their final grades. Over the duration of the semester, computer tracking showed that the typical online student devoted approximately 210 hours to the course or an average of 15 hours each week. While computer tracking reports can quantify the time students spent online, it is important to remember that these reports cannot quantify the time students spent engaged in the online course itself. As stated previously, student interviews provided the narrative behind the numbers.

Nature of involvement: student to student interaction. During my interviews with the eight on-ground and six online students, I asked them to describe their interactions with fellow students as it related to the college success course. All (14) of the students I interviewed reported some form of academic interaction with their peers in the college success course.

On-ground students reported interacting with their classmates at every session. As Paul observed, “That’s what the class is designed for. To get you more comfortable talking to people that you don’t know.” In addition to the expected academic dialogue

that occurred as part of the course itself, all of the on-ground students described additional interactions that took place before class started or at the end. These conversations were predominantly course-related and included topics such as homework, assignment due dates, and group projects. When I asked with whom they interacted and why, six of the eight on-ground students referenced specific classmates. Sharon spoke about interacting with only one girl in class, describing her as “Really helpful and not anti-social. I have her in another class as well, so we can just relate to each other.” Carmela told me that her interactions were limited to three or four students, noting “They’re only girls. They’re friendlier and the guys are more or less quiet.” By contrast, Fatima told me “I don’t talk to just one person; I’m not friends with one person.” Likewise, Miguel, who described himself as “pretty social,” said, “I talk to anybody.” Two of the students discussed interactions with their peers that took place outside of the classroom, in conjunction with a group project. While Miguel met weekly in the library with the members of his group and used text messaging to keep in touch between meetings, the experience of his classmate Debra was very different. She recounted:

It’s difficult because if you’re not really into the whole project and you’re not motivated to just meet your group, people tend to find an easy way out, so we just set up a Google Doc. It allows all of us to edit our PowerPoint from home rather than meeting in person.

However students’ purposeful integration of technology into the on-ground course was not without its drawbacks. As Debra admitted, “Even with the Google Docs they’re not really motivated because it’s more online whereas if you were in person you would strive to do better.” Debra’s comments are a reminder that college success courses are

not without their challenges. While most research has reported on the academic and social benefits of the course, studies have also been conducted which have found no connection between the course and students' academic outcomes or social integration (Clarke & Cundiff, 2011; Strayhorn, 2009).

Despite the use of technology in the course, or perhaps in response to the challenges it presented, the classroom remained the primary setting for intellectual interactions among the on-ground students. For online students however, intellectual interactions occurred through the message board. In describing the online environment Sofia told me:

I feel like since it is an online course it's not necessarily a classroom setting where you actually get to physically interact and see the person you're talking to so it's kind of cool to get to know somebody in the course. You kind of want to have understanding and make it seem like it still is a classroom setting through online.

Like their on-ground counterparts, when I asked with whom they interacted and why, five of the six online students referred to specific classmates. Sofia identified three students that she interacted with more, telling me "I comment on their posts a lot just because they do seem to be interested and they have good message boards and their posts are very interesting." Angela's response was similar. She said:

I interacted with everybody online that would respond back to the message board because it was easier with the ones that understood the material than the ones that didn't understand the material because then it felt like I would have to explain it to them.

Sheila limited her online interactions to one student because they shared an interest in the same major. Likewise, Denise said she primarily interacted with one student because they had both attended the same high school. Unlike the on-ground students however, none of the online students' interactions took place in person or outside of the message board.

Social interaction among the on-ground students was generally perfunctory in nature, lacking in scope and depth. Paul and Miguel were in different sections, but each described chatting with classmates about topics like sports and music either before the start of class or after it ended. Miguel told me that he had been invited to "hang out" with classmates, but was unable to because they did not live nearby. Instead, he expected to stay socially connected to them through text messaging once the semester ended. While Paul described talking with "some of the guys" in his class, he then qualified his statement telling me, "I don't really talk to too many people at the school. I just try to go, do my work, and go home." Similarly, Ellen told me, "I really only interact with the people around me. Because it's a night class everyone's kind of down in the dirt...not really into class and whatever, so my interaction with students is not that much." Only two students, Lily and Debra, reported a meaningful social connection that extended beyond the classroom. In separate interviews, both described how their friendship developed after their instructor partnered them for an icebreaker activity during the initial class. Lily told me, "The first day of class, we became good friends. We hang out right before class every Thursday." Debra recalled:

I feel like we kind of just had a connection from the first day of class...Outside of class it's more of just getting to know each other, telling each other stories about

life or what did you do over the weekend... We do occasionally talk about the work we have in [class]. If there's a project that's due I would ask her and we would go over it together. We usually meet in person every Thursday before we have [class] and we go out to lunch. We also interact with each other through text.

Unlike the on-ground students, none of the online students reported any form of social interaction with their classmates, either virtually or in person. Angela summed it up best, telling me:

This is my first time taking an online class and I thought it was really, really different than when I'm actually in school because in school I made a friend in my English class and we just met and we exchanged emails in case we needed to read each other's essays or we needed to help each other. Then we exchanged phone numbers and then we became really good friends. I felt like that was a better bond than actually online because people just came online just to do their homework and just to reply back because of the fact that we had to reply back, not because we wanted to give somebody an extra hand or extra help or anything like that.

Nature of involvement: student and instructor interaction. When I asked the students to describe their interactions with the instructor of the course, all (14) online and on-ground students discussed some form of academic interaction with their instructor.

Fatima, an on-ground student, described student-instructor dynamics in this way: [The instructor] shows us videos and asks us what are we thinking about and what did we learn from it and then everyone just interacts with him and they raise their

hand. We're all talking and if there's something funny, we all laugh. It's real awkward when you have other classes and it's just quiet. It's not like that, it's active.

In addition to the expected dialogue that takes place in the classroom, seven of the on-ground students reported interacting with their instructors outside of class on course-related matters such as requesting feedback on writing assignments, making up missed work, clarifying assignment due dates, and obtaining help with spring scheduling. While one student told me that she visited her instructor's office weekly for help, the rest of the students told me that they communicated primarily through email and, on occasion, either just before or after class. In describing her interactions with her instructor, Carmela said:

She's told me to call her whenever I need extra help, but I really don't because I barely have time, so I just email her, that's it. Sometimes after class when everyone leaves, she stays there for a while and I ask her questions and for a little bit of help.

Similarly, Miguel said, "...when I email her it's just course-related...Sometimes it will be in class if I didn't get a chance to email her." Ellen told me, "...if I really have a question I'll email him, but I don't usually see him and I don't usually talk outside class." Likewise, Debra recounted, "I don't really have a relationship with [the instructor]. It's just through email. If I have questions, I would just email her. I've never really had one-on-one time..." In general, most of the on-ground students cited clearly articulated assignments and regular email notifications from their instructors which minimized the need for in-person interactions outside of the classroom. Nearly all

of the on-ground interviewees (7) reported using email as their primary method of communication with the instructor.

Depending upon the nature of their inquiry, online students' interactions with their instructors took place either through email, the message board, or the "My Journal" course tool. Students used the public forum of the message board to respond to their instructors' posts and to pose general questions about the course. The "My Journal" tool enabled students to communicate privately and asynchronously with the instructor within the framework of the course. It was used interchangeably with email when their questions or requests were of a more personal nature. In general, the interactions of the online students and their instructors were similar to those of the on-ground students in that they contacted the instructors through email to clarify assignment requirements and to obtain feedback on their work. However, there were some differences among the two groups of students. While half of the online interviewees (3) said that they contacted their instructors to discuss their grades, the topic of grades was never mentioned by any of the on-ground interviewees. Additionally, Sheila and Angela reported contacting their instructors for technical assistance when they were unable to submit their assignments online. Sheila, who had expressed frustration with the online course, met her instructor in person and interacted with her through email every other day. She described her as someone who had been "very, very good to me." On the other hand, Angela expressed disappointment with her online instructor. She told me:

I interact more with my actual professors on campus than with her...It's really hard because we're not on at the same time. She would be on at a certain time

and then I would be on at a certain time and we just collided. It didn't really work out much for me.

Sofia, who reported emailing her instructor twice a week, described her as “very responsive” and “very prompt,”

Although course-related interactions with the instructor were evident among both delivery methods, social interaction in both the on-ground and online sections of the course was limited. Paul, a student in one of the on-ground sections, described talking with the instructor at the end of class, telling me “If we finish our work early, we'll talk about whatever is going on at the time, how our weekend was. He's an Eagles fan; I'm an Eagles fan, so we talk about football sometimes.” Paul's classmate, Ellen, said:

In the beginning of class he'll ask how everyone is, how was [our] week since we only meet once a week. He involves us with his life and then during class if there's a discussion and something about life relates to it, he'll put in his input. I like that because he doesn't just talk about class, he talks about life too.

Sofia, an online student, made a similar comment about her instructor, observing “I've noticed when she posts in the message board or when a student posts to the message board and we have topics that we have to bring our personal lives into, she'll give you advice and be very supportive.”

While a small number of students (3) recognized and appreciated the personal touch that their instructors brought to the course, overwhelmingly, students' interactions with their instructors were focused on academic matters concerning the course. They were pragmatic in the sense that students spoke about confirming due dates, obtaining

grade information, seeking feedback on assignments, and asking for technical help with the course.

Nature of involvement: student and college personnel interaction. The college success course curriculum integrates activities and assignments that provide students with intentional opportunities to interact with a variety of offices on campus. This occurs in on-ground sections when classes are held in the Library, the Counseling and Career Services Department, or the Academic Advising Center and are facilitated by representatives from the respective departments. Similar opportunities are embedded in the online sections of the course. In addition to access to an online librarian for research-related questions, the completion of certain assignments requires online students to seek assistance from various departments on campus. Extra credit incentives are also provided as a way to expand online students' use of campus resources.

Since these activities are built into the college success course curriculum, I asked students to describe their interactions with college personnel, other than the instructor, in relation to the college success course.

When I posed the question, only four of the 14 students responded without hesitation. Carmela, an on-ground student, described meeting with an advisor during a class session. Margaret, an online student who was taking the course in her last semester, told me:

I've been to an advisor recently based on a project where you had to go to speak to someone within the school and figure out where I was going with these college degrees and find out where I can take my credits...

Denise, an online student, was part of the state-funded Educational Opportunity Fund (EOF). She told me that she met with her EOF counselor every two weeks and attended EOF sponsored workshops on campus which presented topics similar to those covered in the college success course. Angela, an online student, described a library visit during which a “really helpful” librarian showed her how to use the databases.

In response to the question, the remaining 10 interviewees initially told me that they had not interacted with any other college personnel. “I didn’t interact with anybody” was the common response from both online and on-ground students. Only after asking a follow up question did these students recall their interactions with other campus offices.

Four of the on-ground students discussed speaking with a librarian, either during a class session or individually, for assistance with the research assignment. Fatima recounted, “[The librarian] told me where to find articles specifically and she really managed my time. Without her I would be searching everywhere and not finding the right results or topics.” All but one of the on-ground students described working with an advisor during a class session to select spring courses. Ellen said, “We went as a class...and we picked our classes for next semester together and that was a big help for me since it’s my first year.”

Online students were more apt to describe interactions with campus personnel that were less than positive. In recalling her visit to the library, Sofia told me “I went in to the library and I asked another librarian about the online librarian, if she was in, and unfortunately she wasn’t in so I didn’t get to further that communication with her.” Likewise, Sheila’s visit to the library was not productive. As she explained it:

...being the type of person I am, I went there and got my information that I needed, but then I didn't know how to do the PowerPoint and I didn't want to keep going back up there and ask for the librarian...I didn't want to keep asking her how to do [it] because I had never done a PowerPoint before and I didn't want to let her know that I had a reading comprehension situation...I have to be honest, I was scared to ask for help.

Daniela's visit to the Academic Advising Center was also unsatisfactory, telling me:

...I just had more questions but they weren't very clear about my questions. I forgot honestly what the questions were, but they weren't very clear. I asked them, can you please help me? They just said no--they didn't say no--but they basically [said] resolve it yourself. I wasn't happy with that, so I just found another classmate and my cousin, because he's in that school too, and he just helped me find my way.

Sheila and Daniela's comments were particularly disconcerting given that students enrolled in first year courses typically report increased out-of-class engagement, knowledge of college policies, and confidence in their academic skills (Fralick, 2008; Friedman & Marsh, 2009). This was not the case for either of these students. Unlike Lilly and Carmela, who were able to develop and practice their public speaking skills in the encouraging and safe environment of their on-ground college success course, Sheila and Daniela did not have a classroom setting in which to develop and practice their self-

advocacy skills or the physical presence of an instructor to model these skills and encourage their use. This compromised their ability to effectively navigate the resources that were available to help them, diminishing the benefits of the college success course.

Online and on-ground students' interactions with college personnel were alike in that they all took place in person, were academic in nature and, with the exception of the EOF student who met regularly with her counselor, were one-time encounters. Similarities notwithstanding, it is important to note that while all of the on-ground students reported positive experiences, half of the online students (3) reported unsatisfactory interactions with college personnel.

Despite the variety of interactions reported by the students, the connectedness subscale results of the CCS did not indicate any appreciable difference between the online and on-ground students' feelings of cohesion, spirit, trust, and interdependence in the course. The CCS was completed by 41 of the 52 students in the sample. Sub-scale scores range from 0 to 40. An analysis of the connectedness sub-scale scores found that the mean scores of the online and on-ground students were nearly identical. There was no significant difference in the connectedness sub-scale scores between the two groups of students. The results are presented in table 20 below.

Table 20

Classroom Community Scale (CCS): Connectedness Sub-Scale Scores

	Online Students (<i>n</i> = 13)	On-Ground Students (<i>n</i> = 28)
Mean	23.23	22.82

Table 20 (continued)

	Online Students (<i>n</i> = 13)	On-Ground Students (<i>n</i> = 28)
Minimum	11	17
Maximum	31	36

I conducted an independent-samples *t* Test to compare the Connectedness sub-scale scores of the online and on-ground students. There was no significant difference in the Connectedness sub-scale scores of the online students ($M = 23.23$, $SD = 7.10$) and the on-ground students [$M = 22.82$, $SD = 3.97$; $t(15.60) = -.19$, $p = .85$]. The magnitude of the difference in the means was small (eta squared = .0001).

Likewise, when the cumulative results of the CCS were reviewed and students' sense of community was considered holistically, the difference in scores, which range from 0 to 80, remained small. While on-ground students' overall score was nearly four points higher than that of the online students, there was no significant difference among the two groups of students. The results are presented in table 21.

Table 21

Classroom Community Scale (CCS): Overall Scores

	Online Students (<i>n</i> = 13)	On-Ground Students (<i>n</i> = 28)
Mean	47.38	50.71
Minimum	29	40

Table 21 (continued)

	Online Students (<i>n</i> = 13)	On-Ground Students (<i>n</i> = 28)
Maximum	67	68

I conducted an independent-samples *t* Test to compare the overall CCS scores of the online and on-ground students. There was no significant difference in the overall CCS scores of the online students ($M = 47.38$, $SD = 12.41$) and the on-ground students [$M = 50.71$, $SD = 6.27$; $t(14.91) = .92$, $p = .38$]. The magnitude of the difference in the means was small (eta squared = .02).

These results were not surprising in light of students' responses to my culminating interview question. When I asked with whom they had made connections that would continue once the course had ended, 12 of the 14 students specified one or more individuals. Nine students referenced their instructor, five students referenced classmates, and one student referenced an advisor and librarian. Only two students (one online and one on-ground) told me that they had made no connections as a result of their enrollment in the course. While the nature of involvement in the course differed among the two groups, both online and on-ground students indicated that they had connected with either the instructor, each other or, to a lesser extent, college personnel. These connections transcended student outcomes and were reported by students who excelled in the course as well as those who did poorly. What cannot be determined is the extent of their respective connections and whether they were sustained once the semester had ended.

Student Engagement's Influence on Student Outcomes

This study was conducted in order to understand the experience of students in the online and on-ground sections of the college success course in terms of their engagement with the course and how that engagement, as measured by the level and nature of their involvement with the course, may have influenced student outcomes. To that end, the following overarching question was addressed: What were the outcomes among students in the online and on-ground sections of the college success course and how did engagement influence those outcomes?

While online and on-ground students were similarly optimistic in their ability to achieve the course learning outcomes, on-ground students out-performed online students in terms of final exam scores, term grade point averages, and overall course grades. In the end, the percentage of on-ground students who met the definition of success, with a term GPA of at least 2.0 and a minimum final grade of C in the course, was nearly three times that of the online students. However, the withdrawal and persistence rates of the students who remained enrolled in the college success course were not statistically significantly different despite the disparity in academic outcomes among the two groups of students.

The level of involvement and student outcomes. The level of involvement in the course varied widely among the two groups of students. Based on attendance records and students' self-reports, on-ground students spent approximately three to six hours a week on the course. This included approximately two and one half hours in the classroom, with the remainder of time spent on course-related activities outside of class. Students attended class regularly and reported actively participating during each class

session. In the end, of the 31 on-ground students in the study, 29 earned at least a C in the course. By contrast, the student tracking report found that online students averaged 15 hours per week in the course, three to five times that of their classroom-based peers. Even so, this did not result in comparable or higher academic outcomes. Only seven of the 21 online students earned at least a C in the course. In most cases, excessive sessions or hours online resulted in failure, rather than success. While an analysis of the number of sessions, hours spent online, and mouse clicks recorded through the computer tracking report found that students spent most of their time using the LMS's "Message Board" and "My Course Content tools, it could not explain the inverse relationship between online activity and course success. While the level of involvement could be quantified, based on the data collected, I was unable to discern whether inordinate sessions, mouse clicks, or hours online reflected active engagement, procrastination, distraction, or confusion. The total amount of time that online students self-reported spending on the course each week was wide-ranging, from 45 minutes to 15 hours, and, in most cases, did not consistently align with their respective hours as recorded in the tracking report.

Analysis of the information provided by attendance records, tracking reports, and students' self-reports, confirmed that online students devoted more time to the course than their on-ground peers but, as a group, were unable to achieve the same levels of success. Despite spending more time on the college success course, based on their academic outcomes, online students were less productive and, likely, less engaged than their on-ground counterparts.

Based on LMS data, classroom attendance records, and student interviews, Table 22 summarizes the average number of hours each group of students spent on the course.

Table 22

Level of Involvement: Average Hours Spent on the Course

Average Hours	Online Students (<i>n</i> = 21)	On-Ground Students (<i>n</i> = 31)
Weekly	15	3 - 6
Entire Semester	203	43 – 78

The nature of involvement and student outcomes. While the CCS results found that online and on-ground students shared a similar sense of community and connectedness in their respective college success courses, differences in the nature of involvement were evident among the two groups of students.

Both groups of students reported some form of academic interaction with their classmates, the instructor, and, to a lesser extent, college personnel. Whereas on-ground students interacted with their peers, the instructor and college personnel primarily in-person during class, online students used the LMS and its tools to interact with classmates and the instructor. Like their on-ground counterparts, online students' interactions with college personnel took place in person.

Social interactions were only reported by on-ground students and were limited to classmates and the instructor. Nearly all of the on-ground students described their social interactions in superficial terms, distinct from the academic interactions that took place with their classmates and instructor. Only two on-ground students, who had established a substantial personal connection with one another, described an integration of their

academic and social interactions that extended beyond the classroom and progressed as the semester moved forward.

On-ground students described all of their interactions in positive terms, but that was not the case for online students. Although interactions with their instructor and classmates were positive experiences, half of the online students I interviewed expressed dissatisfaction when describing their interactions with college personnel. While on-ground students' interactions with college personnel took place during class, because of the nature of the online course, online students' interactions with college personnel occurred outside the confines of the course. Without the context of the physical course as a source of support, less confident online students found themselves adrift. Unable to effectively navigate the myriad of college resources at their disposal, they struggled academically and were ultimately unsuccessful in the course.

Although the nature of involvement varied among online and on-ground students, social interactions proved to be inconsequential, with both groups overwhelmingly focused on academic interactions. While this did not ameliorate the outcomes disparity among the two groups, most of the online and on-ground students reported making lasting connections with individuals associated with the college success course. Whether it was their instructor, a classmate, or a college staff member, these connections were made irrespective of the students' outcomes and proved to be a positive outgrowth of the course.

Chapter 5

Conclusions and Recommendations

Introduction

For the last 40 years, college success courses have been a mainstay in the schedules of most first semester students, especially those students enrolled in developmental courses (Boudreau & Kromrey, 1994; Thelin, 2004). College success courses have played an important role in helping entering students transition to college by providing a supportive learning environment and the opportunity to connect with instructors, peers, campus personnel, and college resources. In the online learning environment of the twenty-first century, these courses, which have traditionally been offered in seminar formats, are finding their way to the internet. However this is not without concern. Recent studies of online learning have consistently reported higher withdrawal rates, lower persistence rates, weaker academic performance and lower levels of engagement among students in online courses in general (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). In light of the research, offering college success courses, which are designed to strengthen first semester students' academic skills, foster engagement and promote persistence, in an online format seems contradictory to the fundamental objectives of the course, possibly placing academically vulnerable students at an even greater disadvantage.

Purpose of the Study

In New Jersey, college success courses are offered primarily in traditional classroom settings. In 2012, of the state's 19 community colleges, only four offered fully online sections of their college success course. Growth in online delivery of college success courses has been slow; however the number of students taking online courses

continues to increase. Between fall 2013 and fall 2014, the unduplicated headcount of New Jersey community college students taking online courses increased by 3.65%, while the five year growth was 26.4% (New Jersey Council of County Colleges, Fall 2015). In order to meet the needs of this growing sector of community college students and guarantee them access to the same educational opportunities as on-ground students, online college success courses are a necessity. With that in mind, the purpose of this study was to understand the experience of students in online and on-ground sections of the college success course in terms of their engagement with the course, as measured by the level and nature of their involvement, and how that engagement may have influenced student outcomes. To that end, the following overarching question was addressed: What are the outcomes among students in the online and on-ground sections of the college success course and how did engagement influence those outcomes?

Value of the Study

There are limited numbers of studies on the effectiveness of college success courses at community colleges (Zeidenberg et al., 2007). Over the last 30 years, the majority of the studies of college success courses have focused on traditional students at four-year institutions, with the most commonly assessed outcomes being student retention, persistence, grade point average, and credit completion (Cuseo, n.d.; Mills, 2010; Pascarella & Terenzini, 2005; Swing, “First –Year Initiative (FYI) Overview,” 2002). Additionally, there have been few, if any, published studies on the efficacy of online college success courses at two-year institutions.

This study is of particular value to the community college sector in that it addresses the research gap on college success courses and contributes to the nascent

literature on online college success courses. Although outcomes such as student persistence, withdrawal rates, course grades, and term grade point averages have been analyzed in previous studies, their inclusion in this study provided the context necessary to examine the influence of online and on-ground student engagement, as defined by the level and nature of their involvement in the course. This was a unique feature of the study in that the parameters used to identify student engagement enabled me to define it in a way that allowed for quantitative and qualitative analysis of what is typically an amorphous concept. This produced an abundance of data that provided insights into the students' experiences in the online and on-ground sections of the course, as well as a more nuanced analysis of their outcomes.

Presentation of the Conclusions

This chapter will review the findings and data analysis that were presented in Chapter 4 and the ways in which they address the research questions. As the conclusions and recommendations will demonstrate, this study has affirmed the use of a mixed methods research design and the benefits of including qualitative data, along with the traditional quantitative data, in order to provide a more comprehensive response to the overarching research question.

My study culminates in five conclusions which add to the scant literature on online college success courses at two-year institution. I will explore the conclusions listed below, followed by recommendations for practitioners, administrators, and researchers who are interested in enhancing existing online college success courses or conducting further studies.

1. Academic engagement outpaced social engagement among both groups of students
2. Learning Management System (LMS) data are imperfect measures of online student engagement
3. Time and technology impacted students' approach to the course
4. Course abandonment occurred despite online students' apparent engagement
5. Online students articulated a disparity between perception and reality that was not evident with on-ground students

Research Questions and Related Findings

To address the overarching question, the following research questions were used to guide the study. They are presented below, with a brief summary of their related findings.

1. What are the outcomes among students in the online and on-ground sections of the college success course in terms of: final exam grades, overall course grades, self-assessment of course learning outcomes, persistence rates, withdrawal rates, and term GPA?

Although online and on-ground student self-assessments of course learning outcomes attainment were similarly positive, the actual outcomes were mixed. Academically, online students' final exam grades, overall course grades, and term GPA were significantly lower than those of their on-ground counterparts. Contributing to this were five online students, who remained actively enrolled in the course, but did not take the final exam. The withdrawal rate, as measured by the percentage of students who completed the college success course but withdrew from one or more of their other

courses during the fall 2014 semester, was not significantly different statistically between the online and on-ground students. Likewise, the rates at which the two groups of students persisted to the subsequent semester were not significantly different; however a difference in enrollment status was evident. While the ratio of full time and part time students among the on-ground group remained relatively unchanged, more online students returned on a part time basis in the spring 2015 semester. These quantitative data were detailed in Chapter 4.

2. What is the level of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the level of involvement influence student outcomes?
 - b. How does this differ by delivery method?

As seen in Chapter 4, there was a difference between online and on-ground students' level of involvement. Quantitatively, the amount of time and energy that each group devoted to the course varied. As a construct, energy was measured by attendance records, login activity, and the frequency of students' participation and interactions with individuals and the course material. Based on attendance records and student self-reports, on-ground students spent between three and six hours a week on the course. This included time in the classroom as well as time spent outside of class on course-related activities. In the end, 93.5% of the on-ground students earned at least a C in the course. By contrast, LMS tracking reports and student self-reports found that online students averaged 15 hours per week on the course. This included time spent logged into the class via the LMS and time spent working off-line on course-related activities. Even though this was three to five times more hours than their on-ground peers, it did not result in

higher or even comparable academic outcomes. Only 33.3% of the online students earned a minimum grade of C in the course. While the total amount of time on-ground students reported devoting to the course each week varied by no more than three hours, the weekly amount of time that online students reported spending on the course was inconsistent. It ranged from 45 minutes to 15 hours and generally did not align with the respective hours recorded in the tracking report. In most cases, excessive sessions or hours online resulted in failure, rather than success. Using the tracking report data collected, I was able to quantify online students' level of involvement, but I was unable to determine whether inordinate sessions, mouse clicks, or hours online reflected active engagement, procrastination, distraction, or confusion.

An examination of the quantitative and qualitative data concerning students' level of involvement confirmed that online students devoted more time to the course. Even so, they were unable to attain the same levels of academic success as their on-ground counterparts. This suggests that while their level of involvement in the course was high, online students did not use their time efficiently or effectively or time was not able to compensate for the challenges students faced in the virtual environment. Triangulation of the quantitative and qualitative data brought to light discrepancies and lack of clarity between the time spent online, as recorded by the tracking reports, versus the time spent online, as reported by the students.

3. What is the nature of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the nature of involvement influence student outcomes?
 - b. How does this differ by delivery method?

Data presented in Chapter 4 showed that online and on-ground student responses to the Classroom Community Scale (CCS) indicated that they shared a similar sense of community, connectedness, and learning goals achievement in their respective college success courses; yet the nature of involvement among the two groups was different. The qualitative data was essential to explore how online and on-ground students' nature of involvement differed.

Academic interactions with classmates, the instructor, and college personnel were reported by both online and on-ground students. Face-to-face interactions with peers, the instructor, and college personnel best described the nature of on-ground students' involvement in the course. Their presence in an actual classroom provided them with the opportunity to hear, if not participate in, the exchange of ideas among all of their classmates and the instructor. By contrast, online students used the LMS to engage in virtual interactions with their peers and instructor; however they did so in a selective manner. Students described reading and responding only to the requisite number of posts. Some students only read and replied to the posts of students who had responded to their posts. Other students only read and responded to the most recent posts. By choosing which posts to read and respond to, online students limited their exposure to the viewpoints of some of their classmates. While their interactions with college personnel took place in person, unlike the on-ground sections, they were not purposely integrated into the class and took place independently only when initiated by the student. Unlike the on-ground sections, where interactions with college personnel took place during a class sessions, online students lacked the support mechanism and focus of the physical course as they independently sought out college personnel.

Social interactions were only reported by on-ground students. They were limited to classmates and the instructor. As described by the students, these interactions occurred within the classroom and were generally superficial in nature. Only two on-ground students established a personal connection with one another that extended beyond the confines of the course.

Whether academic or social, all of the on-ground students described their interactions in positive terms. While online students' virtual interactions with their instructor and classmates were positive, half of them described their in-person interactions with college personnel as unsatisfactory. Many of them expressed frustration and dissatisfaction with the process as they recounted their individual interactions with staff in various offices across the campus.

An examination of the qualitative data concerning students' nature of involvement confirmed that both online and on-ground students' interactions were focused on academic matters concerning the course. While social interaction among online students was non-existent, most on-ground students engaged in cursory social interactions either before the start of class or at the end. The emphasis on academic interaction over social interaction did little to narrow the academic outcomes gap among the two groups of students, but it may have contributed to the formation of enduring connections. Regardless of their academic performance in the course, most online and on-ground students who were interviewed identified their instructor, a classmate, or a college staff member as someone they would remain in contact with after the semester ended.

Approach to the Study

The incongruity of placing academically vulnerable first semester students in the high risk environment of an online course presented a new research problem that was imbued with complexities and nuances well-suited to a multi-faceted research approach. Most studies of online learning have relied on quantitative data. Qualitative studies of online learning are in the minority. The same is true for studies of incoming community college students. There are few, if any, mixed methods studies that examine first semester community college students in online courses. Given the nature of the topic, the design provided a mechanism for synthesizing these previously disparate areas, integrating the qualitative and quantitative data in order to provide a more comprehensive understanding of online and on-ground student outcomes and engagement in a college success course. Had I only focused on the quantitative data provided by the instructors, the student information system, and the LMS student tracking reports, I would have ignored the student perspective which was integral to providing a richer understanding of the nature and level of their involvement in the course. The quantitative strand highlighted the discrepancies and shortcomings of the data presented in the student tracking reports, while the qualitative strand shed light on the phenomenon of course abandonment. These important findings would have gone undetected in a purely quantitative or qualitative study.

The study was informed by a theoretical framework that applied the lens of social constructivism to examine the influence of engagement on student outcomes. As an extension of the constructivist worldview, where individuals come to understand the world by developing personal meaning of their experiences, social constructivism asserts

that these meanings are further influenced through social interaction with others, as well as the historical and cultural norms that exist in people's lives (Creswell, 2007, p. 21). Technological innovations are having a significant impact on the social behavior of individuals and, by extension, historical and cultural traditions. In the higher education environment of the twenty-first century, longstanding traditions are being upended by technological innovations, resulting in changes to course delivery modalities and the ways in which students and instructors interact with one another. Within the context of this social constructivist worldview, the seminal works of Alexander Astin and Vincent Tinto, which explore the physical, intellectual, and social aspects of student engagement, provided the foundation for the research questions. Specifically, a convergent parallel mixed methods approach was used. Data collection was concurrent and the qualitative and quantitative strands were given equal priority. Course delivery method served as the study's independent variable. Dependent variables included student outcomes, as measured by final exam grades, final course grades, term grade point averages, persistence rates, withdrawal rates, and the results of the student self-assessment questionnaire and Classroom Community Scale (CCS). Intervening variables included the nature and level of students' involvement with the college success course. Data were gathered from student interviews, the administration of the student self-assessment questionnaire and the CCS, as well as academic and enrollment information retrieved from the institution's student information system, instructors' class records, and online tracking reports generated through the course's learning management system (LMS).

Conclusions

Academic engagement exceeded social engagement among both groups of students. According to Tinto (1987), students move through three phases when they start college: separation from their former communities, transition from old norms and behaviors, and incorporation into the college community through academic and social activities that encourage connectedness (pp. 95 – 99). Academic integration without social integration can lead to persistence; however social integration without academic integration will lead to departure. While full integration into both the academic and social systems of the college is not required for persistence, Tinto maintains that persistence is based on some degree of academic and social integration. Incorporation into the academic and social systems of the college are discrete yet co-dependent processes that are in continuous competition, as students direct their time and energy to one at the expense of the other (p. 119).

While some indication of limited social engagement was evident among on-ground students, there was no evidence of the same with online students. In terms of the nature of involvement academic engagement prevailed. Qualitative data found that most students were only engaged in the academic aspects of the course.

On-ground students described attending class, participating in discussions, and completing assignments. Outside of class they used email to contact their instructor for grade information, feedback on assignments, and clarification of due dates. When not in class, students used text messaging to contact their classmates on course-related matters. As part of the course, students had the opportunity to meet with college staff such as librarians, counselors, and academic advisors; however they did so purely for academic

reasons, as needed, to complete course-related assignments such as the research project or for help with planning their spring schedule. For nearly all of the on-ground students, social interaction with their instructor and classmates was superficial and limited to small talk at the start or end of class.

Online students' involvement in the course was entirely academic. They made use of LMS tools such as email, My Journal and, to a lesser extent, the message board to interact with their instructors. Like their on-ground counterparts, they were most interested in obtaining grade information, assignment feedback, and deadline dates. Without exception, interactions with their classmates took place on the message board and were course-related. Like their on-ground counterparts, online students' interactions with college staff took place in-person and were related to course assignments involving the Library and the Academic Advising Center.

The qualitative data gathered in this study illustrates that a shift is underway, with academic engagement superseding social engagement, regardless of course modality. Technology has accelerated that shift, providing access to higher education for students who cannot physically attend classes, while supplementing the ways in which on-ground students interact with faculty and peers outside of the classroom. As a result, the distinction between Tinto's (1987) concept of academic and social integration has blurred. These findings affirm the findings of a 2008 study conducted by Karp, Hughes, and O'Gara. In that study, Karp et al. concluded that first-year students' social integration did not occur through traditional extracurricular activities, but rather through academic relationships that were formed through classroom-based information networks (p. 16). Students were considered members of an information network if they had a "go

to” person on campus, used professors or classmates to get information, or sought out information through campus-based social relationships or information chains (p. 8). In the ensuing years, technological innovations have expanded the notion of information networks. As demonstrated in this study, students used established information networks, such as the LMS, and ad-hoc information networks, such as text messaging and email, to facilitate those academic relationships.

Despite the shift in the nature of student involvement, this study affirmed Astin’s Theory of Student Involvement and expanded upon Tinto’s model of student departure, both of which provided the basis for my theoretical framework.

Astin’s theory posits that student actions, rather than feelings, define involvement and entail “the amount of time, physical and psychological energy that the student invests in the learning process” (Astin, 1996, p. 124). As this study showed, involvement was driven by pragmatism, not emotions. Both groups of students purposely focused their time and energies on completing the course requirements.

Tinto’s model maintains that academic and social integration are distinct, but mutually interdependent processes and while academic integration without social integration can lead to persistence, social integration alone will lead to departure (Tinto, 1987, p. 119). This study found that while overt social involvement was negligible in the on-ground sections and non-existent among online students, it was occurring tangentially, with technology serving as the catalyst as students in both modalities used it to communicate with their instructor and each other on course-related matters.

Learning management system (LMS) data are imperfect measures of online student engagement. Because of its ubiquitous presence in today’s online learning

environment, the LMS is integral to any discussion of student engagement in higher education. LMS analytics offer instructors and administrators easily accessible, real-time summaries of online student activity. In keeping with prior studies that used LMS data to quantify online student engagement, tracking reports were generated to provide tallies of students' sessions, mouse clicks, and tool usage (Beer et al., 2010, p. 81; Clark et al., 2010, p. 488; Dawson et al., 2008, p. 223). These reports aligned with what researchers have generally found to be the most utilized tools: the discussion board, course content, and assessment (MacFadyen & Dawson, 2012, p. 158). The tracking reports provided a foundation for further inquiry. Upon closer scrutiny, the value of much of that data was questionable. In addition to the unexplained discrepancy between the number of sessions and the hours students spent using the "My Assessments" tool, the reports' major shortcomings were their inability to qualify how students spent their time online. An examination of the tracking reports' outliers found that the students at both ends of the continuum, those with the least recorded online activity and those with the most recorded online activity, failed the course. It was not surprising that the student with the lowest number of sessions, hours, and mouse clicks was unsuccessful in the course; however this study also demonstrated that quantity did not automatically result in success. In one instance, a student had self-reported spending 45 minutes per week on the course, but according to the tracking report, she had logged approximately 16 hours per week. By her own admission, she described feeling frustrated and "shutting down" when she did not understand the material. For this student, "shutting down" had cognitive and technical consequences. She may have given up on the coursework and intellectually shut down, but she likely remained logged into the system which resulted in an

overstatement of the amount of time she spent actively engaged in the course. As this example shows, excessive sessions, mouse clicks, and hours online were more representative of students' confusion and disengagement rather than a positive reflection of an actively involved student.

While this study highlighted the limitations of LMS-generated tracking reports, they should not be entirely disregarded. Although they cannot provide a definitive picture of student engagement, as part of a comprehensive study of online learning, they can highlight usage patterns and anomalies in online activity that, when examined more closely, can contribute to a better overall understanding of the online student experience.

Time and technology impacted students' approach to the course. This study examined students' level of involvement within the context of Astin's (1999) Student Involvement Theory which defines involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). While the theory has largely been associated with students at four-year residential institutions, its recognition of student time as the most important resource is just as applicable to community college students and was particularly relevant to this study. Time was an important consideration for both groups of students.

As one on-ground student reported, and others inferred, time on campus was spent attending class, doing what was required of them during class, and then leaving. As a result, time influenced their approach to the course and the ways in which they interacted with their instructor and peers. On-ground students turned to technology to make better use of their time away from campus. They used email to contact their instructor and text messaging to contact their classmates on course-related matters. Finding it difficult to

coordinate all of their schedules, one student described how she and others set up Google Docs so that they would not have to meet in person to complete their group project.

As affirmed by the qualitative data, online students reported that the timeliness of their instructor's responses to their emails and posts was most important to them and corresponded positively with their sense of connectedness to the course. Students' message board posts were driven by the instructors' weekly deadlines and, with few exceptions, they responded to no more than the required number of classmates' posts. For most, their selection of which posts to respond to was not based on the content of their classmates' posts, but rather on what was most expedient. Online students focused on doing nothing more than what was required of them. One student's approach to the message board entailed responding only to those students who responded to her posts. Other students' strategies entailed responding to the most current posts in the message board thread or responding only to the posts of students who understood the material.

Time was a commodity that online and on-ground students allocated carefully. Both groups of students made purposeful and pragmatic decisions to focus their time and attention on the academic aspects of the course. This was not surprising since the study was comprised of online and evening students. Research has found that internet and night courses generally attract non-traditional students with family and job responsibilities that make attending on-ground or daytime classes difficult (Aslanian, as cited in Xu & Jaggars, 2013, p. 1; Hoyt et al., 2009, p.88; Pontes et al., 2010, p. 8). This was true of the study participants who referenced work schedules, transportation issues, and an overall lack of time as reasons for enrolling in an online or evening section of the course. For these students, time was a finite resource that was in continual competition

with forces external to the campus (Astin, 1999, p. 523). In the end, students' academic engagement in the course was influenced, in varying degrees, by the ways in which they used technology to meet the course requirements amid competing demands on their time.

Course abandonment occurred despite online students' apparent engagement. An analysis of class records, student interviews and the LMS tracking reports identified five online students who remained enrolled in the course, participated through the final days of the semester, but did not take the final exam and failed the course. Astin (1999) states that student involvement is defined more by actions than by feelings. Simply put, involvement entails "the amount of physical and psychological energy that the student devotes to the academic experience" (p.158). Based on their actions, all of the students were ostensibly engaged until the end of the semester, expending energy on the course in various ways. Tracking report data showed that they spent from less than an hour to as much as 277 hours online. They logged between 29 and 818 sessions, and registered 40 to 1,373 mouse clicks. Each student took part in the research study, earning extra credit by completing both of the online questionnaires. One of the students, Sheila, took part in the second opportunity to earn extra credit by participating in an interview. By all indications, these students appeared intent on completing the requirements of the course; however their outcomes proved otherwise. This countered the findings from many studies of online community college students which have found that those who remain enrolled do as well as their on-ground counterparts (Blackner, 2000; Carpenter et al., 2004; Jaggars & Bailey, 2010; Rosenfeld, 2005; Summerlin, 2003).

From a quantitative perspective, the actions of the five students did not suggest that they were about to abandon the course. At the time of her interview, just days before the end of the semester, Sheila gave no hint that she would not be taking the final exam. Transcribing and analyzing her interview after the fact allowed me to focus on her actions and level of involvement relative to the vast disconnect between her recorded online activity and her subsequent course outcomes. Her quantitative data showed her to be actively involved, logging 1,338 mouse clicks, 277 hours, and 576 sessions during the semester; yet in actuality she was struggling in the course. By all accounts, Sheila was doing everything right. She had developed a positive rapport with her instructor, even sharing what she described as a “reading comprehension problem” with her. As a result, when Sheila experienced technical difficulties with the course, at the instructor’s suggestion, they met in person so she could receive additional assistance. Following their in-person meeting, the pair communicated by email several times each week. Despite their regular interactions, Sheila did not follow through when her instructor offered to refer her to an on-campus resource for help with her reading comprehension problem. Sheila also visited the library for help with the research assignment. Even though she worked with a librarian to obtain the information she needed for the assignment, she did not ask for additional PowerPoint assistance because she was afraid it would reveal her reading problem to the librarian. Although Sheila felt supported by her instructor and had connected with a helpful librarian, fear and embarrassment kept her from fully utilizing their expertise. Instead, she gave in to her feelings of frustration when she did not understand something and, as she described it, “shut down.”

Sheila's experience shed light on the challenges that inexperienced and academically vulnerable students face in online courses. Lacking the routine of regularly scheduled class sessions, students like Sheila can find themselves adrift in an unfamiliar setting, despite interacting with knowledgeable and well-intentioned faculty and staff. In Sheila's case, it resulted in her decision to skip the final, abandon the course, and jeopardize her academic success.

Sheila's experience parallels the findings of a phenomenological study conducted by Bambara et al. (2009) which found that community college students enrolled in high-risk online courses reported feelings of isolation, academic challenge, ownership, or acquiescence. The researchers identified students as either survivors or surrenderees. Survivors were described as empowered or compromised, while surrenderees were characterized as reluctant or misplaced. Empowered students were able to overcome academic challenges and feelings of isolation and succeed in the course. Compromised students met the academic challenges of the course but did not handle their feelings of isolation and acquiesced through silent submission or compromise. Reluctant surrenderees came to terms with their feelings of isolation but were not able to overcome the academic challenges and did not complete the course. Misplaced students were not able to overcome the academic challenges or the isolation and did not belong in the online course to begin with (p.13).

Without interviewing the other students it is impossible to know what led them to abandon the course. What is certain is that they, like Sheila, were surrenderees. It is evident that Sheila was misplaced and did not belong in the online college success course. Her reading comprehension problem, and the shame she felt because of it,

isolated her from the other students, the instructor, and college personnel. When students are left on their own with little external assistance, they are most vulnerable to departure (Tinto, 1987, p. 99). Had she been in an on-ground section of the course, her feelings of isolation may have been assuaged by regular, face-to-face interactions with her instructor and classmates. This may have encouraged her to seek the help she needed to be successful in the course. This cannot be known for sure; however what is certain is that Sheila's experience embodied the problem statement that was put forth at the start of this study, highlighting the dichotomy of placing academically vulnerable first semester students in the challenging environment of an online course. College success courses are designed to strengthen academic skills, foster engagement, and promote persistence. These outcomes were not realized for Sheila. Instead, the online environment enabled her to appear engaged when, in fact, she was either not engaged or engaged in ways that were counterproductive to the course outcomes. Course abandonment emphasizes the tenuous nature of at-risk students in online courses. It extends Tinto's model by demonstrating that departure is no longer limited to a student's physical separation from the classroom. In the online learning environment of the twenty-first century, course abandonment is an insidious form of departure that can be difficult to detect and challenging to address.

Online students articulated a disparity between perception and reality that was not evident with on-ground students. The results of the student self-assessment questionnaire found that online students expressed the same optimism as on-ground students when assessing their ability to meet the learning outcomes of the college success course; yet a comparison of the actual academic outcomes of the two groups found a

disconnect between perception and reality. Online students underperformed on-ground students in terms of final exam scores, overall course grades, and term GPA. Despite this, they persisted to the subsequent semester at a rate comparable to that of on-ground students with one notable difference: more online students returned on a part-time basis in the spring 2015 semester. It may be that they had originally intended to enroll part time in the fall and added the college success course believing that they would be able to manage an online course or they had unrealistic expectations for the course from the outset.

Studies have found that persistence and withdrawal issues in online courses may be based, in part, on students' preconceived notions that they are easier versions of the classroom-based course (Bambara et al., 2009; Nash, 2005). This perception was articulated in different ways by the online students I interviewed. Some students reported spending more time on their online course than their on-ground classes, describing the online college success course as the "main" course that they worked on. Others spoke about the challenges of online learning. When compared to her on-ground course, one student concluded, it was different [better] having a face-to-face experience than an online experience. Another student expressed her difficulties interacting with the instructor due to the asynchronous design of the course, telling me that the course did not work for her because she and the instructor were not online at the same time.

Pontes, et al. (2010) studied student preferences for online courses and found that at-risk students, those who delayed enrollment or enrolled part time, were financially independent, heads of household, or working full time, were more likely than traditional students to enroll in online courses. Much in the same way, the students in this study

were high risk in that they were academically underprepared first semester students who cited work schedules, family responsibilities, and transportation issues as reasons for enrolling in the online course. Although they persisted to the spring semester at the same rate as their on-ground peers, to some extent, the increase in part-time enrollment was likely a response to the unanticipated difficulties they faced in the online learning environment, coupled with their disappointing academic performance.

Richardson and Newby's 2006 study, which investigated graduate students' cognitive engagement in online courses, found that younger students were less engaged and relied on "surface" strategies and motivations to meet the minimal requirements of the course (p.33). Over time, the researchers observed a positive shift in the learning strategies of students who continued to enroll in online courses. As their experience and familiarity with online courses grew, students began to display "deep" learning strategies, as they replaced rote learning with "achieving" motivations such as improved time management skills and full utilization of course resources (p. 32). Ultimately they became self-directed learners who took responsibility for their own online learning.

Self-direction and personal responsibility are key attributes of successful students. College success courses are designed to help students develop these qualities; however research and the experiences of the students in this study reinforce the paradox of offering online courses to novice, at-risk students. Over three-quarters of the online study participants were enrolled in their first semester. Their average age was 21. As such, these new students were acclimating to college while trying to develop the skills needed to address the unique challenges of online learning. As they discovered and clearly articulated, the online course required a significant time commitment and an

ability to work independently. When their initial optimism about their ability to meet the course outcomes was not realized, their momentum faltered. While they persevered to the next semester, many students made adjustments to their spring schedules. The reason for the shift in enrollment status was beyond the scope of this study, but some possible explanations may have included a change in academic status which prohibited full time enrollment, a work schedule conflict, additional personal commitments, or financial considerations.

Recommendations

College success courses are a common and popular retention strategy used by colleges during a student's first year to improve outcomes (Goodman & Pascarella, 2006; Hunter & Linder, 2005; Karp, 2011; Mills, 2010; Rutschow & Schneider, 2011). Studies, which have mainly focused on four-year institutions, have concluded that college success courses have a positive effect on student outcomes, particularly first to second year persistence, credits earned, grade point average, and graduation rates (Ben-Avie et al., 2012; Boudreau & Kromrey, 1994; Cho & Karp, 2013; Pascarella & Terrenzini, 2005; Schnell et al., 2003; Zeidenberg et al., 2007). As a result, they will likely continue to play an important role in supporting first year student initiatives, particularly given the federal initiative to increase the number of college graduates by 2020. What is more difficult to determine is how their role will evolve in a higher education environment that is being redefined by technology.

Technological innovations and expanded access to the internet have had a significant impact on distance education, altering the higher education landscape and changing the ways in which people communicate, collaborate, access information, and

learn. As colleges work to meet the educational needs of the increasing number of online students, their breadth of online course offerings continues to grow. In recent years, college success courses have been added to those online course offerings. While the benefits of college success courses are well documented, recent studies of online learning have consistently reported higher withdrawal rates, lower persistence rates, weaker academic performance, and lower levels of engagement among student in online courses (Bambara et al., 2009; Blackner, 2000; Jaggars & Xu, 2010; Xu & Jaggars, 2011). The findings of this study support the research, as students in the on-ground sections of the college success course succeeded at a rate that was nearly three times that of their online counterparts. This calls into question the efficacy of offering college success courses to inexperienced, academically vulnerable students in a format that has proved problematic. Yet, in order to meet the educational needs of the growing segment of online students and to ensure that they have access to the same fundamental information that is available to on-ground students, it is essential to provide an online alternative to the traditional college success course. With that in mind, drawing on the study's findings and subsequent conclusions, the following recommendations are provided for faculty, administrators, and researchers who are creating, revising, or studying online college success courses.

Recommendations for practice. The findings of this study determined that the nature of online student involvement was entirely academic. Online students interacted with their instructor, classmates, and other college personnel for course-related reasons only. Students, both online and on-ground, were using technology to communicate with their instructors and classmates. With less emphasis on social involvement and more

emphasis on academic involvement, the longstanding belief that students need to be socially connected to campus through traditional extracurricular activities is waning. This is particularly true of online students who have limited or no presence on campus. Social involvement is occurring tangentially via the academic relationships that form through course-based “information networks” (Karp, et al., 2008). As a result, more emphasis should be placed on developing intentional opportunities for academic interactions among students, whether they are in an online or on-ground section of the course. As this study showed, in the technology-rich learning environment of the twenty-first century, these information networks are developing within the LMS of a course and through student directed strategies including text messaging and other various social media applications. Higher education professionals must acknowledge the changing profile of incoming students. With each passing year, institutions will encounter fewer and fewer students who are not digital natives. Traditional pedagogical approaches must embrace technological innovations and design ways to effectively incorporate them into virtual and traditional course offerings. The online college success course that was the subject of this study did not utilize social media or synchronous applications, such as Skype, to interact with students. The introduction of these types of applications may offer new and expanded opportunities to effectively engage with more students at critical junctures in the course, using the technological tools that they are most familiar with.

Follow-up measures should be created to assist students in the beginning weeks of the semester if they find themselves struggling in the online version of the college success course. Establishing an early warning system that would use data from class records and the LMS to detect students who, based on their grades or online activity, are

underperforming would enable advisors and counselors to reach out and connect students with supplemental resources to help them adjust to the demands of online learning. To that end, institutions must be committed to developing and maintaining resources that support online students. This includes professional development focused on LMS analytics to assist faculty with the accurate interpretation of online student performance.

Institutions should offer the college success course in a variety of formats, with flexible scheduling options. Although there is no data to assert that the on-ground version of the course is the solution for struggling online students, with proper assessment and assistance, students should be given the opportunity to switch to an alternate modality. For example, staggering the start dates of hybrid and on-ground sections of the course during the first few weeks of the semester would enable counselors and advisors who are working with these students to move them to a different section. This would result in minimal disruption to their first semester schedule and help them to stay on track and develop the skills needed to be academically successful.

Advertisements for online education can be found on billboards, web pages, and television, to name a few. Typically, they portray students working on laptops in non-academic settings. Whether students are sitting on the beach, in a park, or at their kitchen table, these media images convey a compelling visual message about the convenience and flexibility of online learning; however they also infer that online learning is something that can be easily integrated into everyday life activities. As students in this study came to learn, the online courses require a significant amount of time and attention, a fact that is not explicitly addressed in any of the advertising media. This perpetuates an unrealistic message to students, one that is particularly detrimental to underprepared and

inexperienced students. When promoting online learning, institutions must present a balanced perspective that discusses convenience along with the time commitment necessary to succeed in an online course. This message is critically important for novice students and should be included in advertising materials and conveyed during new student orientation, advising and registration sessions, and mandatory orientations for online students.

Recommendations for research. Among the existing studies of college success courses, there has been little research involving longitudinal data, cross-institutional analysis, learning outcomes assessment, and students' perspectives of college success courses (Boudreau & Kromrey, 1994; Mills, 2010; O'Gara et al., 2009; Swing, "First-Year Initiative (FYI) Overview," 2002). Additionally, little or no research exists on community college students in online college success courses. While this study focused on community college students and included learning outcomes assessment, an examination of students' perspectives, and research on the online student experience, there is more research to be done. Based on the findings and conclusions of this study, there are several topics that merit further research. To that end, the following studies involving first semester students are recommended.

While the number of online students who persisted to the next semester was similar to that of the on-ground students, there was a significant difference among the two groups' enrollment status. More online students dropped to part time status in the subsequent spring semester. A qualitative study that examines the subsequent semester enrollment status of first semester online students is needed to determine if this finding was specific to this study or a more widespread occurrence. Identifying the factors that led to their

change in enrollment status to determine if it was connected to their online experience in the previous semester will help practitioners refine online courses aimed at first time students, with the goal of minimizing the decrease in subsequent semester credit loads.

Separately or concurrently, longitudinal research should be conducted to track the success rate of a cohort of online students who persist in subsequent semesters, whether it is on a part-time or full-time basis, to see if there is a relationship between success rate and enrollment status. The study should track the cohort, and a similar on-ground cohort, from their first semester to last semester, or graduation, noting any significant enrollment patterns. If students who take an online course in their first semester are not succeeding at a rate comparable to that of fully on-ground first semester students, institutions must be aware so that they can devise flexible options for first semester students who are unable to commit to a fully on-ground educational experience.

The withdrawal rates of the online and on-ground students who remained enrolled in their respective college success course were the same; however the instances of course abandonment in the online sections were absent from the on-ground sections of the course. Further qualitative studies of first semester students in online classes should be conducted to determine if course abandonment was an anomaly that only arose in this study or if it is a regular occurrence in online courses. Possessed with the knowledge of why students walk away from online courses, higher education practitioners would be better able to devise interventions that reduce the number of students who abandon online courses.

It has been suggested that online learning is less about physical separation and more about managing time (Allen & Seaman, 2016). All of the online students in this study

were also taking on-ground courses in their first semester. National data has found that students enter community colleges with high levels of motivation and a desire to succeed (Center for Community College Student Engagement, 2015). Consistent with this data, when responding to the self-assessment questionnaire, the online students in this study expressed optimism in their ability to meet the learning outcomes of the course.

However when their responses were compared to their actual outcomes, disparities between perception and reality were evident. Online students' academic performance did not match the optimism they expressed. A qualitative study is needed to examine the factors that contribute to such disparities, along with the reasons first semester students enroll in online courses and their expectations for these courses. When institutions and practitioners gain insight into the motives and goals of online students and can identify the gap between students' intentions and actual experience, they will be better positioned to make informed decisions about course design and delivery.

The convergent parallel mixed methods design I used efficiently and effectively generated a robust number of participants for both the quantitative and qualitative strands of the study and provided a wealth of data. Given the scarcity of mixed methods studies involving community college students, college success courses, and online learning, more mixed methods research is warranted. Building upon the findings from this study, additional studies that employ an explanatory sequential mixed methods design are recommended. Several of the previously suggested topics for future research lend themselves to such a design. This would enable researchers to analyze quantitative data from the LMS, class records, and the student information system, to create interview questions that address specific anomalies, trends, or themes that emerge during the

quantitative analysis. This would allow for a targeted and deeper understanding of the online student experience.

Recommendations for policy. Growth in online learning has added a new dimension to the higher education environment of the twenty-first century, demonstrating that complex educational change is: large-scale, comprised of interrelated and differentiated parts, and systemic (Hoyle and Wallace, 2005. p. 30). While well intentioned and aligned with the open access mission of community colleges, the findings of this study have shown that online learning is not without its drawbacks. As a result, policy decisions concerning online learning pose a dilemma for community college leaders. On one hand, online courses provide educational opportunities for individuals who might not otherwise be able to attend college. Conversely, as this study found, they can also place underprepared and inexperienced students in academic jeopardy. The decision confronting leaders is whether to enact policies that prohibit first semester students from enrolling in online courses or endorse policies that allow online course enrollment for all students. While restrictive online course enrollment policies would counter community colleges' open access commitment, unrestrictive policies may impede the national imperative to increase college graduation rates.

The ambiguity in policy decisions such as these creates anxiety. As a result, it has been argued that rather than tolerate ambiguity, leaders are more apt to shield themselves from it by focusing on one aspect of a dilemma, coming up with a narrow solution, and ignoring that which was not addressed (Wheatley, 2006, p. 101). This approach is neither practical nor productive. Technological innovation will ensure that online learning remains in a continual state of flux for years to come. As a result, policy decisions

concerning online learning will need to be both comprehensive and flexible, driven by data from the growing body of research. The far-reaching impact of online learning will not allow for short-sighted solutions. Policies will need to look to the future and be subject to regular review and revision.

Implications for Leadership

This study illustrates one of the more challenging aspects that leaders face—the issue of ambiguity. In educational leadership, the roots of ambiguity lie in its complexity (Hoyle and Wallace, 2005, p. 27). In terms of online learning,

The essence of [the] dilemma is the double ambiguity, first, of being faced with choosing between alternative courses of action, and second, of realizing that no alternative is fully desirable, feasible, and guaranteed to bring success.

Whichever course is taken, something that is valued will be lost. Coping with dilemmas incurs unavoidable costs (p.42).

Online learning, as it exists within the current higher education landscape, will remain challenging and complex for the foreseeable future. Adaptive leadership will be necessary to address the ambiguities that will likely arise. Leaders will be called upon to help those that they lead develop a tolerance for ambiguity and an understanding that people in positions of authority do not have all the answers and that easy answers are not always the right ones (Heifetz, Grashow, & Linsky, 2009, p. 169).

Effective leadership will require individuals who are “willing and competent at stepping into the unknown and stirring things up.” To that end, leaders committed to online learning must be able to handle the disorder, ambiguity, and tension that come

with adaptive change (Heifetz et al., 2009, p. 206). The findings, conclusions, and recommendations of my study support these leadership implications.

Final Thoughts

This study confirmed that enrolling academically vulnerable first semester students in an online version of the college success course placed them at a distinct disadvantage. Although online and on-ground students began their first semester similarly optimistic in their ability to meet the learning outcomes of the course, on-ground students academically outperformed online students. Regardless, online students returned the following semester at a rate that was comparable to their on-ground peers; however more online students registered on a part time basis. These findings have far-reaching implications for the institution and its students and should serve as a cautionary tale for other community colleges. In the current higher education climate, where emphasis is placed on access, success, and completion, placing new students in a challenging learning environment that results in high failure rates and impedes academic progress runs counter to the mission of community colleges.

Based on the findings of this study, enrolling these students in the online college success course was not in their best interest, particularly since the course is designed to prepare them for the rigors of college-level work. Research has demonstrated the integral relationship between college students' first-year experience and their academic success. For many of the online students, their introduction to college was not a positive experience and placed them in an academically tenuous position. While this outcome was not intentional, it needs to be acknowledged and addressed.

For both groups of students, academic engagement was their primary focus. Building on this finding, engagement may be the key to improving outcomes in online college success courses. Greater attention must be paid to the nature and level of students' involvement in the course, both academically and socially. To that end, emphasis must be placed on integrating contextualized learning experiences into the course, providing online students with multiple and varied opportunities to academically engage with their instructor, classmates, and college staff in ways that also promote social engagement.

As open access institutions, community colleges play a key role in providing all students with the opportunity to earn a college degree. Online learning has entered the mainstream and holds great promise for students who have the academic skills and experience necessary to succeed in an online course. Two-year institutions have incorporated online course offerings as a way to meet the needs of an increasingly diverse constituency. While online courses support community colleges' commitment to access, as this study has shown, they can hinder success and completion for at-risk students. Offering online courses to first semester, academically underprepared students requires thought, flexibility, and a willingness to acknowledge the modality's inherent shortcomings. Only through a commitment to ongoing research and continuous improvement can community colleges address the challenges of online learning and ensure that they are providing effective online courses for their incoming students.

References

- Adams, C. (July 7, 2010). Community colleges unite to improve completion rates. In *Education Week*. Retrieved from http://blogs.edweek.org/edweek/college_bound/2010/07/its_a_lofty_goal_to.html
- Allen, I.E. & Seaman, J. (2010). Class differences: Online education in the United States, 2010. Babson Survey Research Group.
- Allen, I.E. & Seaman, J. (2011). Going the distance: Online education in the United States, 2011. Babson Survey Research Group.
- Allen, I.E. & Seaman, J. (2014). Grade change: Tracking online education in the United States. Babson Survey Research Group.
- Allen, I.E. & Seaman, J. (2016). Online report card: Tracking online education in the United States. Babson Survey Research Group.
- American Association of Community Colleges (2012). *Community college trends and statistics*. Retrieved from <http://www.aacc.nche.edu/AboutCC/Trends/Pages/default.aspx>.
- American Psychological Association (2013). *Ethical principles of psychologists and code of conduct (Including 2010 amendments)*. Retrieved from <http://www.apa.org/ethics/code/index.aspx>.
- Astin, A.W. (1996). Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development*, 37, 123 – 133.
- Astin, A.W. (1999). Student involvement: A developmental theory for higher education. In *Journal of College Student Development*, 40 (5), 518 – 529. (Originally published July 1984, Alexander W. Astin, Graduate School of Education, University of California, Los Angeles).
- Baker, D.L., Hope, L., & Karandjeff, K. (2009). *Contextualized teaching & learning: A faculty primer*. Chancellor's Office of the California Community Colleges.
- Bambara, C.S., Harbour, C.P., Davies, T.G., & Athey, S. (2009). The lived experience of community college students enrolled in high-risk online courses. *Community College Review*, 36(3), 219 – 238.
- Barefoot, B.O. (2002). *Second national survey of first-year academic practices, 2002*. Brevard, NC: John N. Gardner Institute for Excellence in Undergraduate Education. Retrieved from http://www.jngi.org/uploads/File/2002_2nd_Nat_Survey_Responses_ALL.pdf.

- Barefoot, B.O. (2005). Current institutional practices in the first college year. In M.L. Upcraft, J.N. Gardner, B.O. Barefoot & Associates, *Challenging & supporting the first-year student: A handbook for improving the first year of college* (pp. 47 - 63). San Francisco, CA: Jossey-Bass.
- Beer, C., Clark, K., & Jones, D. (2010). Indicators of engagement. In C.H. Steel, M.J. Keppell, P. Gerbic & S. Housego (Eds.), *Curriculum, technology & transformation for an unknown future. Proceedings ascilite Sydney 2010* (pp. 75 – 86).
- Ben-Avie, M., Kennedy, M., Unson, C., Li, J., Riccardi, R.L., & Mugno, R. (2012). First-year experience: A comparison study. *Journal of Assessment and Institutional Effectiveness*, 2(2), 143 – 170.
- Blackner, D.M. (2000). *Prediction of community college students' success in developmental math with traditional classroom, computer-based on-campus and computer-based at a distance instruction using locus of control, math anxiety and learning style*. Unpublished doctoral dissertation, University of North Texas, Denton, TX. Available at ProQuest Dissertations and Theses data base. (UMI 3064379).
- Bloomberg, L.D. & Volpe, M. (2012). *Completing your qualitative dissertation: A road map from beginning to end* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Bogart, Q.J. (1994). The community college mission. In G.A. Baker III (Ed.), *A handbook on the community college in America: Its history, mission, and management* (pp. 60 - 73). Westport, CT: Greenwood Press.
- Boudreau, C.A. & Kromrey, J.D. (1994). A longitudinal study of the retention and academic performance of participants in a freshmen orientation course. *Journal of College Student Development*, 35(6), 444 – 449.
- Carpenter, T.G., Brown, W.L., & Hickman, R.C. (2004). Influences of online delivery on developmental writing outcomes. *Journal of Developmental Education*, 28(1), 14 – 19.
- Center for Community College Student Engagement (2015). *Survey of entering student engagement (SENSE): High expectations and aspirations*. Retrieved from http://www.ccsse.org/center/initiatives/iss/quotes_highexpasp.cfm.
- Center for Community College Student Engagement (2012). *About the community college survey of student engagement*. Retrieved from <http://www.ccsse.org/aboutccsse/aboutccsse.cfm>.

- Chatti, M.A., Jarke, M., & Frosch-Wilke, D. (2007) The future of e-learning: A shift to knowledge networking and social software. *International Journal of Knowledge and Learning*, 3(4/5), 404 – 420.
- Cho, S. & Karp, M.M. (2013). Student success courses in the community college: Early enrollment and educational outcomes. *Community College Review*, 41(1), 86 – 103.
- Clark, K., Beer, C., & Jones, D. (2010). Academic involvement with the LMS: An exploratory study. In C.H. Steel, M.J. Keppell, P. Gerbic & S. Housego (Eds.), *Curriculum, technology & transformation for an unknown future. Proceedings ascilite Sydney 2010* (pp. 487 – 496).
<http://ascilite.org.au/conferences/sydney10/procs/Kenclark-full.pdf>.
- Clarke, M.H. & Cundiff N.L. (2011). Assessing the effectiveness of a college freshman seminar using propensity score adjustments. *Research in Higher Education*, 52, 616 – 639.
- Coates, H. (2005). Leveraging LMSs to enhance campus-based student engagement. *EDUCAUSE Quarterly*, 1, 66 – 68.
- Coates, H., James, R., & Baldwin, G. (2005). A critical examination of the effects of learning management systems on university teaching and learning. *Tertiary Education and Management*, 11, 19 - 36.
- Crawford, J. (2009). Learning theories that encompass distance education. In P. Desmarais & M. Fuller (eds.), *Learning theory and educational technology* (n.p.). Retrieved from
<https://sites.google.com/a/boisestate.edu/edtech504/crawfordj-6>.
- Creswell, J.W. (2007). *Qualitative inquiry & research design*. Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J.W. & Plano Clark, V. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications, Inc.
- Culp, M.M. (2005). Doing more of what matters: The key to student success. *New Directions for Community Colleges*, 131, 77 – 87.
- Cuseo, J. (n.d.). The empirical case for the first-year seminar: Evidence of course impact on student retention, persistence to graduation, and academic achievement.

- Dahlstrom, E., de Boor, T., Grunwald, P., & Vockley, M. (2011). *The ECAR national study of undergraduate students and information technology* (Research Report). Boulder, CO: EDUCAUSE Center for Applied Research. Retrieved from <http://www.educause.edu/ecar>.
- Dawson, S., Heathcote, L., & Poole, G. (2010). Harnessing ICT potential: The adoption and analysis of ICT systems for enhancing the student learning experience. *International Journal of Educational Management* 24 (2), pp. 116 – 128.
- Dawson, S., McWilliam, E. & Tan, J.P.L. (2008). Teaching smarter: How mining ICT data can inform and improve learning and teaching practice. In *Hello! Where are you in the landscape of educational technology? Proceedings ascilite Melbourne 2008*. <http://www.ascilite.org.au/conferences/melbourne08/procs/dawson.pdf>.
- Dellinger, A.B. & Leech, N.L. (2007). Toward a unified validation framework in mixed methods research. *Journal of Mixed Methods Research*, 1(4), 309 -332.
- Democracy's Colleges Call to Action (2010). Retrieved from https://www.aacc.nche.edu/newsevents/News/articles/Documents/callaction_04202010.pdf
- Derby, D.C., & Smith, T. (2004). An orientation course and community college retention. *Community College Journal of Research and Practice*, 28, 763 – 773.
- Fisher, K. (2010, May 17). Online student engagement: CCSSE finds enrollment status and online experience are key. *Community College Week*, 22(20), 7 – 9.
- Florida Department of Education (2006). *Taking student life skills course increases academic success* (Data Trend #31). Tallahassee, FL: Florida Community Colleges and Workforce Education.
- Fralick, M. (2008). Comprehensive college success courses increase student persistence, self-confidence and satisfaction. In W.G. Troxel & M. Cutright (Eds.), *Exploring the evidence: Initiatives in the first college year* (Monograph No. 49). Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition.
- Freidman, D.B. & Marsh, E.G. (2009). What type of first-year seminar is most effective? A comparison of thematic seminars and college transition/success seminars. *Journal of the First-Year Experience & Students in Transition*, 2 (1), 29 – 42.
- Gleazer, E.J. (1994). Evolution of junior colleges into community colleges. In G.A. Baker III (Ed.), *A handbook on the community college in America: Its history, mission, and management* (pp. 17 – 27). Westport, CT: Greenwood Press.

- Goodman, K. & Pascarella E.T. (2006). First year seminars increase persistence and retention: A summary of the evidence from how college affects students. *Peer Review* 8(3), 26 – 28.
- Greene, J.S., Caracelli, V.J., & Graham, W.F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11 (3), 255 – 274.
- Halpin, R.L. (1990). An application of the Tinto model to the analysis of freshman persistence in a community college. *Community College Review*, 17(4), 22 – 32.
- Harrington, C. (2010). [SSD Assessment Data]. Unpublished raw data.
- Healey, J.F. (2002). *Statistics a tool for social research*. Belmont, CA: Wadsworth/Thomson Learning.
- Heifetz, R., Grashow, A., & Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world*. Boston, MA: Harvard Business Press.
- Hesse-Biber, S.N. (2010). *Mixed methods research design: Merging theory with practice*. New York, NY: Guilford Press.
- Hope, L. (2010). *Literature review of student success courses*. (Problem Solution Exploration Papers, Winter 2010). Stanford, CA: The Carnegie Foundation for the Advancement of Teaching.
- Hoyle, E. & Wallace, M. (2005). *Educational leadership: Ambiguity, professionals and managerialism*. London, G.B.: Sage Publications, Ltd.
- Hoyt, J.E., Howell, S.L., & Young, S. (2009). Impact analysis of an evening program: Perceptions of need, time to degree, and degree completion. *The Journal of Continuing Higher Education*, 57, 83 – 91.
- Hunter, M.S. & Linder, C.W. (2005). First-year seminars. In M.L. Upcraft, J.N. Gardner, B.O. Barefoot & Associates, *Challenging & supporting the first-year student: A handbook for improving the first year of college* (pp. 275 – 291). San Francisco, CA: Jossey-Bass.
- Institute of Education Sciences (IES), 2011. National Center for Education Statistics. "Integrated Postsecondary Education Data System (IPEDS) Data Center Files", retrieved from <http://nces.ed.gov/ipeds/datacenter/>
- Jaggars, S.S. (2011). *Online learning: Does it help low-income and underprepared students?* (CCRC Working Paper No. 26). New York, NY: Columbia University, Teachers College, Community College Research Center.

- Jaggars, S.S. & Bailey T. (2010). *Effectiveness of fully online courses for college students: Response to a Department of Education meta-analysis*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Jaggars, S.S. & Xu, D. (2010). *Online learning in the Virginia community college system*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Jenkins, D., O’Gara, L., & Morest, V.S. (2008, April). *Do student success courses actually help community college students succeed?* PowerPoint presentation presented at the annual convention of the American Association of Community Colleges, Philadelphia, PA.
- Karp, M.M. (2011). *Toward a new understanding of non-academic student support: Four mechanisms encouraging positive student outcomes in the community college*. (CCRC Working Paper No. 28). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Karp, M.M., Bickerstaff, S., Rucks-Ahidiana, Z., Bork, R.H., Barragan, M., & Edgecombe, N. (2012). *College 101 courses for applied learning and student success*. (CCRC Working Paper No. 49). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Karp, M.M., Hughes, K.L., & O’Gara, L. (2008). *An exploration of Tinto’s integration framework for community college students*. (CCRC Working Paper No. 12). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Kirk, R.R. (1996). Practical significance: A concept whose time has come. *Educational and Psychological Measurement*, 56(5), 746 – 759.
- Kuh, G.D. (2009). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 141, 5 – 20.
- Kuh, G.D. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development*, 50(6), 683 – 706.
- Lancaster & Gaskill (2010). *Financial report of the county community colleges of the state of New Jersey for the fiscal years 2006 – 2009*. New Jersey Community College Business Officers Association.
- Larreamendy-Joerns, J. & Leinhardt, G. (2006). Going the distance with online education. *Review of Educational Research*, 76(4), 567 – 605.

- Mashaw, B. (2012). A model for measuring effectiveness of an online course. *Decision Sciences Journal of Innovative Education*, 10(2), 189 – 221.
- Maxwell, J.A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage Publications.
- Macfadyen, L.P. & Dawson, S. (2012). Numbers are not enough. Why e-learning analytics failed to inform an institutional strategic plan. *Educational Technology & Society*, 15 (3), 149 – 163.
- Mehaffy, G.L. (2010). The red balloon project: Re-imagining undergraduate education. Retrieved from http://www.aascu.org/meetings/aa_summer10/RedBalloonProject.pdf
- Mellow, G.O. & Heelan, C. (2008). *Minding the dream*. Lanham, Maryland: Rowman & Littlefield Publishers, Inc.
- Middlesex County College (2010). *SSD 101 student success course abstract*. Retrieved from <https://infonet.middlesexcc.edu/assessment/content.cfm?dept=History%20and%20Social%20Science>.
- Middlesex County College (2011). *About us*. Retrieved from <http://www2.middlesexcc.edu/about.html>.
- Middlesex County College (2014). *Fact book: Fall 2014*. Retrieved from <https://infonet.middlesexcc.edu/InstitutionalResearch/Documents/Enrollment%20Report/14FA.pdf>
- Miles, M.B. & Huberman A.M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage Publications.
- Miller, J.W., Janz, J.C., & Chen, C. (2007). The retention impact of a first-year seminar on students with varying pre-college academic performance. *Journal of the First-Year Experience & Students in Transition*, 19(1), 47 - 62.
- Mills, M.T. (2010). Tools of engagement: Success course influence on student engagement. *Journal of the First-Year Experience & Students in Transition*, 22(2).
- Mullin, C.M. (2010, June). *Rebalancing the mission: The community college completion challenge* (AACC Policy Brief 2010-02PBL). Retrieved from <http://www.aacc.nche.edu/Publications/Briefs/Pages/rb06152010.aspx>

- Murray, M., Perez, J., Geist, D., & Hedrick, A. (2012). Student interaction with online course content: Build it and they might come. *Journal of Information Technology Education: Research*, 11, 125 – 140.
- Nash, R.D. (2005). Course completion rates among distance learners: Identifying possible methods to improve retention. *Online Journal of Distance Learning Administration*, 8(4).
- National Resource Center for the First-Year Experience and Students in Transition (2009). *2009 National survey of first-year seminars* (Executive Summary). Retrieved from http://sc.edu/fye/research/reports/pdf/2009%20National%20Survey%20FYS_Execut%20Summary_II.pdf.
- National Student Clearinghouse Research Center (2012). *Completing college: A national view of student attainment rates* (Signature Report 4). Retrieved from http://www.studentclearinghouse.info/signature/4/NSC_Signature_Report_4.pdf.
- National Student Clearinghouse Research Center (2012). *Degree attainment*. (Snapshot Report). Retrieved from <http://www.studentclearinghouse.info/snapshot/docs/SnapshotReport7-DegreeGrowthbyAge2Yr.pdf>.
- New Jersey Council of County Colleges (Fall 2012). *New Jersey's community colleges fact book and directory*. 21st Ed.
- New Jersey Council of County Colleges (Fall 2013). *New Jersey's community colleges fact book and directory*. 22nd Ed.
- New Jersey Council of County Colleges (Fall 2015). *New Jersey's community colleges fact book and directory*. 24th Ed.
- O'Gara, L., Karp, M.M., & Hughes, K.L. (2009). Student success courses in the community college: An exploratory study of student perspectives. *Community College Review*, 36(3).
- Pallant, J. (2001). *SPSS survival manual: A step-by-step guide to data analysis using SPSS for Windows (version 10)*. N.S.W.: Allen and Unwin.
- Pascarella, E.T. & Terenzini, P.T. (2005). *How college affects students: A third decade of research* (Vo. 2). San Francisco, CA: Jossey-Bass.
- Pontes, M. C., Pontes, N. M., Hasit, C., Lewis, P. A., & Sieftring, K. T. (2010). Variables related to undergraduate students preference for distance education classes. *Online Journal of Distance Learning Administration*, 13(2).

- Reason, R.D. (2009). An examination of persistence research through the lens of a comprehensive conceptual framework. *Journal of College Student Development* 50, 659 – 682.
- Richardson, J.C. & Newby, T. (2006). The role of students' cognitive engagement in online learning. *The American Journal of Distance Education*, 20(1), 23 – 37.
- Rosenfeld, G. (2005). *A comparison of the outcomes of distance learning students versus traditional classroom students in the community college*, unpublished doctoral dissertation, Florida Atlantic University, Boca Raton, FL. Available at ProQuest Dissertations and Theses data base. (UMI 3173536).
- Rovai, A.P (2002). Development of an instrument to measure classroom community. *Internet and Higher Education* (5) 197 – 211.
- Rovai, A.P. (2002). Sense of community, perceived cognitive learning, and persistence in asynchronous learning networks. *Internet and Higher Education* (5) 319 – 332. (Descriptive statistics-M, SD, along with Pearson Correlation Analysis were used with the CCS)
- Rovai, A.P. (2003). In search of higher persistence rates in distance education online programs. *Internet and Higher Education* (6).
- Rovai, A.P. & Jordan, H.M (2004). Blended learning and a sense of community: A comparative analysis with traditional and fully online graduate courses. *International Review of Research in Open and Distance Learning* 5 (2). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/viewArticle/192>. (MANCOVA and descriptive statistics were used with the CCS)
- Rovai, A.P. & Wighting, M.J. (2005). Feelings of alienation and community among higher education students in a virtual classroom. *Internet and Higher Education* (8) 97 – 110. (Cononical Correlation Analysis-CCA- and MANOVA were used with the CCS, along with descriptive statistics-M, SD)
- Rutschow, E.Z. & Schneider, E. (2011). *What we know about improving developmental education*. New York, NY: MDRC.
- Schnell, C.A., Louis, K.S., & Doetkott, C. (2003). The first-year seminar as a means of improving college graduation rates. *Journal of the First-Year Experience*, 15(1), 53 – 76.
- Schulte, M. (2011). The foundations of technology distance education: A review of the literature to 2001. *The Journal of Continuing Higher Education*, 59, 34 – 44.
- Shugart, S.C., & Romano, J.C. (2008). Focus on the front door of the college. *New Directions for Community Colleges*, 144, 29 – 39.

- Strayhorn, T.L. (2009). An examination of the impact of first-year seminars on correlates of college student retention. *Journal of the First-Year Experience & Students in Transition*, 21(1), 9 – 27.
- Summerlin, J.A. (2003). *A comparison of the effectiveness of off-line internet and traditional classroom remediation of mathematical skills*, unpublished doctoral dissertation, Baylor University, Waco, TX. Available at ProQuest Dissertations and Theses database. (UMI 3086388).
- Sumner, J. (2000). Serving the system: A critical history of distance education. *Open Learning*, 15(3). Retrieved from <http://pages.towson.edu/bsadera/istc717/modules05/module8/3888263.pdf>.
- Swing, R.L. (August 28, 2002). *First-year initiative (fyi) overview*. The Policy Center on the First Year of College. Retrieved from <http://www.brevard.edu/fyc/fyi/essays/index.htm>.
- Swing, R.L. (September 17, 2002). *How many weekly contact hours is enough?* The Policy Center on the First Year of College. Retrieved from http://www.sc.edu/fye/resources/assessment/essays/swing-8.28.02_pdfs/hours.pdf.
- Swing, R.L. (September 27, 2002). *What type of seminar is best?* The Policy Center on the First Year of College. Retrieved from http://www.sc.edu/fye/resources/assessment/essays/swing-8.28.02_pdfs/essay4.pdf.
- Tashakkori, A. & Teddlie, C. (2010). Putting the human back in “human research methodology”: The researcher in mixed methods research. *Journal of Mixed Methods Research*, 4, 271 – 277.
- Teddlie, C. & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches n the social and behavioral sciences*. Los Angeles, CA: Sage Publications, Inc.
- Teddlie, C. & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1(1), 77 – 100.
- Thelin, J.R. (2004). *A history of American higher education*. Baltimore, MD: The Johns Hopkins University Press.
- Thelin, J.R. (2010). *The attrition tradition in American higher education: Connecting past and present*. (AEI Working Paper 2010-01). Retrieved from <http://www.aei.org/paper/100103>

- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago, IL: The University of Chicago Press.
- Tinto, V. (1999). Taking student retention seriously: Rethinking the first year of college. *NACADA Journal*, 19(2), 5 – 9.
- University 101 Programs (2002). *History of the first year seminar & university 101 program*. Retrieved from <http://sc.edu/univ101/aboutus/history.html>.
- Upcraft, M.L., Gardner, J.N., & Barefoot, B.O. (2005). Introduction: The first year of college revisited. In M.L. Upcraft, J.N. Gardner, B.O. Barefoot & Associates, *Challenging & supporting the first-year student: A handbook for improving the first year of college* (pp. 1 - 14). San Francisco, CA: Jossey-Bass.
- Waschull, S. B. (2001). The online delivery of psychology courses: Attrition, performance, and evaluation. *Teaching of Psychology*, 28(2), 143 – 147.
- Wheatley, M.J. (2006). *Leadership and the new science: Discovering order in a chaotic world*. San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Williams, T.E. (2002). Challenges in supporting student learning and success through student services. *New Directions for Community Colleges*, 117, 67 – 76.
- Wolf-Wendell L, Ward, K. & Kinzie, J. (2009). A tangled web of terms: The overlap and unique contribution of involvement, engagement and integration to understanding college student success. *Journal of College Student Development*, 50, 420-428.
- Xu, D. & Jaggars, S.S. (2013). *Adaptability to online learning: Differences across types of students and academic subject areas*. (CCRC Working Paper No. 54). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Xu, D. & Jaggars, S.S. (2011). *Online and hybrid course enrollment and performance in Washington state community and technical colleges*. (CCRC Working Paper No. 31). New York, NY: Columbia University, Teachers College, Community College Research Center.
- Yin, C. (2011). [Grade Distribution by Course Offering, Fall 2009, All Courses]. Unpublished raw data.
- Yin, C. (2011). [SSD 101 and Next-Semester Registration]. Unpublished raw data.
- Zeidenberg, M., Jenkins, D., & Calcagno, J.C. (2007). *Do student success courses actually help community college students succeed?* (CCRC Brief). New York, NY: Columbia University, Teachers College, Community College Research Center.

Appendix A

Student Self-Assessment Questionnaire

Student ID _____

Directions: Think about the topics that have been covered in the student success course over the duration of the semester and respond honestly to the following statements:

- 1. I am able to discuss and apply study skills and student success research to daily practices as a college student.**

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

- 2. I am able to identify and critically evaluate information related to success in college.**

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

- 3. I am able to develop personally meaningful oral, visual, and written summaries of student success concepts.**

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

- 4. I am able to identify and engage in productive and ethical student behaviors.**

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

- 5. I am able to demonstrate effective interpersonal skills in groups and connections outside of the classroom.**

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

Appendix B

Final Exam

Name: _____ Student ID: _____ Class: _____ Date: _____

This test consists of 50 multiple choice questions worth 2 points each

SSD 101 Final Exam

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. According to the research study conducted by Howard and Jones (2000), students had higher levels of all of the following EXCEPT _____ after completing a student success course.
- a. Career decision
 - b. Confidence
 - c. Knowledge of resources
 - d. Study skills
- _____ 2. Which of the following would be considered plagiarism?
- a. Putting your name on the work of someone else
 - b. Changing a few words in the sentence so you didn't copy it word for word
 - c. Paraphrasing without citing source
 - d. All of these are correct
- _____ 3. Cheating can be defined as:
- a. Using non-approved materials or resources when completing an assignment or exam
 - b. Working independently on an assignment
 - c. Getting assistance from a tutor as needed
 - d. All of these are correct

- _____ 4. If a math course is a co-requisite to a business course, this means that you:
- a. Cannot register for the business course until you have successfully completed the math course
 - b. Cannot register for the math course until you have successfully completed the business course
 - c. Must take the math and business courses within the same year
 - d. Must take the math course before or at the same time as the business course
- _____ 5. In the research study on study guides that was conducted by Dickson, Miller, and Devoley (2005), it was found that:
- a. Students who used the study guides performed better on the tests than students who did not
 - b. Students perceived the study guides to be helpful
 - c. Students who completed some of the study guide did just as well as students who completed most of it
 - d. All of these are correct
- _____ 6. What does the research say about getting involved with clubs or activities on campus?
- a. It is a good idea to get involved in campus activities during your first semester
 - b. It is a good idea to get involved, but you should wait until your second semester because it is important to first adjust to the academic demands
 - c. Getting involved with clubs or activities is most important during your junior and senior years because it will look good on your resume
 - d. None of these answers are true
- _____ 7. Professors typically prefer that you get your information for research papers from:
- a. Peer reviewed journals
 - b. The Internet
 - c. Encyclopedias
 - d. None of these are correct
- _____ 8. Where can you find the reason for the study being conducted?
- a. Abstract
 - b. Introduction
 - c. Method
 - d. Discussion

- _____ 9. Conrad's research discusses the issue of intelligence and personality and shows that:
- a. Academic success is based on more than just intelligence
 - b. Only students with really high IQ scores are successful in college
 - c. Personality traits like conscientiousness are not correlated with student success
 - d. Being really neurotic is a lesser known trait that really does connect with student success
- _____ 10. According to research conducted by Waschull (2005), which of the following statements is true?
- a. Students who are self-disciplined and motivated performed the best on-line coursework
 - b. Students who prefer solitary activities performed the best in on-line coursework
 - c. Students with strong technology skills performed the best in on-line coursework
 - d. All of these statements are true
- _____ 11. Sam just failed his first exam in history and he thinks "I am going to fail out of college". To help motivate him, what would a cognitive theorist say to Sam?
- a. Failing the test will likely impact your final grade so you should consider withdrawing from the course
 - b. You will need to study harder for the next exam
 - c. How do you know you will fail out of college?
 - d. Nothing, cognitive theorists would only listen to the problem and not intervene
- _____ 12. Which of the following is a good strategy to increase your self-efficacy?
- a. Take on extremely challenging tasks
 - b. Identify realistic goals within your reach
 - c. Work independently and avoid asking for help
 - d. Avoid mistakes at all costs

- _____ 13. According to the journal article by Morisano, Hirsch, Petersen, Pil and Shore (2010), the importance of students setting goals and success in college is:
- a. Most students who enter college typically do not have very clear goals
 - b. Students who have clear goals are more likely to meet with success in college
 - c. Goals and student success are two very different variables and the research does not link them
 - d. Their findings were inconclusive and more research is really needed to reach a definite conclusion about the relationship between goals and student success
- _____ 14. Mark has the following goal: I will do well this semester. Why is this goal ineffective?
- a. It is not measurable and specific
 - b. It is not realistic
 - c. It does not meet any of the criteria for effective goal setting
 - d. All of these statements are true
- _____ 15. Based on the research conducted by Bowman, et al. (2010),
- a. Students are generally effective at multi-tasking
 - b. Traditional age students are better at multi-tasking than non-traditional age students
 - c. Students who engaged in instant messaging while reading were more efficient than those who only read the material
 - d. Instant messaging while reading resulted in students taking much longer to read the material
- _____ 16. Time logs or diaries can often help college students develop good time management skills by:
- a. Actively encouraging students to develop a study plan and increasing time on academic tasks by being proactive
 - b. Helping students to understand what is and isn't working with their current time management system
 - c. Having a more realistic understanding of how long it actually takes to complete a task, like reading
 - d. All of these statements are true

- _____ 17. The secret to combat procrastination is to:
- a. Break large tasks down into manageable chunks
 - b. Take fewer courses so there is less to do
 - c. Give yourself huge rewards for starting a task
 - d. All of these statements are true
- _____ 18. The decision making model involves:
- a. Six steps that includes identifying goals, gather information, exploring options, evaluating options, deciding and taking action and assessing the choice
 - b. Making a decision based on your gut reaction
 - c. Always consulting with parents or friends about decisions
 - d. Ten carefully designed steps that you can complete in one day
- _____ 19. Which statement best describes the research findings of Gurung (2005) who investigated study environment?
- a. Today's multi-tasking, high technology generation can really do well with music and other distracters while studying
 - b. While friends may distract a student, music and TV seem to actually help students concentrate
 - c. Students who study with friends around and music on perform more poorly than students who study without theses distracters
 - d. Surprisingly, distracters like friend and music leads to higher grades
- _____ 20. An important consideration in learning about money management is to consider the emotion-logic connection which says that:
- a. As our emotions go up about something we want to buy, our logic generally goes down
 - b. It is best to make decisions when we are excited and emotional
 - c. The best decisions are made when logic and emotion are high
 - d. None of these statements are accurate

- _____ 21. Which of the following statements about career decision making is true?
- a. Values and knowing what is important to you is a driving force in career decision making
 - b. It is much more important to consider interests rather than values when making a career decision
 - c. Gathering information about various careers is more important than exploring personal values, interests, and skills
 - d. All of these statements are true
- _____ 22. Informational interviews serve any positive functions for college students including:
- a. Allowing students to have a personal conversation with someone in their prospective field
 - b. A means of gathering real life and in-depth information about a career field
 - c. Allowing students to begin to build career connections and networks
 - d. All of these are true
- _____ 23. Your professor tells you that you should explore your options before committing to a career choice and suggest that you engage in action steps such as doing an internship. Which theorist would be most associated with this point of view?
- a. Drumboltz
 - b. Holland
 - c. Beck
 - d. None of these theorists – everyone believes it is important to decide on a major right from the start
- _____ 24. Stress is unavoidable in our lives, however, there are many effective tools to help deal with stress including:
- a. Joining a fraternity or sorority so that you can attend campus parties and perhaps have a drink or two to relax
 - b. Eating right, exercising and getting a good night's sleep
 - c. Making sure all your work is done before you go to sleep, even if it means pulling an "all nighter"
 - d. Eating at fast food restaurants to save time in meal preparation

- _____ 25. Academic resilience is a term that refers to:
- a. The ability to persevere despite negative academic experiences
 - b. The ability to bounce back even if you have been in an embarrassing or humiliating situation in the classroom
 - c. The ability to overcome roadblocks and academic difficulties to meet with success
 - d. All of these statements describe academic resilience
- _____ 26. Which of the following statements best captures someone with high academic self-efficacy?
- a. I am a good person and try my best
 - b. Others like me and want to help me out
 - c. I believe I can get a good grade on this assignment
 - d. Everything will work out as long as I try
- _____ 27. According to the research, it is most productive to attribute success and failures to factors that are:
- a. Internal and changeable
 - b. Internal and unchangeable
 - c. External and changeable
 - d. External and unchangeable
- _____ 28. According to attribution theory, if you have failed a test and have an internal factor style then you probably believe:
- a. That the exam was just too difficult
 - b. That you were not properly prepared for the test by the teacher
 - c. That the professor just doesn't like you and graded your exam more toughly than others
 - d. That you need to work harder to get ready for the next exam, that if you change your behavior as a student your grade will likely change

- _____ 29. Which of the following is true about having relationships with others from diverse backgrounds and disabilities during your college years?
- a. It is a wonderful way to enrich your college experience and increase your critical thinking skills
 - b. It is probably better to select a college where you know that everyone comes from basically the same background as you so that you fit in and feel comfortable
 - c. There is enough to adjust to in college without the added burden of moving past your comfort zone to include people that are different from you
 - d. Is a wonderful way to expand your support system but does not impact your cognitive skills
- _____ 30. To get the most out of class time:
- a. Read the chapter and other assigned readings prior to class
 - b. Complete all written assignments prior to class
 - c. Ask questions to clarify and expand on what you have learned
 - d. All of these are good ways to actively participate in class
- _____ 31. How did the high performers and low performers differ in the Dickinson and O'Connell (1990) study?
- a. High performers spent significantly more time reading and reviewing
 - b. Low performers spent significantly less time studying and reading
 - c. High performers spent significantly more time studying and using the organizing strategy
 - d. Low performers said they studied, but really didn't spend much time doing so
- _____ 32. Based on the findings of Dickinson and O'Connell (1990), what advice would you give your friend if she wanted to maximize her study time?
- a. Use a color coding system to organize your materials
 - b. Study with a friend so that you can quiz one another
 - c. Read and review your materials over and over again
 - d. Link concepts to one another and put the information into your own words

- _____ 33. Your friend Tru wants to take notes while reading. Which of the following would you tell her to do?
- a. Highlighting is the most active study strategy you can use when reading
 - b. After reading a small section, close the book and take notes on that section
 - c. While reading, copy down key terms
 - d. The only note-taking method that really works when reading is the Cornell Method
- _____ 34. Which of the following statements about long term memory is true?
- a. Long term memory is best during childhood
 - b. Most of our general knowledge is stored in long term memory
 - c. Long term memories usually fade within 6 months
 - d. As you learn more information, you will lose your old memories
- _____ 35. In short term memory most people usually have the capacity to:
- a. Remember sensory information but not content
 - b. Remember only meaningful information
 - c. Remember approximately 5 to 9 items at a time
 - d. Remember information for up to a year
- _____ 36. Chunking is an important and powerful memory strategy. An example of chunking is:
- a. When you try and remember everything you know about a topic as quickly as possible
 - b. When you try and organize information, especially making outlines or other hierarchical strategies
 - c. Keeping a time diary
 - d. A technique that will decrease your short term memory capacity
- _____ 37. Mnemonics are memory strategies that act as a tool to aid in recall. Examples may include:
- a. The use of Acronyms
 - b. The use of Acrostics or sentences
 - c. Creating sentences like “Please Excuse My Dear Aunt Sally”
 - d. All of these are examples of mnemonic devices

- _____ 38. This week, you must learn 15 new terms in your sociology class. To use the technique of chunking, you would need to:
- a. Look for themes or ways to put the terms into different categories
 - b. Create a word from the first letter of each term you need to learn
 - c. Write down the terms and their definitions
 - d. None of these are good examples of chunking
- _____ 39. Which of the following statement best describes the Cornell Method of note-taking?
- a. The notes are primarily taken on the left hand side of the page and then examples are listed at the bottom of the page
 - b. The notes are primarily taken on the left hand side of the page and then examples of important points are listed on the right hand side of the page
 - c. The notes are primarily taken on the right hand side of the page and then examples are listed at the bottom of the page
 - d. The notes are primarily taken on the right hand side of the page and then examples or important points are listed on the left had side of the page and a summary is on the bottom
- _____ 40. If your professor provides you with a copy of the PowerPoint slides, you should:
- a. Write all the notes in your notebook because the act of taking the notes is important
 - b. Breathe a sigh of relief, you can simply sit back and listen to the lecture
 - c. Print out the slides and write down more specific information, especially examples
 - d. Study only what is printed on the slides because that is what your professor thinks is most important
- _____ 41. Larry is using a cognitive strategy to combat test and performance anxiety. Which of the following statements is he making?
- a. "If I fail this exam I will probably fail the course."
 - b. "I can't remember any of the information we covered in class."
 - c. "This test is not important. It doesn't matter how well I do."
 - d. "I did study and do know this material, I just need to breathe and move onto the next question."

- _____ 42. Changing answers in testing is:
- a. Never a good idea, it's best to stick with your original answer
 - b. Usually a good idea, especially if you have a good reason for changing the answer
 - c. Always recommended
 - d. Suggested by student success professionals but not supported by research
- _____ 43. Strategies to narrowing down your topic include:
- a. Completing a literature search to look at sub-topics
 - b. Focusing on specific populations, like college students, children, the elderly
 - c. Work with your professor or college librarian to help you select a topic
 - d. All of these are good strategies
- _____ 44. Which of the following is NOT an effective strategy to evaluate a website?
- a. Determining who posted the information
 - b. Evaluating whether the information provided is balanced and not biased
 - c. Checking for consistency with other scholarly sources
 - d. Looking at whether it is on the top of the list in the results of a Google search
- _____ 45. To avoid plagiarism, you should cite all of the following except:
- a. Paraphrase
 - b. Quotation
 - c. General knowledge
 - d. Specific information about the topic
- _____ 46. During her presentation, Lauren paused and then repeated what she had just said. Which best explains why she did this?
- a. She forgot what she had just said
 - b. She was using the Golden Rule of public speaking
 - c. She was probably trying to emphasize an important point
 - d. The audience was probably not paying attention

- _____ 47. Toni is dreading a group project she has to do with her classmates because she is often the one who does all of the work. What would you suggest to her?
- a. It's best to do all of the work yourself so you are satisfied with the product created
 - b. Creating ground rules and group roles help groups work together productively
 - c. Talk to your professor to see if you can work alone
 - d. Sit back and let others do the work for a change
- _____ 48. You can find ALL of the following in a college catalog EXCEPT:
- a. Syllabi for your classes
 - b. Academic status requirements
 - c. Curriculum requirements
 - d. Course descriptions
- _____ 49. Based on research, what would you recommend to your friend who is starting college:
- a. Work as much as you can because the busiest people are the most productive people
 - b. If at all possible, work under 20 hours a week since this has been associated with better grades
 - c. You should not work at all while you are in college
 - d. There is just no research on this topic so you just need to do what is best for you
- _____ 50. If you are struggling in a course, it is a good idea to meet with:
- a. Your professor
 - b. Your academic advisor
 - c. A counselor
 - d. All of these are good strategies

Answer Key

- | | |
|-------|-------|
| 1. A | 26. C |
| 2. D | 27. A |
| 3. A | 28. D |
| 4. D | 29. A |
| 5. D | 30. D |
| 6. A | 31. C |
| 7. A | 32. D |
| 8. B | 33. B |
| 9. A | 34. B |
| 10. A | 35. C |
| 11. C | 36. B |
| 12. B | 37. D |
| 13. B | 38. A |
| 14. A | 39. D |
| 15. D | 40. C |
| 16. D | 41. D |
| 17. A | 42. B |
| 18. A | 43. D |
| 19. C | 44. D |
| 20. A | 45. C |
| 21. A | 46. C |
| 22. D | 47. B |
| 23. A | 48. A |
| 24. B | 49. B |
| 25. D | 50. D |

SSD 101 Final Exam Fall 2014 - Connection to Outcomes and Content

Learning Outcomes:

Upon successful completion of the program or course, you will be able to

1. Discuss and apply study skills and student success research to daily practices as a college student. 1, 5, 7, 8, 10, 13, 15, 23, 30, 31, 33, 39, 41, 42
2. Identify and critically evaluate information related to success in college. 1, 4, 9, 20, 21, 44, 48
3. Develop personally meaningful oral, visual, and written summaries of student success concepts. Assessed through portfolio assignment
4. Identify and engage in productive and ethical student behaviors. 2, 3, 5, 10, 11, 12, 14, 15, 16, 17, 18, 19, 22, 24, 25, 26, 27, 28, 34, 35, 36, 37, 38, 40, 43, 45, 46, 49, 50
5. Demonstrate effective interpersonal skills in groups and connections outside of the classroom. 6, 29, 47

Course Content Areas:

Getting to Know Middlesex County College:

Campus Website: 48

College Catalog: 48

Resources: (Professors, Tutors, Counselors, Academic Advisors, Library, Student Activities) 50; College Policies 4; Curriculum and Degree Structure 4

Getting Involved: 1, 6, 29

Personal Student Success Factors:

Setting Goals: 13, 14

Motivation: 10, 11

Power of a Positive Mindset: 11, 25, 27, 28

Effective Decision Making: 18, 20, 21, 23

Self-Efficacy: 12, 26

Relationships: 25, 29

Career Exploration: 21, 22, 23

Balancing Work and School: 49

Stress Management: 24

Time Management: 15, 16, 17

Professional and Ethical Behavior: 2, 3, 9, 45

Academic Student Success Factors:

Academic Integrity: 2, 3, 45

Study Strategies: 5, 19, 30, 31, 32

Memory Skills: 34, 35, 36, 37, 38

Note-Taking Strategies: 33, 39, 40

Identifying and Evaluating Information: 8, 44

Writing Papers: 7, 43

Test Taking Behaviors and Strategies: 5, 42

Presentation Skills: 41, 46

Appendix C

Classroom Community Scale

Student ID _____

Directions: Below, you will see a series of statements concerning the course you are presently taking or have recently completed. Read each statement carefully and select the statement that comes closest to indicating how you feel about the course. There are no correct or incorrect responses. If you neither agree nor disagree with a statement or are uncertain, select "Neutral." Do not spend too much time on any one statement, but give the response that seems to describe how you feel. *Please respond to all items.*

1. I feel that students in this course care about each other

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

2. I feel that I am encouraged to ask questions

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

3. I feel connected to others in this course

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

4. I feel that it is hard to get help when I have a question

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

5. I do not feel a spirit of community

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

6. I feel that I receive timely feedback

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

- | | | | | | |
|--|----------------------|----------|---------|-------|-------------------|
| 7. I feel that this course is like a family | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 8. I feel uneasy exposing gaps in my understanding | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 9. I feel isolated in this course | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 10. I feel reluctant to speak openly | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 11. I trust others in this course | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 12. I feel that this course results in only modest learning | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 13. I feel that I can rely on others in this course | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 14. I feel that other students do not help me learn | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
| 15. I feel that members of this course depend on me | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |

16. I feel that I am given ample opportunities to learn

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

17. I feel uncertain about others in this course

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

18. I feel that my educational needs are not being met

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

19. I feel confident that others will support me

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

20. I feel that this course does not promote a desire to learn

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

Appendix D

Interview Protocol

Study Title: Online versus On-Ground: The Effects of Online Delivery of a College Success Course on Student Persistence, Engagement, and Success

Study Topic and Purpose: Classrooms have served as the typical environment for college success courses. With the advent of the internet, these courses are gradually finding their way to the virtual classroom. Recent studies of online learning have consistently reported higher withdrawal rates and lower levels of engagement for students in online courses. This study seeks to understand the experience of students in the online and on-ground college success course in terms of the level and nature of student involvement with the course and how student engagement, as defined by that involvement, may influence student learning outcomes in the course.

Research Questions:

1. What are the outcomes among students in the online and on-ground sections of the college success course in terms of: final exam grades, overall course grades, self-assessment of course learning outcomes, persistence rates, withdrawal rates, and term GPA?
2. What is the level of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the level of involvement influence student outcomes?
 - b. How does this differ by delivery method?
3. What is the nature of involvement among students in the online and on-ground sections of the college success course?
 - a. How does the nature of involvement influence student outcomes?
 - b. How does this differ by delivery method?

Goal: Quantitative data has been the focus of most studies of both online learning and college success courses. The goal of the interviews is to gather qualitative data to document the nature and level of students' involvement with the college success in order to provide a richer and more detailed understanding of online and on-ground students' college success course experience.

Interview Questions:

1. Describe your interactions other students in the college success class.

- a. Who do you interact with and why?
- b. What do you talk about?
- c. Where and when do the interactions take place?
- d. On average, how often do you interact with the other students?

2. Describe your interactions with the instructor of the college success course.

- a. What do you talk about?
- b. Where and when do the interactions take place?
- c. On average, how often do you interact with the instructor?

3. Describe your interactions with college personnel, other than the instructor, in terms of the college success course.

- a. Who do you interact with and why?
- b. What do you talk about?
- c. Where and when do the interactions take place?
- d. On average, how often do you interact with college personnel regarding the college success course?

For online students:

- a. Please describe the last time you were online.
- b. How did you spend your online course time?
- c. Taking into account all course-related work, for example: reading, writing, researching, studying, completing assignments, and group projects, on a weekly basis, how much time do you put into the course, both online and off-line?

For on-ground students:

- a. Please describe your college success course attendance.
- b. How many class sessions have you missed?
- c. Please describe your in-class participation.
- d. On average, how often do you participate?
- e. Taking into account all course-related work, for example: reading, writing, researching, studying, completing assignments, and group projects, on a weekly basis, how much time do you put into the course outside of class?

For both online and on-ground students:

- a. As a result of your enrollment in the college success class, who have you made connections with that will continue once the course has ended?

Appendix E

On-Ground Student Informed Consent (Questionnaires)

You are invited to participate in a study entitled, “Online versus On-Ground: The Effects of Online Delivery of a College Success Course on Student Persistence, Engagement, and Success.” This study is being conducted by Theresa Orosz, a Rowan University doctoral student, in partial fulfillment of her Ed.D. Degree in Educational Leadership.

The study’s purpose is to understand students’ experiences in the online and classroom-based college success course in terms of the level and nature of student involvement with the course and how student engagement, as defined by that involvement, may influence student learning outcomes in the course.

Study participants will agree to:

1. Complete two brief questionnaires: a Student Self-Assessment Survey (five questions) and The Classroom Community Scale (20 questions)
2. Give the researcher permission to review your SSD 101 (Student Success) final exam results, class attendance record, and demographic, academic, and registration data in Middlesex County College’s student information system.

Your participation is voluntary and you do not have to complete all of the questions. Your responses and all data gathered will be confidential. Your SSD 101 instructor will not have access to your individual questionnaire responses. As the researcher, I may use information obtained from this study in any way thought best for publication or education, provided that you are not identified and your name is not used.

There are no physical or psychological risks involved in this study. Your participation (or non-participation) in this study will have no effect on your standing in the SSD 101 course or the College. If you choose to participate, you will receive extra credit for your SSD 101 course. You are free to withdraw your participation at any time without penalty.

Questions about your participation in this study should be directed to Theresa Orosz, at 732-906-2533 or TOrosz@middlesexcc.edu. My office is located on the Edison campus of Middlesex County College in L’Hommedieu Hall, 212. Questions can also be directed to my dissertation chairperson, Dr. Patricia Donohue, at 609-586-4800, ext. 3613 or donohuep@mccc.edu. Questions about your rights as a research subject should be directed to the Associate Provost for Research, Rowan University Institutional Review Board for the Protection of Human Subjects, Office of Research, 201 Mullica Hill Road, Glassboro, NJ 08028-1701, 856-256-5150.

I understand the nature of this study, acknowledge that I am 18 years of age or older, and agree to participate.

Name of Participant (Print)

Signature of Participant

Date

Name of Researcher (Print)

Signature of Researcher

Date

Appendix F

On-Ground Student Informed Consent (Interview)

You are invited to participate in an interview as part of a study entitled, “Online versus On-Ground: The Effects of Online Delivery of a College Success Course on Student Persistence, Engagement, and Success,” which is being conducted by Theresa Orosz, a Rowan University doctoral student, in partial fulfillment of her Ed.D. degree in Educational Leadership.

The study’s purpose is to understand students’ experiences in the online and classroom-based college success course in terms of the level and nature of student involvement with the course and how student engagement, as defined by that involvement, may influence student learning outcomes in the course.

Participation is voluntary. You do not have to respond to all of the interview questions and you can end the interview at any time. Participants will earn extra credit for their SSD 101 (Student Success) course. There are no physical or psychological risks involved in this study. Your participation (or non-participation) in this study will have no effect on your standing in the SSD 101 course or at Middlesex County College.

Your responses will be kept anonymous and your confidentiality as an interviewee will remain secure. Your SSD 101 instructor will not have access to your interview responses. Information obtained during the interview will be used by me, in my capacity as a researcher, in any way thought best for publication or education purposes, provided you are not identified and your name is not used. Where needed, pseudonyms will be used. The interview will be conducted over the phone. It will be recorded and will take approximately 20 minutes. Additionally, I may take notes during the interview.

Questions about your participation in this study should be directed to Theresa Orosz, at 732-906-2533 or TOrosz@middlesexcc.edu. My office is located on the Edison campus of Middlesex County College in L’Hommedieu Hall, 212. Questions can also be directed to my dissertation chairperson, Dr. Patricia Donohue, at 609-586-4800, ext. 3613 or donohuep@mccc.edu. Questions about your rights as a research subject should be directed to the Associate Provost for Research, Rowan University Institutional Review Board for the Protection of Human Subjects, Office of Research, 201 Mullica Hill Road, Glassboro, NJ 08028-1701, 856-256-5150.

Your signature on this form grants the researcher, Theresa Orosz, permission to record you as described above during participation in the above-referenced study. The researcher will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

I understand the nature of this study, acknowledge that I am 18 years of age or older, approve of the use of digital audio recording during the interview, and agree to participate.

Name of Participant (Print)

Signature of Participant

Date

Name of Researcher (Print)

Signature of Researcher

Date

Appendix G

Student Information Sheet

				Best Way to Contact (check one)	
Last Name	First Name	Email Address	Phone	Phone	Email

Appendix H

Online Student Invitation (Questionnaires)

Dear _____,

You've been learning about research studies, here is an opportunity to be part of one!

My name is Theresa Orosz and I would like to invite you to participate in a study entitled, "Online versus On-Ground: The Effects of Online Delivery of a College Success Course on Student Persistence, Engagement, and Success." I am conducting this study in partial fulfillment of my Ed.D. Degree in Educational Leadership at Rowan University.

The study will involve completing two brief questionnaires and giving me permission to review your SSD 101 final exam results, online activity log, and demographic, academic, and registration data in MCC's student information system.

Your participation (or non-participation) in this study will have no effect on your standing in the SSD 101 course or the College and your SSD instructor will not have access to your questionnaire responses. If you choose to participate, you will receive extra credit for your SSD 101 course.

If you are 18 years of age or older and would like to participate, you can access the online questionnaires using the class dashboard.

If you are under the age of 18 and would like to participate, please do not complete the online questionnaires at this time. Instead, contact me by phone or email for further instruction.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Theresa Orosz
Assistant Dean
Division of Arts & Science
Middlesex County College
732.906.2533

Appendix I

Embedded Alternate Consent Form

You are being invited to participate in a pilot study to test two questionnaires and a data collection procedure that will be used in a research study later this fall to explore the level and nature of students' involvement in online and on-ground sections of MCC's SSD 101 course. This study is being conducted by Theresa Orosz, a Rowan University doctoral student, in partial fulfillment of her Ed.D. Degree in Educational Leadership.

As part of the study you agree to:

1. Complete two brief questionnaires: a Student Self-Assessment Survey (five questions) and the Classroom Community Scale (20 questions).

Your participation is voluntary and you do not have to complete all of the questions. Your responses and all data gathered will be confidential. Your SSD instructor will not have access to your individual questionnaire responses. As the researcher, I may use the information obtained from this pilot study in any way thought best for publication or education purposes, provided that you are not identified and your name is not used.

There are no physical or psychological risks involved in this study. Your participation (or non-participation) in this study will have no effect on your standing in the SSD 101 course or the College. If you choose to participate, you will receive extra credit for your SSD 101 course.

Questions regarding your participation in this study should be directed to Theresa Orosz at 732.906.2533 or TOrosz@middlesexcc.edu. My office is located on the Edison campus of Middlesex County College in L'Hommedieu Hall, 212. Questions concerning your rights as a research subject should be directed to the Associate Provost for Research at: Rowan University Institutional Review Board for the Protection of Human Subjects, Office of Research, 201 Mullica Hill Road, Glassboro, NJ 08028-1701, 856-256-5150.

By beginning the questionnaires, you acknowledge that you are 18 years of age or older, have read this information and agree to participate in this study, with the knowledge that you are free to withdraw your participation at any time without penalty.

If you are under the age of 18 and wish to participate in the study, do not begin the questionnaires at this time. Instead, please contact Theresa Orosz at the phone number or email listed above for further instruction.

Appendix J

Online Student Invitation (Interview)

Dear _____,

Last week you were invited to participate in a study and earn extra credit for your SSD 101 course by completing two questionnaires. As part of the same study, I will be conducting telephone interviews to better understand students' experiences in the online SSD 101 course.

The interview will take approximately 20 minutes and will be recorded. Your participation (or non-participation) in the study will have no effect on your standing in the SSD 101 course or the College and your SSD instructor will not have access to your responses to the interview questions.

Your participation is voluntary, however if you decide to be interviewed you will earn extra credit for your SSD 101 course. This extra credit is separate from the extra credit you can earn if you also complete the surveys.

If you would like to be interviewed, please respond to this email using your Campus Cruiser account and provide me with your phone number and a day and time that is most convenient for you. There are two attached informed consent forms (for students 18 years of age or older and for students under the age of 18). Please complete the appropriate form and attach it to your email response.

In order to earn the extra credit, the interview must be completed before December 12.

If you have any questions, please feel free to contact me by phone or email. Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Theresa Orosz
Assistant Dean
Division of Arts & Science
Middlesex County College
732.906.2533

Appendix K

Alternate Informed Consent

I agree to participate in an interview as part of a study entitled, “Online versus On-Ground: The Effects of Online Delivery of a College Success Course on Student Persistence, Engagement, and Success,” which is being conducted by Theresa Orosz, a Rowan University doctoral student, in partial fulfillment of her Ed.D. degree in Educational Leadership.

The purpose of this study is to understand the experience of students in the online and classroom-based college success course in terms of the level and nature of student involvement with the course and how student engagement, as defined by that involvement, may influence student learning outcomes in the course.

Participation is voluntary. You do not have to respond to all of the interview questions and you can end the interview at any time. Participants will earn extra credit for their SSD 101 course. There are no physical or psychological risks involved in this study. Your participation (or non-participation) in this pilot study will have no effect on your standing in the SSD 101 course or the College.

Your responses will be kept anonymous and your confidentiality as an interviewee will remain secure. Your SSD instructor will not have access to your interview responses. Information obtained during the interview will be used by me, in my capacity as a researcher, in any way thought best for publication or education purposes, provided you are not identified and your name is not used. Where needed, pseudonyms will be used. The interview will be conducted over the phone. It will be recorded and will take approximately 20 minutes. Additionally, I may take notes during the interview.

If you have any questions concerning your participation in this study, you may contact me, Theresa Orosz, at 732-906-2533 or TOrosz@middlesexcc.edu. My office is located on the Edison Campus of Middlesex County College in L’Hommedieu Hall, 212. For questions concerning your rights as a research subject, contact the Associate Provost for Research at: Rowan University Institutional Review Board for the Protection of Human Subjects, Office of Research, 201 Mullica Hill Road, Glassboro, NJ 08028-1701, 856-256-5150.

If you wish to participate, please complete the statement below and return the form by email to me by 11/28/14:

☐ I understand the nature of this study, acknowledge that I am 18 years of age or older, approve of the use of digital audio recording during the interview, and agree to participate.

Name: [Click here to enter text.](#)

[Click here to enter a date.](#)