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First Steps to College and Career Success: Predictors of Recent High School Graduate Readiness for Online Learning

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The University of Southern Mississippi
FIRST STEPS TO COLLEGE AND CAREER SUCCESS:
PREDICTORS OF RECENT HIGH SCHOOL GRADUATE
READINESS FOR ONLINE LEARNING

by

Laura Mae Pannell

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2013

ABSTRACT

FIRST STEPS TO COLLEGE AND CAREER SUCCESS: PREDICTORS OF RECENT HIGH SCHOOL GRADUATE READINESS FOR ONLINE LEARNING

by Laura Mae Pannell

May 2013

The purpose of this study was to examine a number of factors related to traditional student online course readiness at a large community college prior to state initiated K-12 curriculum design initiatives, NCLB possible exemptions, passage of Senate Bill 2792, and possible future virtual charter school laws. This study analyzed the traditional college freshmen students' perceptions in several areas related to online learning. This study included surveys completed by 143 traditional online students at a community college. The study examined the students' perceptions of self-management of online learning, comfort of online learning, reported differences between males and females in the students' perceptions of self-management of online learning, reported differences between males and females in the students' perceptions of comfort of online learning, and self-reported experience with online learning in the K-12 environment in advance of the implementation of aforementioned initiatives in the state proposed for the study.

Results from the study demonstrated that gender differences were reported in both comfort of online learning and self-management of online learning. Interestingly, females reported higher levels of both comfort of online learning and self-management of online learning as compared to males. There were no reported statistically significant

differences between study participants who had prior K-12 online experience as compared to those who did not. Similar results were reported in the area of the type of prior K-12 online experience with no statically significant differences between study participants who had prior K-12 online experience as compared to those who did not. Finally, results from an examination of student characteristics supported earlier reported research of the two constructs of comfort of online learning and self-management of online learning. The majority of online students in this study selected *most of the time* or *all of the time* to the McVay survey items.

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2013

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A Dissertation
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CHAPTER I

INTRODUCTION

“The WWW has caused the biggest change in education and learning since the advent of the printed book a little over 500 years ago” (Draves, 2000, p.7).

While the terms to describe learning at a distance have changed, online learning, or eLearning, has become the fastest growing method of delivering education today in secondary, postsecondary, and career educational settings (Cejda, 2007; Collins, McKinnies, & Collins, 2010). This growth has been fueled by a number of factors including the expansion of the Internet, coupled with the accessibility and affordability of personal technology devices. The use of the Internet as an avenue for teaching and learning has provided opportunities and challenges for serving diverse populations (Larreamendy-Joerns & Leinhardt, 2006).

One challenge facing primary and secondary (K-12) educational leaders is the readiness of today's students to transition from traditional secondary education to the postsecondary college or career settings where they will most likely need to navigate online courses successfully (Boykin, Dougherty, & Lummus-Robinson, 2010). While many educators and students may think of online learning as a new avenue for educational instruction, a review of the literature demonstrates that learning at a distance has a long and varied history in the United States.

Casey (2008) described the first distance learning course offered in 1852, a correspondence shorthand training course, using the United States Postal Service. From that humble beginning, learning at a distance has evolved to meet the changing needs of a global educational population, including continuous access (24/7) through mobile technology. With many states now passing legislation or state education departments

requiring some form of distance education as a requisite of the K-12 experience, primary and secondary educational leaders find themselves charged with the task of providing online learning in a setting that is unprepared and understudied for this 24/7 mobile learning environment.

Allen and Seaman (2011) reported that over 6.1 million postsecondary students were taking at least one online course in the fall of 2010, representing an increase of over 560,000 students from the fall of 2009. This report also tracked the enrollment trends of online learning from 2003, demonstrating consistent annual growth. The 10% growth rate for online enrollments far exceeds the less than 2% growth of the overall higher education student population, according to Allen and Seaman (2011). The trends among K-12 online learning are not as impressive, although some growth has been noted. One of the first national studies examining online learning in the K-12 environment was conducted by Picciano and Seaman (2007). The results of this study revealed that state departments of education are beginning to embrace online learning in a variety of ways, including curriculum change implementation and starting statewide virtual public schools. While those surveyed overwhelmingly indicated interest in online learning, the decision to offer online courses generally remains at the state and local levels where many leaders report little knowledge of how online learning works, including how students learn in this format and how to plan, budget, and implement a successful program (Watson & Ryan, 2007).

While online learning has evolved rapidly in the past decade, so must high school graduates and educational leaders evolve to maneuver successfully in the online educational and work environment. Beaudoin (2003) described a need for new leaders

who are not burdened by the traditional mentality that may prevent the acceptance of online learning.

The focus of educational institutions is shifting away from the storage and conservation of knowledge to that of information navigation and acquisition (Bothel, 2001). Jukes, Crockett, and McCain (2010) argued, that for many leaders, the lack of experience in technology, coupled with the burden of the past, is preventing many educational leaders from moving forward into providing the tools and skills needed by today's students. The solutions that worked even 10 years ago will not work today because today's students operate at a different speed than students of 10 or 20 years ago. A 2010 report entitled *Who's Online: Internet User Demographics* Pew Research Center's *Internet & American Life Project* by the Pew Research Center revealed that 95% of Millennials own cell phones and over half own personal computing devices. Also, the report commented that "Millennials are by far the most likely group not only to own most of the devices we asked about, but also to take advantage of a wider range of functions" (p. 2). Multitasking is second nature to this generation of primary and secondary students. Marc Prensky (2010), in his book, *Teaching Digital Natives: Partnering for Real Learning*, stated that "Today's students want to learn differently than in the past... learning ways that make good use of the technology they know is their birthright" (p. 3). This different style of learning is a challenge for Generation X leaders who did not grow up with technology as part of everyday life (Jukes et al., 2010; Prensky, 2010).

Susan Patrick, President of the North American Council for Online Learning (NACOL), wrote in the forward of the 2010 NACOL report *A National Primer on K-12 Online Learning*:

It is troubling that 84% of employers say K-12 schools are not doing a good job of preparing students for the workplace.... As a nation we have to do better, and research shows that online learning provides the interactive, collaborative and self-paced learning environments where students can gain the skills needed to succeed. (Watson & Ryan, p.1)

Although not every student is enrolled in an online class, it may be in his or her future. This is especially true for the state proposed for the study. Senate Bill 2792, *An Act To Amend Section 37-15-38, Mississippi Code Of 1972, To Authorize Students To Dually Enroll In Their Home High School And A Local Community College*, was introduced and passed. This legislation could potentially increase the availability of online courses through partnerships between community colleges and secondary schools. In addition, Senate Bill 2294, *Mississippi Digital Learning NOW Act (2012)*, which did not pass during the 2012 legislative session, would have established virtual charter schools, but, more importantly, the proposed legislation required all high school graduates to have completed a minimum of one online or hybrid course as a graduation requirement beginning with the 2014-2015 academic year. As the 2013 legislative year opens, new charter school legislation is being considered.

Christensen, Horn, and Johnson (2008) predicted that over half of high school courses will be delivered online by 2019. The importance for leaders to assist in the readiness for high school graduates for online learning is emphasized by Glass (2010):

Although exact figures are hard to come by, online instruction provides all or part of the formal schooling for nearly one in every 50 students in the United States today. A few states, Alabama and Michigan among them, even require high

school students to experience at least one such course before receiving their diplomas. (Glass, p. 33)

The trend is no different in the postsecondary setting. Among postsecondary institutions, Allen and Seaman (2011) reported a continued track record of growth in online learning among postsecondary institutions. They stated that the number of students taking at least one online course has far outpaced the rate of growth for the overall higher education student population. These facts are especially true in rural states for both secondary and postsecondary schools. Picciano and Seaman (2007) reported that small rural school districts voiced strong support for the expansion of distance learning in the K-12 setting. This support was based upon the need for small rural districts to have the opportunity to expand course offerings and, in some cases, provide core curriculum for college-bound students. Johnson and Strange (2007) and Murray and Cunningham (2004) reported that 60% of all community colleges and one in five school-aged children are based in rural areas. Therefore, online learning could be a viable option for students in rural areas where educational offerings may be a challenge.

Most educational leaders agree that online learning delivered successfully requires more than an Internet connection. The Southern Association of Colleges and Schools (SACS) has recognized the need to address online learning and recently updated the SACS Distance Learning Policy Statement and Guidelines in December 2011. These standards include items such as

The institution must demonstrate that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course or program and receives the credit by verifying the identity of a student who participates in class or coursework by using, at the

option of the institution, methods such as (1) a secure login and pass code, (2) proctored examinations, and (3) new or other technologies and practices that are effective in verifying student identification. (Southern Association of Colleges and Schools, p. 6)

This standard is interesting in that online students are required to provide identifying information such as school identification cards or drivers license, but traditional students are not required to provide this same identifying information when attending class or taking exams. With regard to online course curriculum and design compared to traditional courses, SACS standards state

Comparability of distance and correspondence education programs to campus-based programs and courses is ensured by the evaluation of educational effectiveness, including assessments of student learning outcomes, student retention, and student satisfaction. (Southern Association of Colleges and Schools, p. 6)

In addition to addressing quality and effectiveness of the curriculum, success in online learning also requires an understanding of student readiness for online learning. Student readiness for online learning has been explored since the mid-1990s, beginning with examinations of students enrolled in televised courses. A number of researchers began conducting more research in the late 1990s as Internet delivered courses began to grow. Two constructs began to evolve as a result of the research. These areas included comfort of online learning and self-management of online learning (McVay, 2001; Smith, Murphy, & Mahoney, 2003; Smith, 2005). More recent research has focused on possible differences based upon gender (Poellhuber & Anderson, 2011). Finally, of interest are any differences related to prior exposure to online learning during the K-12 experience.

Research involving today's secondary students begins with the definition of this group of individuals referred to as Generation Y. Reaching Generation Y students requires an understanding of the generation as a whole. Researchers characterize this group as students born between 1981 and 1996. This generation is also referred to as the Millennial Generation (or Millennials), Generation Next, or Net Generation. They are characterized as very comfortable with technology and very person-centered as the result of being nurtured during childhood. Management consultant and leadership author Mark Buckingham (2006) stated the following in an interview for *Training + Development Magazine*:

There's no question that one of the challenges today is how to engage Generation Y, the millennial generation. They are manifestly different from Generation X, my generation. They're much more optimistic and entrepreneurial, and they're much more tech savvy.... Generation Ys got prizes for graduating from first grade, for coming in eighth in a race, or just for just showing up. They are the most rewarded, recognized, and praised generation in living memory.

(Buckingham, p. 27)

Generation Y students are more comfortable with technology, but a few researchers question if comfort equals readiness and engagement. Some researchers have linked several of the characteristics of successful online learning to include active engagement in their own learning, self-management, and comfort with technology (Boyd, 2004). Marc Prensky (2010) described a new way of learning that is supported by some of these learning theorists. Prensky discussed the role of students as self-motivated partners in their education, taking on the role of a technology expert, researcher, self-teacher, and

world changer. These notions have long been supported by a number of theorists including Abraham Maslow and Harold Gardner.

Maslow's Need Hierarchy Theory argues that self-motivation is inside the individual (Maslow, 1968). His Hierarchy of Needs Theory is based on what Maslow believed to be the basic needs that control human behavior. His theory is often depicted as a pyramid, prioritized with the most basic human needs at the bottom, and the individual works toward the top priority of self-actualization. Motivation serves as the catalyst for pursuing the highest level. Gardner (1983) put forth his original Theory of Multiple Intelligences in his 1983 book *Frames of Mind: The Theory of Multiple Intelligences*. According to Gardner's original theory, individuals possess eight different types of intelligence that reflect unique ways of interacting with the individual's environment. Each individual has a distinctive profile. While each individual possesses all eight intelligences, no two individuals have them in the same exact configuration or possess the same level of motivation. Both Prensky and Gardner continue to research and write about Generation Y and their impact on education and educational leaders.

Recent research has also examined the link between learning and gender. Meece, Glienke, and Burg (2006) examined gender and motivation. While this study did not examine the online environment, it is interesting to note the findings. The authors reported that gender was not found to be a strong predictor of behavior responses. Further, Meece et al. (2006) revealed that while gender no longer appeared to be a predictor in student academic success, self-efficacy remained an important predictor. Results from studies examining gender in the online environment have been mixed. Care and Udod (2000) and Astleitner and Steinberg (2005) advocated more studies of gender differences in online learning. Astleitner and Steinberg (2005) stressed the need to

examine gender in comparison with other online learning characteristics, rather than gender in isolation, as reported in many early studies (Felix, 2001; Kadijevich, 2000; Ory, Bullock, & Burnaska, 1997).

There has been almost no research that examines K-12 online experience with readiness for online learning in a college or career setting. One recent study conducted in Canada found that students who completed online courses as part of the K-12 experience were more likely to continue with college courses, but causal factors were not conclusive (Dodd, Kirby, Seifert, & Sharpe, 2009). Recent increases in market demand for secondary online courses by parents and students may fuel more research in this area, but almost no research exists currently demonstrating any linkage between secondary and postsecondary online learning experiences.

For the purposes of this study, a number of factors were examined: self-management of online learning, comfort of online learning, gender differences with self-management and comfort of online learning, prior experience with online learning as part of the K-12 environment, and the type of prior experience with online learning as part of the K-12 environment. The theoretical basis of this study for self-management of online learning and comfort of online learning lies in the landmark research conducted by Marguerita McVay Lynch. Her groundbreaking 2001 book, *How to Be a Successful Distance Learning Student: Learning on the Internet*, was based upon the results of her research. McVay developed a student-friendly survey instrument that examined the students' self-management (time commitment, self-directed, self-disciplined) and comfort of online learning (discussion boards, interaction, computer skills). This instrument was validated by Smith et al. (2003) who also noted the two-factor structure including self-management of learning and comfort of online learning. According to Smith et al., "The

McVay questionnaire describes a readiness for engagement with the particular form of resource-based learning delivery that is online” [and the identification of] “the need for self-direction in learning” (p. 63).

Smith (2005) later repeated the study and demonstrated that the McVay survey was a reliable and valid instrument for measuring two factors: self-management of learning and comfort of online learning. McVay's self- management of learning factor shares a commonality with a number of other instruments, and, according to Smith (2005), “the McVay instrument factor structure also had the attraction of being interpretable within an existing body of similar research and theory, but within the more specialized context of e-learning” (p. 4).

The proposed study outlined in this paper used the 13 question McVay instrument validated by Smith et al. (2003) and Smith (2005). Additional early studies that have examined student readiness for online learning include Mattice and Dixon (1999) who developed an instrument to assess student interest and readiness for online learning. While interesting, this instrument did not look at self-management. With later research indicating that self-management was a driving factor in student success in online learning courses, Bernard, Brauer, Abrami, and Surkes (2004) sought to develop and validate a survey instrument that looked at general learner characteristics. Later, Mupinga, Nora, and Yaw (2006) conducted a study that examined learner characteristics of online learning students based upon the Myers-Briggs survey. Current research by B. Dray (personal communication, October 10, 2011) is testing a new assessment for online learning, but this research so far has been limited to graduate students.

Prensky (2012) wrote that communication has evolved in the past decade and the use of media to communicate one-to-one and one-to-millions will continue to grow with

mobile phone technology, texting evolution, and video clips and that the impact on education will be significant. Findings from the research may be beneficial to K-12 educational leaders who find themselves facing the likelihood of some expansion of online courses in the secondary environment, either through dual-enrollment options or through student/parent demand. Finally, past enrollment in online courses, as part of the K-12 experience, will also be of interest to K-12 leaders as these leaders seek to link online learning to college and career readiness.

Statement of the Problem

While access to and enrollment in postsecondary online education may be growing, there is little research regarding how high school graduates transition to an online college environment (Roblyer, 2006). Secondary leaders struggle to keep up with the changing pace of education design and delivery, higher demands of accountability from taxpayers and government entities, and the speed at which technology is changing the way students learn (Darrow, 2010). Secondary leaders are seeing a transition in which students and parents may select online learning as part or perhaps the whole of the educational experience. This is especially true in the state proposed for this study. This state is experiencing significant changes based upon a number of initiatives to redesign the curriculum undertaken by the State Department of Education beginning in 2004. These curriculum impact initiatives include the *Common Core State Standards (CCSS)*, *Excellence for All (EFA)*, *College and Career Readiness (CCR)*, and the implementation of *High School Redesign (HSR) Initiatives* (D. Millender, personal communication, October 4, 2011). Like a number of other states, this state's department of education filed for an exemption to the No Child Left Behind Act of 2001 (NCLB) in February 2012.

Secondary leaders in this state are also charged with implementing Senate Bill

2792, which was passed during the 2012 legislative session. This new law could potentially increase the availability of online courses through partnerships between community colleges and secondary schools. In addition, lawmakers in the state proposed for this study put forth legislation in 2011, Senate Bill 2294, that would have established virtual charter public schools and requirements for online or hybrid learning experience as part of high school graduation requirements. This bill did not pass; however, charter school legislation has been reintroduced during in the 2013 legislative session.

Secondary leaders in this state may no longer view online learning as optional. Online learning will be a part of the secondary into postsecondary experience in this state.

Research into the transition of students into the online environment will help secondary leaders prepare more effectively for these students.

Purpose of the Study

The purpose of this study was to examine a number of factors related to traditional student online course readiness at a large community college prior to state initiated K-12 curriculum design initiatives, NCLB possible exemptions, passage of Senate Bill 2792, and possible future virtual charter school laws. This study analyzed the traditional college freshmen students' perceptions in several areas related to online learning. This study occurred by examining the students' perceptions of self-management of online learning, comfort of online learning, reported differences between males and females in the students' perceptions of self-management of online learning, reported differences between males and females in the students' perceptions of comfort of online learning, and self-reported experience with online learning in the K-12 environment in advance of the implementation of aforementioned initiatives in the state proposed for the study.

Hypotheses/General Research Questions

Overall, are high school graduates ready for the transition from traditional secondary education to the postsecondary academic or career/technical setting where they will most likely need to navigate successfully online learning course(s)?

The following six research hypotheses were tested:

H1: There is a statistically significant difference in self-management of online learning between males and females.

H2: There is a statistically significant difference in comfort of online learning between males and females.

H3: There is a statistically significant difference in self-management of online learning between students who took an online learning course as part of their K-12 experience and those who did not.

H4: There is a statistically significant difference in comfort of online learning between students who took an online learning course as part of their K-12 experience and those who did not.

H5: There is a statistically significant difference in self-management of online learning among the types of online courses taken as part of their K-12 prior experience.

H6: There is a statistically significant difference in comfort of online learning among the types of online courses taken as part of their K-12 prior experience.

The following two research questions were examined:

R1. What are the reported perceptions of self-management of online learning among recent high school graduates enrolled in online courses at a community college?

R2. What are the reported perceptions of comfort of online learning among recent high school graduates enrolled in online courses at a community college?

Definition of Terms

Asynchronous - Not occurring at the same time (Watson & Ryan, 2007).

College and Career Readiness (CCR) - partnerships with K-12 and state community colleges. In addition, the initiative is linked to 16 national Science, Technology, Engineering, and Mathematics Education Coalition (STEM) programs (Mississippi Pathways to Success, n.d.).

Comfort of online learning - Student's willingness to connect with others via electronic means such as email, discussion boards, etc. and comfort accessing resources and information for learning through electronic media (McVay, 2001; Smith, 2005).

Common Core State Standards (CCSS) – The Common Core State Standards Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). The standards provide a clear and consistent framework to prepare children for college and the workforce (Common Core State Standards Initiative Home, n.d.).

Excellence for All (EFA) - a national program piloted in four states that is designed to assist students to transition as soon as the junior year to college level courses (Mississippi Pathways to Success, n.d.).

Exposure - For the purposes of this study, exposure equals experience.

Generation X - Those individuals born between 1964 and 1981; most well-educated generation according to the U.S. Census Bureau (n.d.).

Generation Y - Those individuals born between 1981 and 1996. Also referred to as the Millennial Generation (or Millennials), Generation Next, or Net Generation, characterized as very comfortable with technology.

High School Redesign (HSR) Initiatives - A program to infuse innovative courses that “apply the curriculum in relevant, practical ways and encourage a higher-level of thinking” (Kent, 2012, p.12).

Online learning or eLearning - Courses offered by electronic means in which the instructor and student are separated by time and/or distance via the World Wide Web and at least 80% of the course is delivered online.

Self-management of Online Learning - Student's willingness to self-manage or take control of his or her own erudition in the online environment (McVay, 2001; Smith, 2005).

Social software - Networking tools used for sharing, supporting, and socializing (Jones & Thomas, 2007).

Synchronous - Occurring at the same time (Watson & Ryan, 2007).

Virtual School - Programs that provide online courses to schools. Usually includes the full combination of course content, teacher, and possibly a learning management system that together provide a fully online course that can be accessed by students. The service may be provided by the individual school, school district, state, or private vendor.

Delimitations

The delimitations of this study were as follows:

1. The perceptions that were gathered were limited to those of students enrolled in a large community college in a southern state in the United States.

2. The perceptions that were gathered were limited to those of students who were enrolled in at least one online course who had graduated from high school within the past 18 months.

3. The perceptions of the students were only how the students felt at the time they answer the survey questions.

Assumptions

This study was conducted with the assumption that all students who provided answers and feedback from the survey acted honestly and described their true perceptions of online learning.

Justification of the Study

An August 17, 2011, report released by American College Testing (ACT) indicated that the proposed state for the study had the lowest "college readiness" ACT scores of any state in the U.S. (The Condition of College & Career Readiness 2011, p.25). Approximately 90% of this state's students fell below ACT's benchmark scores as compared to 25% nationally. The state's department of education has a number of initiatives in place including College and Career Readiness, *Excellence for All*, Common Core Standards, and a High School Redesign Initiative. The state also filed for an exemption to the NCLB in February 2012.

Lawmakers in the state introduced several bills that would impact primary and secondary education in the state proposed for this study during the 2012 legislative session. Senate Bill 2792 was introduced and passed during the 2012 legislative session. This legislation could potentially increase the availability of online courses through partnerships between community colleges and secondary schools. Senate Bill 2294 (2012) was introduced as part of the 2012 legislative session in the state proposed for this

study and would enable the formation of a virtual charter public school. The most significant part of this proposed legislation is that it would require at least one course to be completed online for high school graduation. The legislation did not pass during the 2012 session but a similar bill has been introduced during the 2013 session. The 2013 version of the charter school bill (House Bill 369) was passed by the State House of Representatives. House Bill 369 does not contain any language related specifically to online learning. This bill has been submitted to the State Senate for consideration.

The State Department of Education began an aggressive initiative to redesign the state's curriculum in 2004. This process began with language arts and moved through mathematics with a focus on vertical and horizontal alignments. This process took three years with final approval in 2008. A number of stakeholders have been involved with the process, including but not limited to the Council of Chief State School Officers, the National Governor's Association, and the Common Core State Standards Initiative. Educational leaders in the state operate under what is commonly known as Common Core State Standards (CCSS), and students are instructed based upon standards and assessments set forth by state and federal mandates. In addition, the students proposed in this study reside in a state that is a member of the *Partnership for Assessment of Readiness for College and Careers (PARCC)* and *Smarter Balance* (Mississippi Pathways to Success, n.d.). PARCC reported that its assessments will cover “the full range of the content and skills called for in the English Language Arts/Literacy and Mathematics Common Core State Standards” (Partnership for Assessment of Readiness for College and Careers, p.22). While secondary leaders struggle to keep up with the demands of subject area tests and fundamental changes in the design and delivery of courses (CCSS and HSR), the fact remains that high school graduates are more likely

than ever to encounter online learning either in the higher education or career setting (Sugru & Rivera, 2005).

A U.S. Department of Education summary of online learning (Means, Toyama, Murphy, Bakia, & Jones, 2010) revealed an extremely small number of studies involving online learning and K-12 and the need for further research. The proposed study will make a contribution to the field of educational leadership and secondary administration by evaluating student readiness for online learning through an examination of the perceptions of self-management of learning and comfort of online learning. In addition, the research included an examination of past skills with online learning as part of the K-12 experience. The results of this study will add significantly to the body of research by providing an examination of traditional student readiness for online learning at a time when the majority of secondary graduates will be experiencing online learning as part of their postsecondary educational and career paths. The results of the study will also provide the basis for possible future research that could include a comparison of these measures before and after the major CCSS, EFA, CCR, and HSR initiatives by the state department of education and the possible impact of state legislation are felt.

The purpose of the study was to provide a baseline of the students' readiness for online learning by examining the students' perceptions of self-management of learning and comfort of online learning in advance of the implementation of the CCSS, EFA, CCR, and HSR initiatives in the state proposed for the study. The study utilized the McVay Readiness Survey, a validated survey utilized to examine perceptions of self-management of learning and comfort of online learning among similar groups.

The study examined possible gender differences related to comfort and self-management of online learning. The study also looked at the students' comfort of online

learning and self-management of online learning in the context of prior exposure to online learning in the K-12 environment. For this study, the target group included recent high school graduates who were enrolled in at least one online learning course at a community college located in a rural southern state. This community college was selected because it draws a large number of traditional high school graduates and is located in a rural area that mirrors national growth data for online learning enrollment. It is proposed that this study be replicated in 2 to 3 years once the CCSS, EFA, CCR, HSR, and possible virtual charter school initiatives in the state have been implemented, and that a comparison of the results of both studies be performed. It will also be of interest to note the proposed study findings in light of the passage of Senate Bill 2792 since this newly-enacted legislation involves dual-enrollment of secondary students in community colleges, with online learning as an option. This study contributes to the limited body of knowledge and research in the field by providing a baseline examination of a specific demographic consisting of recent secondary graduates and their readiness to transition to the online learning college environment in a rural setting.

Summary

While the development and delivery of online courses have seen exponential growth, the research on the readiness of traditional high school graduates to take online classes has lagged behind. The myriad of issues facing secondary education leaders may not include online learning at the top of the list, but the fact remains that students leaving the secondary setting today will most likely encounter online learning in either a postsecondary setting or a workplace setting. The recent consideration of the virtual charter school bill by the state legislature and the application of the state to be exempt from NCLB are all considerations but do not alter the reality of the usage of technology

by today and tomorrow's students. It is, therefore, important for educational leaders to understand the factors associated with the readiness of students to take an online class as part of the preparation of college and career readiness. This study provides a baseline to determine traditional student readiness for online courses, prestate department of education initiatives, and pre-Senate Bill 2792 implementation.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The purpose of this review is to explore the research and literature pertinent to traditional college freshman students' readiness for online learning. This will be accomplished by examining students' perceptions of self-management of learning, comfort of online learning, and gender differences and prior K-12 online course experiences in advance of the implementation of state department of education-led initiatives. This review begins with an overview of online learning in the United States, including the history of distance education, statistical data, and financial implications. Next, characteristics of Generation X leaders and Generation Y students will be explored, along with overall online student characteristics and readiness. Theoretical background will be reviewed followed by an overview of assessments regarding readiness. The final area of examination will include a review of K-12 programs for the state proposed for the study.

Online Learning

The definition of distance learning varies depending upon the author and organization. Moore, Dickson-Deane, and Galyen (2011) reported vast inconsistencies among researchers using terms to describe courses delivered via technology. Terms associated with distance education vary depending upon the date of the publication as well as upon the author's preference. Idioms may include *distance education*, *distance learning*, *online learning*, and *eLearning*. Moore et al. (2011) reported that many of the differences in terminology lie with the evolution of how education has been delivered and with the country of origin of the researcher. For the purposes of this study, the

researcher defined distance education or online learning as courses offered by electronic means in which the instructor and student are separated by time and/or distance via the World Wide Web and in which at least 80% of the course was delivered online.

While many educators and students may think of distance learning as a new avenue for educational instruction, a review of the literature demonstrates that distance learning has a long and varied history in the U.S. Casey (2008) described the first distance learning course offered in 1852, a correspondence shorthand training course, using the U.S. Postal Service. From that humble beginning, distance learning has evolved from mail correspondence courses to live courses via radio in the 1920s. Radio equipment expanded the reach of distance learning into remote rural areas of the United States.

Educators extended distance learning further with the advent of television, allowing students to see and hear educational offerings as early as 1934 (Casey, 2008). According to Collins, McKinnies, and Collins (2010), telephone technology in the 1950s added the dimension of synchronous learning through conference calls. Satellite technology, beginning in the 1960s, provided a burst in distance learning through video broadcasts. Many higher educational institutions readily embraced this technology as a means to reach numerous class locations through the broadcast from one central site. With learning options reaching new levels, it is interesting to note two recent studies on learner satisfaction. Abdous and Yen (2010) compared learner satisfaction in face-to-face settings, satellite broadcasting, and live video-streaming. The results of this study found no differences between the groups with regard to learner satisfaction but did demonstrate a weak relationship between learner prior distance learning experience and learner satisfaction. A study by Overbaugh and Nickel (2011) demonstrated that online

and hybrid students were satisfied with the learning experience. This study also challenged many conventional thoughts regarding online classes and the need for a *sense of community*. Results from the study found that the majority of students surveyed were not interested in a sense of community and many selected online classes for the convenience of not having the burden of social interaction (Overbaugh & Nickel, 2011). McVay Lynch (2004) also talked about the expanding role of online learning. She stated that online learning is a natural outgrowth of school leaders faced with decreasing school budgets trying to meet the needs of an increasing, technology-savvy student population.

Current web-based technology has resulted in new students who enroll and take classes via personal computers and mobile technology anywhere there is Internet connectivity. This widespread acceptance and use of the Internet has propelled distance education to new levels of growth and the use of the term *online learning*. The Internet has become the most common delivery method for distance education, according to Cejda (2007). There is no shortage of online offerings in the marketplace. These offerings range from hybrid courses that include some traditional delivery methods to fully distance courses in which the student enrolls, accesses all instructional material online, and completes the course without ever stepping foot on the college's physical campus.

The utilization of online meetings and training by noneducational organizations has also served to cultivate a comfort level for online education. In addition, a study conducted by the Gray and Lewis (2009) reported that a growing number of K-12 teachers and students have experience with online learning and resources. This comfort level with online learning has translated into explosive growth in online learning.

In fact, Collins et al. (2010) stated that online learning or eLearning is the fastest growing method of delivering education today in secondary, postsecondary, and career educational settings. Allen and Seaman (2011) reported that online enrollment has been growing considerably faster than overall higher education enrollment for the past 8 years. This report indicated that 31% of all higher education students now take at least one online course, and Allen and Seaman further reported that over 6.1 million college students were enrolled in at least one online course during the fall of 2010, which represented an increase of 560,000 students from the previous year. This 2011 report is the ninth annual report of a survey that is a collaborative project between the Babson Survey Research Group and the College Board. The report reflected upon the trends of the past decade in online enrollment and reported that "[o]nce again, there is no compelling evidence that the continued robust growth in online enrollment is at its end" (p. 6).

The enrollment tracking among K-12 online learning demonstrates some growth but falls short of the explosive growth rates found in higher education. While data tracking of higher education enrollment has been in place for a decade, data for online learning in the K-12 setting has been almost nonexistent on a regional or national level (Picciano & Seaman, 2009). In fact, Barbour and Reeves (2009) indicated that research in virtual schooling at the K-12 level is still evolving. Picciano and Seaman (2007) conducted one of the first national studies examining online learning in the K-12 environment. The results of this study revealed that state departments of education are beginning to embrace online learning in a variety of ways, including curriculum change implementation and starting statewide virtual public schools. While those surveyed

overwhelmingly indicated interest in online learning, the decision to offer online courses generally remains at the state and local level. Other results of the survey found

Of those districts with students enrolled in distance education courses in 2002–03, about half (48%) had students enrolled in distance education courses delivered by a postsecondary institution. Thirty-four percent of districts had students enrolled in distance education courses delivered by another local school district, or schools in other districts, within their state. Seventy-two percent of districts with students enrolled in distance education courses planned to expand their distance education courses in the future. Thirty-six percent of districts that were planning to expand their distance education courses selected course development and/or purchasing costs as a major factor preventing their expansion. (Picciano & Seaman, p. 4)

A follow-up to the Picciano and Seaman (2007) survey was conducted by Picciano and Seaman in 2009. The results of this survey demonstrated some changes in acceptance and implementation of online learning by K-12 leaders. Further, 75% of the public school districts reported offering online or blended courses. A majority, 66%, of districts with students enrolled in online or blended courses felt that their online enrollment would continue to grow. In reflecting upon the need study of online learning and the K-12 environment, Picciano and Seaman (2009) wrote

With almost 4 million students or 22 percent of the higher education population presently enrolled in fully online courses, it would be appropriate to consider that online instruction is maturing in postsecondary education. However, the same cannot be said about online learning in primary and secondary education where online instruction is still considered to be in its nascent stages. There is also a growing need to examine issues related to online instruction in K-12 schools in

order to inform policymakers at federal, state, and local governing agencies who are considering how to use this technology to expand and maybe to improve instruction. (Picciano & Seaman p. 2)

Further, the United States Department of Education reported concerns over the lack of research of online learning at the K-12 level as reported by Means et al. (2010). This lack of research has led to concerns voiced by some K-12 leaders regarding whether or not online learning is a viable option at the K-12 level. One factor of concern is the lack of understanding regarding the cost of online learning.

Keeping Pace with K-12 Online Learning, a 2010 report, purported that with regard to online learning, “potential cost savings exist in physical infrastructure” (p. 44). Darrow (2010) reported that there were few reports outlining the costs associated with online learning as compared to traditional learning. Some data do exist from the nation's largest state-run public school system located in Florida. The Florida Virtual School is three times larger than any other state-run virtual school with over 213,000 course enrollments. Florida Tax Watch (2007) evaluated the Florida Virtual School during the 2006-2007 school year and found that the per-student cost was \$5,243 at the Florida Virtual School compared to \$6,291 at a traditional public school in the state. Clark (2008) reported that state-led virtual schools are an option being adopted by many states and cost is a consideration for local school districts that may not have the funds for high speed technology. Watson and Ryan (2007) revealed in their research that 30 states have adopted a state-led virtual school program.

Christensen et al. (2008) estimated that half of high school courses will be offered online by 2019. The authors stressed the importance for educational leaders to construct a long-range plan for continued funding as a first step in establishing a successful online

school program. Regardless of these concerns, there is considerable support for online learning at both the K-12 level and in higher education. The flexibility of online courses and double digit growth among online private universities have not gone unnoticed by those responsible for public education policy development and the passage of legislation associated with such policies.

A 2013 report by Barefield, RHIA, and Meyer on the role of leadership in support of online education shares the following advice for administrative leaders

Leaders at all levels of administration need to be mindful that while online programs provide significant growth potential with little need for added physical space, careful consideration needs to be given to the faculty and student support structure in order to achieve maximum effectiveness. Online learning environments differ significantly from their brick-and-mortar cousins and therefore require additional planning to ensure success. (p. 6)

Online courses are supported by the National Governor's Association through the National Governor's Association's Common Core Common State Academic Standards and noted in their Education Reform Policy Position (2010):

Governors also recognize that distance learning is increasingly important to ensure that barriers to learning are removed and that all students have access to a diversity of learning options and highly qualified teachers, even in remote areas. In addition, distance learning can facilitate meeting the goals of NCLB by removing geographic and physical barriers to education. For these reasons, governors urge the federal government to help states develop, deploy, and expand distance learning programs and provide states enhanced technical assistance to support such programs that are essential for academic subjects, advanced

placement coursework, and technical training. (National Governor's Association's Common Core Common State Academic Standards, p. 1)

The future of online learning appears solid, but some researchers point to some changes on the horizon, and successful leaders must plan for the infrastructure to support online learning as part of the overall long-range strategic plan.

Generation X Leaders and Generation Y Students

Generation X students have now found their way into leadership positions today. Like their parents, the Baby Boomers, their experiences have shaped their management styles and views. The U.S. Census Bureau reported that Generation X is the most educated generation in United States history (U.S. Census Bureau, n.d.). However, that education pales in comparison to the technological exposure and virtual experiences of Generation Y. Management consultant and leadership author Mark Buckingham (2006) stated the following in an interview for *Training + Development Magazine* when contrasting the two generations in the workplace and the need for Generation X leaders to understand this new generation:

There's no question that one of the challenges today is how to engage Generation Y, the millennial generation. They are manifestly different from Generation X, my generation. They're much more optimistic and entrepreneurial, and they're much more tech savvy. We grew up believing that nothing was permanent. We grew up with marriages that ended in divorce. Our parents watched people walk on the moon, and we watched the Challenger blow up. So as a result of those societal influences, we are a jaundiced, slightly disillusioned, slightly pessimistic, mistrustful generation that expects our chief executives to be stealing from the company and expects to work really hard but knows we could be fired at any

time. The hard thing about Generation X is getting us to believe in something real. Generation X's parents watched *Rosemary's Baby* (a 1968 film in which a woman discovers that her pregnancy is part of a satanic ritual). Children were to be feared. What were Generation Y's parents watching? *Look Who's Talking* (a 1989 comedy in which a toddler looks for a husband for his single mom). The whole thing was about "protect the child." Generation Ys got prizes for graduating from first grade, for coming in eighth in a race, or for just showing up. They are the most rewarded, recognized, and praised generation in living memory. So they walk into the workplace feeling massively entitled. After six weeks on the job, they expect a promotion. (Buckingham, p. 27)

Bothel (2001) argued that the focus of educational institutions is shifting away from the storage and conservation of knowledge to that of information navigation and acquisition. Pfeffer and Sutton (2000) contended that many current leaders substitute memory for cognitive processing. Leaders will fall back on what has been done in the past to solve a problem out of habit instead of actually thinking about the problem. The authors described a need for leaders who both talk and take action (Pfeffer & Sutton, 2000). Beaudoin (2003) described a need for new leaders who are not burdened by the traditional mentality that may prevent the acceptance of online learning. Watson and Ryan (2007) quoted Susan Patrick, President of the North American Council for Online Learning (NACOL), in the forward of a NACOL report, *A National Primer on K-12 Online Learning*:

It is troubling that 84% of employers say K-12 schools are not doing a good job of preparing students for the workplace.... As a nation we have to do better, and research shows that online learning provides the interactive, collaborative and

self-paced learning environments where students can gain the skills needed to succeed....For far too long, access to a high quality education has been too closely tied to the student's zip code. (Watson & Ryan, p.1)

According to Clark (2008), higher education has long embraced online learning, yet the K-12 state-led virtual school movement began in 1990s with a slow start. Watson and Ryan (2007) reported that at the end of 2006, 38 states had established K-12 online learning programs, which has become the most common form of K-12 online delivery method in the U.S. Despite this fact, the majority of leaders admitted that they had little knowledge of how online programs operate, how the programs are funded, and, more importantly, how students learn in the online environment.

Jukes et al. (2010) contended that educational leaders must release the past if they are to be successful in today's educational environment. Management and curriculum solutions that worked even 10 years ago will not work today because today's students operate at a different speed than students of 10 or 20 years ago. Multitasking is second nature to this generation of primary and secondary students but may not be second nature to their Generation X leaders. Further, Jukes et al. (2010) contrasted Generation Y students with Generation X education approaches. Generation Y students prefer random access to information while educators prefer a sequential approach. Generation Y students prefer learning *just in time* while educators prefer learning *just in case*. Generation Y students prefer instant feedback and gratification while educators prefer delayed gratification and often, inadvertently, delay feedback by days or even weeks in the case of testing. Finally, Jukes et al. (2010) compared Generation Y students' preference for instant learning, filled with media and technology tools to Generation X

educators' preference for curriculum and teaching styles that focus on the preparation for student testing, rather than learning for learning.

Hartman, Dziuban, and Brophy-Ellison (2007) used the term, Net Generation, to describe traditional age high school and college age students. They distinguish these students as learners who embrace a multitude of technologies and who find value in working in groups and expanded social networks. This idea is supported by McAlister (2009) who used the term, Millennials, and described today's K-12 and traditional college-age students as comfortable working in groups, and where communication and networking occur by traditional means and also through technology.

Oblinger and Oblinger (2006) reported that Generation Y students possess specific learning characteristics that set them apart from previous generations. They argued that this generation of students is much more visually oriented than their ancestors. As a result of this visual literacy, these students use images, sounds, and words equally in natural communication. The researchers stated that these characteristics also include a desire to work in teams, a need to be achievement oriented, and an interest in experiential learning. Jukes et al. (2010) stated

This generation no longer wants just to be the audience; they want to be the actors. They expect, want, and need interactive information, interactive resources, interactive communications, and relevant, real-life experiences. This trend does not just apply to those who have access to the latest digital media or the Internet. It also applies to the technological have-nots, the disadvantaged children on the other side of the digital divide, who still have access to video games, cell phones, mp3players, and a multitude of other digital gadgets....It's second nature to multitask. (Jukes et al., p. 14)

Prensky (2010) stated that “[t]oday's students want to learn differently than in the past... learning ways that make good use of the technology they know is their birthright” (p. 3). Prensky (2012) expanded his argument for *rebooting* education to understand the needs of *digital natives* but also tomorrow's employers in his book, *From Digital Natives to Digital Wisdom: Hopeful Essays for 21st Century Learning*. The book is based upon interviews with students. Prensky (2012) challenged educators to use *passion based* learning where students are encouraged to use nontraditional methods of exploring ideas and subjects that the student can be passionate about. He argued for the use of technology that students use every day, such as mobile devices, in the classroom as learning tools instead of items to be banned by educators.

Prensky (2010) is not without critics of his proposed learning style of digital natives. While Rikhye, Cook, and Berge (2009) agreed that Prensky's (2010) idea that pedagogical tools may be outdated with this technology-driven generation, they took issue with the fact that Prensky's (2010) writings offered no actual evidence to support his proposition. Rikhye et al. provided a literature review of learning and the brain in an effort to address Prensky's ideas. Their conclusion was that while no empirical support can be found yet in the literature for Prensky's ideas, although support may soon be available through current and future research. Further, the gap may already be narrowing between teachers and students due to a number of factors, including exposure of persons of all ages to technology and the aging of the first digital native cohort. Prensky (2012) agreed with this and reported his concern that even new digital native teachers may not fully understand the need for a shift in pedagogy with regard to the use of technology.

Readiness

Self-Management of Learning

Some researchers have linked some of the characteristics of successful online learning to include active engagement in their own learning, self-motivation, and comfort with technology (Boyd, 2004). Early research by Warner, Christie, and Choy (1998) demonstrated that a capacity for self-directed learning and engagement with content-presented information were important characteristics associated with students who navigated successfully through online courses. By its nature, the online learning environment is different from traditional face-to-face learning environments.

While many studies of online learning were still in the process of being validated, Howland and Moore (2002) conducted a small qualitative study to determine undergraduate and graduate student perceptions of online learning at a university in the United States. Results of the study revealed that students who reported positive experiences were more likely to be independent learners and understand the role as an active participant in the learning process.

Quantitative research has been conducted in the area of the students' willingness to self-manage or take control of their own erudition in the online environment beginning in 1999 (McVay, 2001; Smith, 2005). Self-Management of Learning has been identified by a number of researchers as associated with readiness for online learning (McVay, 2001; Smith, 2001; Smith et al., 2003; Smith, 2005). Further, a number of researchers have reported certain characteristics associated with high degrees of self-management of learning. These characteristics include the ability to manage time well, to be self-motivated, to have self-discipline, the ability to work independently, and to have a high degree of initiative (McVay, 2001; Smith, 2001, Smith et al., 2003; Smith, 2005).

Boyd (2004) also sought to identify characteristics associated with online student learning. He reported a number of characteristics that he associated with online student success. These characteristics included learning characteristics, technical factors, personal characteristics, and environmental factors. He identified learning characteristics as those related to "individual learning styles, reading and writing skills, and self-direction" (p. 36). Personal characteristics included the ability for all students to feel that they possessed an equal chance to express their views in the class. Other personal characteristics noted for success in the online learning environment included individuals who are self-motivated and self-disciplined. Boyd (2004) also indicated that "successful online students exhibit qualities of honesty, integrity, and authenticity" (p. 35). The final characteristic identified by Boyd was environmental factors. Environmental factors have "to do with time, place, and support from significant others" (p. 34). Environmental factors were important when students were balancing numerous personal priorities such as families, finances, or jobs.

Kerr, Rynearson, and Kerr (2006) sought to develop a new measure of online student characteristics. The instrument developed was called the Test of Online Learning Success (TOOLS). The TOOLS assessment includes subscales addressing the following areas: computer skills, dependent learning, independent learning, need for online learning, and academic skills. The instrument contained 50 items. Their work included three studies that identified several key characteristics associated with online learning including motivation, independent learning, and computer literacy.

Mupinga et al. (2006) conducted a study using the Myers-Briggs inventory to assess online student characteristics and reported that no learning style was prevalent among the 131 undergraduate study participants. A similar study sought to assess online

student characteristics but expanded the study into learning strategy and self-efficacy. Wang, Peng, Huang, Hou, and Wang (2008) reported that a “[d]istance learner’s self-efficacy has no direct effect on learning results but there may be an indirect effect. By this we mean that it is difficult to use learning strategy to improve learning scores” (p. 17). The results of their study supported the idea that the success or failure of the student in the class was generally due to effort or self-management on the part of the student.

There were some commonalities noted between overall student readiness and readiness factors identified by research (Boyd, 2004; Kerr et al., 2006). These common factors include writing and self-management behaviors such as time management, self-awareness, self-control, and intentionally. It is interesting that Conley (2008) identified a number of factors associated with overall student readiness for college. He first defined readiness as the successful transition from high school to college. Conley (2010) listed factors associated with overall student readiness for college as cognitive capabilities and the ability to self-manage. His model for readiness holds key cognitive strategies such as problem solving at the core of readiness. This core is supported by key content and academic behaviors. Conley (2008) described academic behaviors as the ability of students to manage their own behavior successfully in areas such as time management, organization, and directing their own thinking. He argued that overall readiness for college must include both content knowledge such as literacy and behavioral self-management.

Comfort of Online Learning

Comfort of online learning has been identified as a factor associated with student readiness for online courses (McVay, 2001; Smith, 2001; Smith et al, 2003; Smith, 2005). McVay (2001) and Smith (2005) defined *comfort of online learning* as the student's

willingness to connect with others via electronic means such as email, discussion boards, etc. and comfort accessing resources and information for learning through electronic media.

Boyd (2004) reported in his list of online student characteristics that certain technical factors were associated with success. He reported these technical factors included acquired skills such as sending and receiving emails, researching information online and downloading that information, installing software, and participating in online discussions. Harasim, Hiltz, Teles, and Turoff (1995) and McKavanaugh, Kanen, Beven, Cunningham, and Choy (2002) supported the idea that a student's willingness to participate in online discussions is critical to the effectiveness of the online learning experience. Further, McVay (2001) described comfort of online learning as engagement in online class discussion groups and accessing information via the World Wide Web.

In the area of online learning, interactions and technology, Howard Gardner, founder of the Theory of Multiple Intelligences (2006), argued that “the process of using technology to mobilize the multiple intelligences of students has already begun....even when one is simply typing on one's keyboard, one can 'think' in spatial, musical, linguistic, or bodily intelligence” (p. 33). He favored two educational goals related to the use of online learning. The first goal includes assisting students in transitioning to become engaged adults. In the area of interpersonal intelligence, Gardner (2006) supported the use of discussion forums or chat rooms. The second goal is focused toward the concept of thinking in various disciplines. Gardner (2006) stated that while opportunities to study the disciplines have always existed, online technology allows students the opportunity to address the multiple ways of knowing that humans hold within their brains.

Gender in Comfort and Self-Management of Online Learning

Research in the area of gender and online learning has resulted in mixed findings. Early research in the 1990s examined teaching styles related to age and gender, but research since that time has focused more on the type of online learning. According to Gunn, McSporrán, Macleod, and French (2003), early gender research in the area of computer education revealed that women consistently reported owning fewer computers and reported less experience with computers and less comfort demonstrating computing skills as compared to male peers. The authors reported significant changes later with the introduction of the Internet and shared, “The closing of the gender gap is notable with electronic mail and Web use. The proportional increase in those describing themselves as “very confident” is much greater among the women than among the men” (p. 18). Findings by Jackson, Ervin, Gardner, and Schmitt (2001) demonstrated that men were less likely to engage in direct online communication such as email but more likely to use the Internet to gather information. A similar study by Hoskins and van Hoof (2005) produced opposite findings demonstrating that males were more likely to engage in online communication with instructors, students, and access the Internet earlier as compared to female students. Two studies, Davidson-Shivers, Morris, and Sriwongkol (2003) and Masters and Oberprieler (2004), supported the idea that males and females participate equally in online learning.

A study conducted by Bostock and Wu (2005) revealed gender differences in two areas related to comfort of online learning such as participation in discussion boards. The authors reported that females demonstrated a preference over males for online discussion boards and posted more messages than males. Further, the authors reported gender differences in the area of the comfort using computers. Males were more comfortable

with the use of computers as compared to females. Meece et al. (2006) examined gender and motivation. While this study did not examine the online environment, it is interesting to note the findings. The authors reported that gender was not found to be a strong predictor of behavior responses. Further, Meece et al. (2006) revealed that while gender no longer appeared to be a predictor in student academic success, self-efficacy remained an important predictor.

Wang, Wu, and Wang (2009) investigated motivation with regard to mobile learning and reported the following

Self-management of learning was also unexpectedly found to be a stronger determinant of intention for women than for men, and this finding seemed to be opposite to the viewpoint proposed by Beck (1983), who suggested that men are more likely to display self-autonomous traits than women. (p. 113)

Poellhuber and Anderson (2011) reported that men are more likely to demonstrate an interest in online media for learning purposes as compared to women. Finally, a large study by Hung, Chou, Chen, and Own (2010) demonstrated no statistical differences by gender in the areas of self-directed learning, online communication, Internet self-efficacy, online learning motivation, and learner control. Poellhuber and Anderson's (2011) research regarding specific software usage in the online environment found "systematic gender and age differences for nearly all social software, with men and younger respondents reporting higher levels" (p. 114). Interestingly, their research found significant differences between men and women and their self-reported attitudes and experience with technology. The results demonstrated that

Compared to women and older students, men and younger respondents

claim to have more positive experiences related to teamwork as well as stronger cooperative preferences. Interest in collaborating with peers in a distance course increases with age. A similar phenomenon is observed in interest in the use of social software for learning purposes. While being less experienced than their younger colleagues, older students show more interest in learning with social software....This gives some support to the Net Generation hypothesis.

(Poellhuber & Anderson, p. 120)

In 2009, Simmering, Posey, and Piccoli reported in their review of online characteristics of 190 respondents enrolled in a self-directed online class that "gender related significantly to both computer self-efficacy and initial motivation to learn" (p. 106). A study by Yukselturk and Bulut (2009) reported that "The results indicated that there was no statistically significant mean difference among motivational beliefs, self-regulated learning variables and achievement with respect to gender" (p. 19). Finally, results from a study by van Deursen, van Dijk, and Peters (2011) found no differences in four sets of Internet skills by gender, including access and content.

Care and Udod (2000) stressed the need for further studies on self-directed learning and gender. Further, a review of gender influences in online learning by Astleitner and Steinberg (2005) revealed that reported results from studies of gender related differences in online learning are not sufficient and vary greatly. The authors advocated more studies of gender differences in comparison with other online learning characteristics, rather than gender in isolation. Interestingly, while McVay (2001), Smith et al. (2003), and Smith (2005) established comfort and self-management as factors related to online learning, none of these studies examined the role of gender related to these factors.

Prior K-12 Online Learning Experience

Research involving online learning in the K-12 environment is still emerging, based upon the fact that this method of learning is still relatively new to the K-12 environment. As a result, research linking prior K-12 online learning experiences to postsecondary online learning experiences is almost nonexistent. A recent study by Abdous and Yen (2010) found a weak relationship between learner satisfaction and prior distance learning experiences. Of interest is the fact that this did not specifically ask about K-12 distance education experience or the type of experience.

A study by Dodd et al. (2009) looked at the transition of secondary high school students in Canada. Two groups of students were compared including secondary students who had completed secondary courses via online and secondary students who had completed courses in the traditional classroom. The students who completed online courses did so due to extreme weather conditions, not due to academic risk factors. The results of the large scale study demonstrated that “students with high school distance education experience were more likely to persist and enroll in a second year of university studies” (p. 7). The authors noted with interest a possible link with other characteristics associated positively with online learning

However, while the current study found no significant difference between distance and non-distance students with regard to their high school achievement, it is plausible that the students who completed high school distance education courses were more motivated to achieve and persist at university. This is consistent with earlier research which suggests that high school students who participate in on-line courses are often more highly motivated, self-disciplined and independent (Barbour & Reeves, 2009). It may also be possible that that the

experience of completing on-line distance education courses in high school prepared students for a more independent approach to learning. This aspect of the distance education course experience – asynchronous, independently motivated study – is consistent with the study skills that many students need to succeed in the university environment. Students with distance education experience may be more self-regulated learners and able to work more independently to meet the requirements of university or to ascertain what is needed in situations where improvement is required. (Dodd et al., p. 9)

Theoretical Background

One of the greatest challenges faced by online learning has been related to the linking of the online environment to any one specific theoretical construct (McIsaac & Gunawardena, 1996; Milheim, 2011). These challenges were initially fueled by the complexity of the factors associated with online learning. These factors included the delivery method involving technology, the pedagogical approach involving the teacher, and the process of developing and teaching the content, and, finally, the student. More recently, Garrison (2000) argued that the focus is now on the student and student learning characteristics. Online leaders are beginning to understand the need to adapt to a learner-centered focus delivery for online learning.

There are a number of theories of early online learning. These include The Industrial Model of Distance Education and Guided Didactic Conversation. Otto Peters (1983) is associated with The Industrial Model of Distance Education. This model of learning was driven by the need to educate large numbers of people at various locations. It involved the use of technical media and is accepted as an organizational model, not as a

model of learning. Peters believed that distance education offered the opportunity to mass produce education to reach a wide group of students.

Another theory is the Guided Didactic Conversation Theory associated with Borje Holmberg (1991). His theory focused on the conversations, both real and simulated, that occur in the online learning environment. Holmberg viewed the role of the teacher as virtual, through simulated conversations occurring via the teacher's written communication, and emphasized the importance of finding a "link" between the student and the teacher.

According to McIsaac and Gunawardena (1996), Charles Wedemeyer, often deemed the father of distance education, began in the late 1970s to talk of moving away from correspondence courses to true learning at a distance where students had more responsibility but also had more freedom with self-directed and self-regulated learning. Wedemeyer's ideas became a theory proposed by Michael Graham Moore in 1986 and was known as the Transactional Distance Theory (Barbour & Reeves, 2006). This theory launched a number of other studies and gave researchers an opportunity to reflect upon early theorists' view of self-directed learning.

Holder (2007) conducted a study in an attempt to determine predictors of persistence among distance learners. His study involved 259 learners in both undergraduate and graduate courses at a university in the United States. Results from the study found that persisters tended to score higher in self-efficacy and time and study management as compared to nonpersisters. In reviewing these theories, the common theme ties back to early theories of self-directed learning, including Abraham Maslow's Hierarchy of Needs theory (1968) and Harold Gardner's Multiple Intelligence theory (1983).

One central theme of readiness for online learning is rooted in motivation. The term motivation finds its roots in the Latin word *movere*, meaning to move (Kiziltepe, 2008). There is no shortage of views and theories on motivation and little doubt that motivation plays a central role in attitudes and behaviors of learners in the online environment (Deci & Ryan, 2008). Atkinson (1964) described motivation as energy as well as the factors that lead individuals to act. The primary basis for the study of motivation historically rested in how humans behave, energize that behavior, maintain that behavior, and respond to internal or external stimuli. Motivation is grounded in the concept that humans are propelled to act for reasons that may be intrinsic or internal motivation or extrinsic or external motivation. Some researchers have reported that technology is a central factor related to intrinsic motivation with online learners (Keller & Sujuki, 2004; Shroff, Vogel, Coombes, & Lee, 2007). Recent research suggests that students with strong motivation tend to be more ready and successful in online courses (Eom, 2008). Further, this motivation may extend into comfort with technology. A study by Saadé, He, and Kira (2007) sought to identify factors associated with the success or failure of online learning. The results of the study revealed that motivation was a strong factor.

Abraham Maslow is mentioned as one of the most cited authors in the field of adult education, and his theory is one of the basis of humanism which relies on elements including self-direction and motivation (Milheim, 2011). Maslow is associated with need theories of motivation. His Hierarchy of Needs theory is based on what Maslow believed to be the basic needs that control human behavior. His theory is often depicted as a pyramid, prioritized with the most basic human needs at the bottom. The individual begins at the bottom of the pyramid and works toward the top of self-actualization. The

levels are (a) physiological or basic survival needs, such hunger, thirst, sex, shelter, and rest; (b) physical safety and psychological refuge, such as safety and security; (c) belonging needs, such as belonging to something and being accepted; (d) ego or esteem needs, such as self-respect and respect from others; and (e) self-actualization, such as reaching one's potential, happiness with self (Maslow, 1968). Maslow argued that once a need has been met, it becomes less of a motivator and the individual will reach for the next level. Individuals may also move from one level to another, depending upon the individual's life situation. Unmet needs cause anxiety and motivate the individual to act (Boshear & Albrecht, 1977). According to Milheim (2011)

Because one significant tenet of a humanist perspective is the self development of students, an online teaching and learning environment appears to be ideal for educators who align themselves with this particular perspective for a variety of reasons. The Word Wide Web allows for the self-directed discovery of knowledge and information with access and right at the fingertips of the learner. (Milheim, p. 26)

Maslow (1968) felt that children were more able to experience *newness appreciation* but that adults possessed the ability to reach self-actualization in which those individuals were *different* from the norm, healthy but different. According to Francis and Kritsonis (2006), Maslow reported that he felt there were no differences in gender with regard to self-actualization but that society had developed specific *rites of passage* for both men and women. His focus remained on the individual and that individual's distinct movement within his or her construct.

The implications of Maslow's theory in the online environment require some considerations of the theory and some criticisms. Laffey, Lin, and Lin (2006) have

asserted that Maslow's Hierarchy of Needs theory and the need to progress from one level to the next may be better suited to a broad approach to motivation rather than in a specific environment. If the individual does not perform, the individual may lose the position or fail the course. This loss or failure can have a direct impact on the level of need. The individual may fall from belonging needs back to survival needs. A second consideration in the online environment is that what motivates one individual may not motivate another. Grades or educational progress may not be motivators for some individuals. The true source of motivation, according to Maslow, is inside the individual. Maslow believed that individuals have the capacity to grow throughout the life-span. The truly self-actualized person may be a rare occurrence. If one accepts Maslow's Hierarchy of Needs, then individual motivation can be predicted. Critics of Maslow argue that it is impossible for individuals to progress without knowledge of the social construct surrounding them (Francis & Kritsonsis, 2006). While Maslow died in 1970, his impact on the study of motivation has been significant in that his research and writings influenced a number of theories, including Malcom Knowles's Theory of Adult Education and Douglas McGregor's Theory X and Theory Y (Boshear & Albrecht, 1977; Latham & Locke, 2007; Milheim, 2011).

Another prominent theory that has influenced online learning is Howard Gardner's Multiple Intelligences theory. Gardner (1983) argued that people possess varying degrees of talents that come from a mixture of biological factors, cultural factors, and evolution. He has identified eight unique intelligences and shared his definition of these with Checkley (1997):

Linguistic intelligence is the capacity to use language, your native language, and perhaps other languages, to express what's on your mind and to understand other

people....People with a highly developed logical-mathematical intelligence understand the underlying principles of some kind of causal system, the way a scientist or a logician does; or can manipulate numbers, quantities, and operations, the way a mathematician does. Spatial intelligence refers to the ability to represent the spatial world internally in your mind-the way a sailor or airplane pilot navigates the large spatial world, or the way a chess player or sculptor represents a more circumscribed spatial world....Bodily kinesthetic is the capacity to use your whole body or parts of your body- your hand, your fingers, your arms to solve a problem, make something, or put on some kind of production.... Musical intelligence is the capacity to think in music, to be able to hear patterns, recognize them, remember them, and perhaps manipulate them....Interpersonal intelligence is understanding other people....Intrapersonal intelligence refers to having an understanding of yourself, of knowing who you are, what you can do, what you want to do, how you react to things, which things to avoid, and which things to gravitate toward....Naturalist intelligence designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations). (Checkley, p. 12)

Nelson (1998) discussed the case for Gardner's theory in light of online learning. He argued that Gardner's suggestion that students possess different types of intelligence does not necessarily impact learning styles but online learning provides the perfect environment to provide various avenues of learning that are advantageous in light of Gardner's theory. Gardner remains quite active and has identified a ninth type of intelligence, but he has expressed some concerns. Gardner and Moran (2006) wrote, "He

has analyzed the potential of a ninth intelligence, existential, but is not yet convinced it fulfills all of the criteria” (p. 228).

Gardner and contemporary psychologist Mihaly Csikszentmihalyi are currently engaged in a project known as The GoodWork® Project (Fischman & Gardner, 2009). The focus of this project is to highlight the work of individuals and groups identified with work that is socially responsible and meaningful. This project is significant to online readiness and learning because some of the projects supported by The GoodWork® Project are targeted toward the use of technology. One such project is called The Developing Minds and Digital Media Project. This project is focused on the “study of the myriad ways in which 'new digital media '(NDM)—such as the internet, cell phones, and the like—influence the culture, psychology, and creativity of young people and of adolescence as a developmental phase” (Fischman & Gardner, 2009). Researchers Weigel and Gardner (2009) offered support for online learning, with some supervision, in the K-12 environment. They compared online technology from the constructivist learning, informal learning, and social media learning perspectives.

In summary, online learning advantages outweigh the disadvantages and “the new digital media’s affordability, ease of access, and breadth and depth of compelling content provide powerful resources that educators have at their disposal” (Weigel & Gardner, p. 41). Entrepreneurs have found a place in the paradigm shift involving K-12 education. One example is Salman Kahn, who currently leads The Kahn Academy, serving 10 million students with 3,400 short instructional videos, interactive quizzes, and support (Noer, 2012).

According to Weiler (2005), traditional forms of education relied primarily on linguistic and mathematical intelligence. Online learning opens an opportunity for more

active learning and the engagement of more types of intelligences as outlined by Gardner. In particular, Generation Y learners, according to Weiler, are more visual learners than previous generations. Their views are supported by a U. S. Department of Education (Means et al., 2010). The authors reported that students in online learning environments perform better than students receiving face-to-face instruction. While the differences were modest, these findings lend support for the idea that online learning can be an appropriate delivery method for educational curriculum.

Online Readiness Assessments

Interest among researchers in student readiness for online learning dates back to the mid-1990s when Biner, Bink, Huffman, and Dean (1995) conducted a large-scale study examining televised college-level courses. The results of the study indicated that students enrolled in these courses had distinctive personality profiles and specific traits that appeared to be linked to success in the course. Warner et al. (1998), as cited in Smith et al. (2003), sought to define readiness for online learning in terms of the student preference for the format, student confidence in electronic communication and media, and the capacity of the student to self-manage his or her own learning.

Mattice and Dixon (1999) developed a survey in the late 1990s that was constructed to ask students about prior experience with distance education, their access to technology, and the students' interest in enrolling in a distance education course in the future. Findings from the study resulted in the identification of three indices for measuring student preparedness for distance education courses: a readiness index, technology index, and an interest index. The readiness portion of the survey examined the student's self-direction, preference for feedback, and point of reference related to time. However, it did not look at self-motivation.

Smith (2000) conducted a factor analytic study utilizing the Canfield Learning Styles Inventory with online and traditional vocational students. The results of the study yielded the identification of two learning preference factors through the Canfield Learning Styles Inventory. The two factors identified were comfort in engagement and the ability to self-direct learning. Smith defined comfort in engagement as the comfort with which the students could connect with a learning series that was given to the student verbally as opposed to a series given in a nonverbal format. Smith (2001) reported the same findings in a later study involving undergraduate students. The second factor was the student's autonomy vs. no autonomy.

The next researcher to study student readiness for online learning was McVay in 1999. The genesis of the McVay Readiness for Online Learning questionnaire (2001) began with a focus on distance learning student attitudes and behaviors as part of an orientation program. McVay's survey was grounded in the theory of multiple intelligences and it looked at student comfort of online learning and the student's ability to manage the process. McVay (2001) developed a questionnaire containing 13 items on a 4-point Likert scale and administered the survey to students, pre- and post-orientation course. Smith et al. (2003) reported that "results of McVay's own research in using this questionnaire provide some early evidence for validity, since she was able to establish a relationship between student responses and the features of her orientation program" (p. 64). McVay (2001) conducted the study referred to by Smith et al. (2003) and utilized the study results to write a book, *How to be a Successful Distance Learning Student: Learning on the Internet*. In her book, McVay linked her research to the *student friendly* book that provided students with self-assessment questions to ask regarding their own *readiness* to take an online class. She then provided the tools to assist the student

engaged in online learning to understand factors such as technology and the learning process, time management, and synchronous and asynchronous communication. McVay (2001) believed that many distance education classes offer advantages for students. In a traditional classroom setting, the student may be exposed to one or two styles. In a distance learning environment, the student may have the opportunity to watch a video, listen to a podcast, read material, and post to a discussion board or a chat room, and involved several different modes of learning. In addition, since the student has the opportunity to create his or her own learning environment using music, lighting, color, etc. The student may enhance that setting to maximize understanding and retention. McVay (2001) discussed the importance that online learning places in the development of young people as lifelong learners. She stated

Just-in-time learning is triggered by the demands of your career and your interests. The rewards from this type of learning can be extremely attractive, both monetarily and in your sense of worth. Approximately two decades ago, the common rule keeping up the speed with changing technology in any career was to recommend investing one day a month on personal growth in your field. If you didn't do that, you would fall behind in your career. Today it is estimated that the half-life of technical knowledge in the computer field is about 18 months.

“General knowledge is 3-4 years....This is a dog eat dog world....You need to be in a continuous learning and change mode to be successful today.”(McVay, p. 91)

Smith et al. (2003) subjected the McVay Readiness for Online Learning instrument to reliability and validity studies. Their interest in the McVay Readiness instrument was based upon how closely the items related to Smith's earlier work (2001). Smith et al. (2003) wrote

Specifically, the items relate to the issues identified by Smith as the use of previous learning and experience, the setting of goals for learning, the evaluation and monitoring of learning, and the selection of learning strategies and learning resources. Accordingly, the face validity of the questionnaire looked promising.... The McVay instrument appeared to us to have considerable potential congruence with more broadly based previous work on the readiness of learners for resource-based learning. Establishment of that congruence strengthens the place of the instrument for research on online learning within the broader context of resource-based learning and flexible delivery. At the same time the instrument provided for a very clear focus on readiness for online learning as a particular form of resource-based learning, and may prove to be a useful instrument for research on online learning readiness among varied learner groups, as well as being a useful diagnostic tool for readiness. (p. 59)

Their study involved 107 undergraduate students from the United States and Australia. They reported that the instrument was reliable and produced a two-factor construction – comfort of e-learning and self-management of learning.

Smith et al. (2003) reported that their results supported Smith's earlier work (2000) of the identification of the two factors associated with online readiness including comfort of e-learning and self-management of learning or self-directed learning.

Smith (2005) tested the McVay Readiness for Online Learning questionnaire for validity and reliability. The sample size was larger than the Smith et al. (2003) study and included 314 undergraduate students. Smith also included the data set from the Smith et al. (2003) in a study. He defined online learning for this study as computer-mediated communication in which the interaction could be synchronous or asynchronous. The

results confirmed the original two-factor structure of Smith et al. and supported the idea that the instrument could have a place in research as well as a self-assessment for students interested in online learning. Smith's factor interpretation revealed

Items 4, 8, 9, 10, 11, 12, and 13 loaded highly and distinctly for Factor 1, identified as “self-management for learning,” similarly to Smith et al. (2003).

The factor may possibly be also interpreted as “self-directed learning.” Items 1, 2, 3, and 5 loaded highly on Factor 2, and that factor has been interpreted as “comfort of e-learning,” again the same as in Smith et al. (p. 8)

While Smith (2005) supported the idea of the instrument as a tool for readiness, he argued that more studies will need to be done if the instrument were to be used as a predictor of online success. Smith (2005) wrote about his selection of the use of the McVay instrument in researching online learning by stating that “the McVay instrument factor structure also had the attraction of being interpretable within an existing body of similar research and theory, but within the more specialised context of e-learning” (p. 6).

Hall (2011) used the Revised McVay instrument to attempt to predict student performance among community college students. Hall selected the survey based upon a number of factors including its common ground with many online learning readiness surveys, its ease of use, and validity. (M. Hall, personal communication, October 10, 2011). This questionnaire contained the 13 questions validated by Smith (2005) but contained the addition of a question, making the questionnaire 14 questions. The purpose of Hall's study was to expand upon the original readiness factors and to determine the extent the Revised McVay Readiness for Online Learning questionnaire could serve as a predictor of student performance (Hall, 2011). The current Revised McVay Readiness for Online Learning questionnaire contains 14 questions using a 4-point Likert question

responses, with a range of points beginning with 1 point assigned for *rarely* and incrementing to 4 points for *all of the time*. Hall proposed that “the higher the total score, the greater the presumption for success in a distance education course” (p. 2). Hall's study involved only 116 on-campus students and 31 distance learning students. The results indicated that the questionnaire scores explained 10% of the observed variance in the final grade for the distance learning students and was not statistically significant for the traditional students. While the purpose of Hall's 2011 study was not relevant to the proposed study, Hall's statements with regard to the design of the study and its ease of use may be constructive:

The evidence suggests that the McVay Revised Readiness for Online Learning questionnaire may play a role in counseling prospective distance education students...The questionnaire employs only 14 questions and is both time-efficient and flexible in delivery format... Another benefit of this questionnaire may lie in raising awareness for any student considering enrolling in a distance education course. The items listed in the surveys reflect individual traits and technical skills generally believed necessary to be successful in a distance education course. (p. 5)

Since the introduction of the benchmark McVay Readiness for Online Learning Questionnaire, a number of other instruments have entered the online course arena. Some of these instruments have sought to measure readiness and some have taken McVay's readiness factors and sought to link them with student achievement. Bernard et al. (2004) developed a 38-item questionnaire that was given to 167 students prior to taking an online course. The factor analysis was loosely linked to McVay's 2001 two-factor work, but this study indicated a four-factor solution, understood as “general beliefs about DE,” “confidence in prerequisite skills,” “self-direction and initiative,” and “desire for

interaction” (p. 31). The study looked at student achievement but did not assess readiness.

The Tertiary Students’ Readiness for Online Learning (TSROL) survey by Pillay, Irving, and Tones (2007) includes a 20-item instrument grouped into subcategories of computer self-efficacy, technical skills, learning preferences, and attitudes toward computers. This survey has been used in Australia but has not been well tested in the United States. Pillay et al. (2007) conducted a survey among 480 students in education courses at a large metropolitan university in Australia. The results indicated that the reliability had increased in three of the subscales and that further modifications could be useful.

Artino and McCoach (2008) focused their efforts on developing an instrument that examined academic self-regulation. The study examined task value and self-efficacy. The study involved a 28-item self-efficacy instrument developed by the authors and involved 646 United States Navy personnel but has not been tested among college students. Dray, Lowenthal, Miskiewicz, Ruiz-Primo, and Marczynski (2008) conducted a three-phase study to develop, evaluate, and validate an instrument for online readiness and information and communications technology engagement. The findings involved a small survey of 26 graduate students and instruments based upon researchers such as McVay (2001), Mattice and Dixon, (1999) and Bernard, et al. (2004). The result was the development of the Information and Communications Technology Engagement Subscale (ICT). Dray continues to test this instrument, but so far the research has been limited to graduate students (B. Dray, personal communication, September 12, 2011).

SmarterMeasure™ is a 124-item self-assessment currently used by over 300 colleges and universities across the United States. This instrument provides feedback to

the student directly. In most cases, the students do not have to be enrolled in a class or the college to take the assessment. The survey results are provided to the college for planning purposes to assist in planning instruction and support services.

SmarterMeasure™ is a fee-based service and contracts may be negotiated directly with the college or with the state's College Board. The instrument assesses individual attributes, technical skills, learning styles, reading rates, and typing skills. The mean test time for completion of the full instrument is 29:50 minutes (Non-Cognitive Skills & Student Readiness Assessment, 2011). The company provides the school with data, but because the survey is open access in the majority of schools, it may be difficult to confirm survey participation as actual enrolled students or if these students ever enroll in an online course.

One State's Journey

The state utilized for this study, as with many other states, continues to struggle with the increased pace of learning, higher demands of accountability from taxpayers and government entities, and the speed at which technology is changing the way students learn. Boykin et al. (2010) argued that the vast majority of students in secondary education end up in a technology-driven work force, regardless of the postsecondary path the student takes. As a result, all students should be college and career ready and that readiness should include the skills needed in today's technology driven environment where students are likely to encounter an online class, either as an academic offering, career/technical offering, or a continuing education offering tied to job skills.

Like a number of other states, this state's department of education filed for an exemption to the No Child Left Behind Act of 2001 (NCLB) in February 2012. In addition, lawmakers in the state proposed for this study considered legislation to allow

the development and implementation of virtual charter schools in 2012. Secondary leaders in the state proposed for this study currently find themselves looking at the possibility of online course requirements in the near future. Senate Bill 2294 *Mississippi Digital Learning NOW Act* was introduced as part of the 2012 legislative session in the state proposed for this study and would have enabled the formation of virtual charter public schools. Patterned after Alabama and Michigan's law, the most significant part of this proposed legislation is that it would have required at least one course to be completed online for high school graduation. This bill did not pass but is expected to be reintroduced in the 2013 session (B. Smith, personal communication, April 19, 2012). In fact, a similar bill has been introduced during the 2013 session. The 2013 version of the charter school bill, House Bill 369, was passed by the State House of Representatives. House Bill 369 does not contain any language related specifically to online learning but the Senate has yet to weigh in on the legislation.

In addition, Senate Bill 2792 *An Act To Amend Section 37-15-38, Mississippi Code Of 1972, To Authorize Students To Dually Enroll In Their Home High School And A Local Community College*, was also introduced and passed. This legislation could potentially increase the availability of online courses through partnerships between community colleges and secondary schools.

An August 17, 2011, report released by American College Testing (ACT) indicated that the proposed state for the study had the lowest “college readiness” ACT scores of any state in the U.S. (The condition of college & career readiness 2011, p.25). Ninety percent of this state's students fell below ACT's benchmark scores as compared to 25% nationally. These data were reported at a time when many educators and legislators in the state had already been working with the State Department of Education (SDE),

beginning in 2004, to redesign the state's curriculum, headed by the governor's office (Mississippi Pathways to Success, n.d.). This process began with language arts and moved through mathematics, with a focus on vertical and horizontal alignments. This process took three years, with final approval in 2008. The SDE then began addressing foreign language and science in 2008-2009.

Primary and secondary educational leaders in this state operate under what is commonly known as Common Core State Standards (CCSS), and students are instructed based upon standards and assessments set forth by state and federal mandates. The state proposed for this study will soon experience significant shifts in the design and delivery of education through five new initiatives being implemented by the State Department of Education, as reported at the 2012 College Readiness Summit for this state (Kent, 2012). These initiatives include more Carnegie Units at the Eighth Grade Level, High School Redesign, Common Core State Standards, Teacher/Administrator Evaluations, and Failing Schools.

Initiative One

The first initiative reported by Kent (2012) begins by examining opportunities to increase Carnegie units beginning in the eighth grade. For those students looking for that higher education experience, beginning fall 2012, the state's institutions of higher learning in which this research is proposed will admit high school graduates under both a required and recommended college preparatory curriculum (CPC). This CPC requires 15.5 Carnegie units as a minimum for full admission and recommends 19.5 units for readiness for college. The recommended Carnegie units for the state consist of the following:

- English: 4 units

- Math: 4 units
- Science: 4 units
- Social Studies: 4 units
- Arts: 1unit
- Advanced Electives: 2 units (Geography, Foreign language); and
- Computer Applications: (.5 Carnegie Unit) (Mississippi Pathways to Success, p.2).

“The course should include use of application packages such as word processing and spread sheets. The course should also include basic computer terminology and hardware operation” (Mississippi Pathways to Success, n.d.). While the state's efforts to improve the K-12 curriculum involve a number of new initiatives, the state's own description of the required computer applications course does not specifically call for online engagement.

Initiative Two

The second initiative outlined by Kent (2012) has a more narrow secondary focus and is called *High School Redesign* (HSR). The HSR began with 14 high schools in the 2007-2008 academic school year. The purpose of the program was to infuse innovative courses that “apply the curriculum in relevant, practical ways and encourage a higher-level of thinking” (Kent, 2012, p.12). The effect of the initial efforts resulted in schools not being fully redesigned. The state department announced four ideas as a result of these early efforts including participation in a new program, *Excellence for All* (formerly the Board Examination Systems Program). This program is “based on more than 20 years of research by the National Center on Education and the Economy (NCEE) on

those countries that routinely outperform the United States on international assessments of student performance” (High Schools in Four States Piloting Program Designed to Bring American High Schools Up To Global Standards, p.1) Another idea involves early College High Schools. This program is currently being piloted at one community college in the state and involves first generation college-bound students with low socioeconomic factors. Students are offered dual-enrollment options as early as the sophomore year in high school, and the program is a partnership between the community college and secondary school.

Adult Diploma High School is a new program that will target students on the verge of dropping out of secondary school and will offer classes online as well as flexible traditional class times so that the student may remain employed but complete his or her high school diploma. The current Senate Bill (2792) will make this program mandatory. The fourth idea is a program called *College and Career Readiness (CCR)* or *Career Pathway Option* and includes partnerships with K-12 and state community colleges. In addition, the initiative is linked to 16 national Science, Technology, Engineering, and Mathematics Education Coalition (STEM) programs.

Initiative Three

The SDE third initiative for the Common Core State Standards effort included several action steps. The first step involved joining the Council of Chief State School Officers (CCSSO) and the National Governor's Association's Common Core Common State Academic Standards (NGACCSAS). While the United States Department of Education did not participate in the development of this program, only four states remain that have not adopted the curriculum (Common Core State Standards, n.d.). The curriculum redesign has been followed by assessment redesign. The three goals outlined

in the program focus on reading at the elementary level, decreasing the dropout rate, and improving state testing scores. The Common Core State Standards (CCSS) for this state is a focus on mathematics and English/language arts. The state curriculum effort involves K-12 and is aligned with the Partnership for Assessment of Readiness for College and Careers (PARCC) because this state is a member of this 25 state initiative. The initial timeline for the CCCS is training and implementation 2011-2014, with *live* assessment in 2014-2015 (Mississippi Pathways to Success, n.d.). The main focus is an improvement of critical thinking skills, according to Kent (2012).

Initiatives Four and Five

The fourth initiative involves annual evaluation redesign for administrators and teachers. Kent (2012) reported that the SDE is currently supporting a model that would allow for merit pay increases and teacher evaluation based linked to student performance and administrator evaluations linked to school performance. The fifth initiative involves an effort to resolve the issue of failing schools according to Kent (2012). A number of options have been examined by the SDE but some would involve legislative action.

The state's effort at online learning involves a statewide virtual public school established by the state legislature in 2006 and funded by the state in 2008-2009. Enrollment in the statewide virtual public school struggled, along with funding the program. Enrollment for the state's virtual school during 2009-2010 was 6,357, which represented a nine percent decrease in enrollment, at a time when many other states were seeing double digit growth. The state legislature passed legislation in 2010 to privatize the management of the statewide virtual public school. Requests for Proposals were submitted in late 2010, and this state has become the first state virtual school to be entirely run by a private provider. Of special note is the fact that this state became the

first state virtual school to be outsourced. Legislation still allows that qualifications and participation is left to local school districts. The SDE has addressed concerns with the state initiatives by reporting that the state virtual public school will revise its curriculum to align with the Common Core State Standards and any curriculum changes adopted by the state department of education (Mississippi Pathways to Success, n.d.).

There are some K-12 districts in the state that have stepped forward with the preparation and delivery of online learning integrated throughout the student experience in a variety of ways. One district has provided laptop computers for all students, beginning in sixth grade, and all courses, textbooks, correspondence, and assignments are provided online. In addition, correspondence with parents and student assignments may be submitted online. Students are required to conduct research online and to check their grades online. Another district has partnered with a university to allow high school students to be dual-enrolled and to complete college courses at no cost to the high school student, if those courses are taken online (D. Millender, personal communication, January 18, 2012).

While secondary leaders struggle to remain abreast with the demands of subject area tests and changes in the design and delivery of courses (CCSS, EFA, CCR, and HSR), the fact remains that high school graduates are more likely than ever to encounter online learning either in the higher education or career setting (Sugru & Rivera, 2005). Given the rural configuration of the state, readiness for online learning may be a significant factor for consideration by educational leaders. Collins et al. (2010) argued that online learning has the opportunity to “even the playing field in terms of educational access” (p. 2). This is especially true in rural areas where access to education may be limited. Johnson and Strange (2007) and Murray and Cunningham (2004) reported that

60% of all community colleges and one in five school-aged children are based in rural areas. Therefore, online learning could be a viable option for students in rural areas where educational offerings may be a challenge. Access to educational offerings is a factor noted by those surveyed by Picciano and Seaman (2009).

Curriculum

While this state is currently in the process of implementing changes to the design and delivery of primary and secondary education, the curriculum design changes have yet to test for readiness for online learning. A review of the proposed curriculum changes at the primary and secondary level encourages the use of technology. The Common Core State Standard Checklist lists as an active learning strategy that “[t]eachers use a variety of resources and ways to promote understanding, such as audio or video sources, the Internet, and class demonstration” (Mississippi Pathways to Success, n.d.). Technology is also listed as a separate item and schools may pronounce themselves as pervasive, considerable, partial, limited, or absent with regard to providing the following:

1. Instructional objectives and strategies integrate technology.
2. Students are shown or know how to access online tools/content.
3. Students understand the public aspect and possible ramifications of their online activities.
4. Students know how to use features of such tools as microblogs, virtual communities, wikis, Google docs, spreadsheets, etc.
5. Students know the rules of online etiquette.
6. Students are able to cite electronic sources appropriately.
7. Students practice responsible use of technology.
8. Students are able to synthesize information from multiple electronic sources.

9. Students are able to evaluate the quality and validity of resources found on the Internet.
10. Students have a clear purpose and an intended result for their Internet searches.
11. Teachers use video clips to meet instructional objectives.
12. Teachers model effective methods of using presentation software.
13. Students have opportunities to use presentation software.
14. Teachers model effective methods of using spreadsheets as a learning tool.
15. Students have opportunities to use spreadsheets in their learning.
16. The purpose of using instructional technology is clear to students.

(Mississippi Pathways to Success, n.d.)

Testing of these and other CCSS, EFA, HSR, and CCR initiatives are scheduled to begin with the 2013-2014 academic year. The possible rollback of the NCLB by the state and Senate Bill 2792 may also impact the K-12 landscape.

The Southern Association of Colleges and Schools (SACS) has recognized the need to address online learning and recently updated the SACS Distance Learning Policy Statement and Guidelines in December 2011. These standards include the following items:

The institution must demonstrate that the student who registers in a distance or correspondence education course or program is the same student who participates in and completes the course or program and receives the credit by verifying the identity of a student who participates in class or coursework by using, at the option of the institution, methods such as (1) a secure login and pass code, (2) proctored examinations, and (3) new or other technologies and practices

that are effective in verifying student identification. (Southern Association of Colleges and Schools, p. 6)

This standard is interesting in that online students are required to provide identifying information such as school identification cards or drivers license but traditional students are not required to provide this same identifying information when attending class or taking exams. With regard to online course curriculum and design compared to traditional courses, SACS standards state

Comparability of distance and correspondence education programs to campus-based programs and courses is ensured by the evaluation of educational effectiveness, including assessments of student learning outcomes, student retention, and student satisfaction. (Southern Association of Colleges and Schools, p. 6)

Summary

There is little doubt that students of today will encounter online learning either as a higher education student and/or as an employee in the workforce of tomorrow. A review of the literature indicates that there is little research on high school graduates' readiness for online learning as they transition from traditional secondary education to the postsecondary or career setting (Roblyer, 2006). While Generation Y students have benefited from exposure to more technology at a younger age than their Generation X leaders, their readiness for online learning is still an area in need of study. A number of states are implementing new programs, some with new pedagogy focused on the use of technology and learning.

New legislation and SDE initiatives are creating challenges and opportunities for educational leaders in the state proposed for this study. Research in student readiness for

online learning will assist these educational leaders to understand better online learning and develop strategic plans involving online learning. This planning process will help students develop the skills needed for the jobs of tomorrow.

CHAPTER III

METHODOLOGY

The purpose of this study was to examine a number of factors related to traditional student online course readiness at a large community college prior to state initiated K-12 curriculum design initiatives, NCLB possible exemptions, passage of Senate Bill 2792, and possible future virtual charter school laws. This study analyzed the traditional college freshmen students' perceptions of self-management of online learning and comfort of online learning. The study sought to identify any differences in comfort of online learning and self-management of online learning by gender. In addition, the study examined any differences in prior K-12 online experience and the type of the prior online course experience with comfort of online learning and self-management of online learning.

The goals were to understand these students' perceptions, to note any differences, and to provide a baseline for a possible future replication of this study post- state department initiative implementation and possible upcoming NCLB exemptions and state legislative changes. This study involved quantitative research design using the survey method (Borg, Gall, & Gall, 1993). This research is important for K-12 educational leaders to understand the factors associated with the readiness of students to take an online class as part of the preparation for college and career readiness.

Research Design

The study was based on quantitative survey research. Quantitative research focuses on numerical data to learn about an area of interest. The study also employed the use of descriptive research that seeks to gather information regarding a particular characteristic within a defined field (Borg et al., 1993). This survey utilized forced-

choice questions (Babbie, 1973). The study utilized three factors treated as independent variables including gender, K-12 online course experience, and type of K-12 online course experience. The study entailed two dependent variables including comfort of online learning and self-management of online learning. These variables were used to address the following six research hypotheses:

H1: There is a statistically significant difference in self-management of online learning between males and females.

H2: There is a statistically significant difference in comfort of online learning between males and females.

H3: There is a statistically significant difference in self-management of online learning between students who took an online learning course as part of their K-12 experience and those who did not.

H4: There is a statistically significant difference in comfort of online learning between students who took an online learning course as part of their K-12 experience and those who did not.

H5: There is a statistically significant difference in self-management of online learning among the types of online courses taken as part of their K-12 prior experience.

H6: There is a statistically significant difference in comfort of online learning among the types of online courses taken as part of their K-12 prior experience.

Also, the self-reported perceptions of self-management of online learning and comfort of online learning were used to investigate the following two research questions:

R1. What are the reported perceptions of self-management of online learning among recent high school graduates enrolled in online courses at a community college?

R2. What are the reported perceptions of comfort of online learning among recent high school graduates enrolled in online courses at a community college?

Participants

Participants represented a clustered, voluntary sample consisting of current students enrolled in a large community college in a southern U.S. state who were enrolled in at least one online course. The participants self-identified as graduates of high school within the past eighteen months. The goal was to survey the entire set of students enrolled in online learning at the time of the distribution of the survey in an attempt to collect 100 completed surveys by the target population. Spring 2012 online student counts included over 2,000 students of all ages, with representation from across the state.

Instrumentation

The instrument obtained participant demographic information, prior K-12 experience with online learning, perceptions of comfort of online learning, and perceptions of self-management of online learning. The survey instrument used to measure perceptions of comfort of online learning and perceptions of self-management of online learning was the McVay Readiness for Online Learning questionnaire (MROLQ), a 13 question survey that uses a 4-point Likert-type scale for each question. Permission was secured from Dr. Marguarita McVay Lynch to use her survey instrument (See Appendix A). This survey was used to produce measures of perceptions of self-management of learning, comfort of online learning among recent high school graduates, and to compare these perceptions based upon gender.

This instrument was reviewed for content validity by Smith (2005) and reliability (Smith et al., 2003; Smith, 2005). The 2003 study by Smith et al. (2003) involved 107 undergraduate students from the United States and Australia. In reporting the reliability of the instrument, Smith et al. (2003) reported a Cronbach alpha of 0.83. As quoted in Smith et al. (2003), “Both Coakes and Steed (1997) and Pallant (2001) suggest that alpha values above 0.7 are sufficient for reliability to be assumed” (p. 61). This value corresponds to the recommendations of Nunnally (1967). Further, the Kaiser-Meyer-Olkin (KMO) test yielded a measure of 0.815. Smith et al. (2003) proceeded with the factor analysis, based upon the favorable KMO results greater than .05 (Dziuban & Shirkey, 1974).

Smith et al. (2003) reported that their results supported Smith's earlier work (2000) of the identification of the two factors associated with online readiness including comfort of online learning and self-management of learning. The researchers further suggested some changes to five questions to improve the reliability, based upon their study results. Smith et al. (2003) stated in their analysis

Early indications from this exploration of the McVay Readiness for Online Learning questionnaire are that it is a promising instrument for research and for practice. We suggest, however, that further work needs to be done with larger and more varied samples to further investigate the value of the tool, and its range of applications. It is our intention to undertake some of that research now that we are satisfied that the instrument has promise in terms of its reliability and its factorability. (p. 63)

Smith (2005) also tested the McVay instrument for validity and reliability. The sample size was larger than the Smith et al. (2003) study and included 314 undergraduate

students. Smith (2005) also included the data set from the Smith et al. (2003) in Smith's 2005 study. He defined online learning for this study as computer-mediated communication in which the interaction could be synchronous or asynchronous. The results confirmed the original two-factor structure of Smith et al. (2003) and supported the idea that the instrument could have a place in research as well as a self-assessment for students interested in online learning. The results yielded a satisfactory Cronbach alpha of 0.79. The research further reported that “no item showed a corrected item-total correlation of less than 0.3, and no item showed an alpha if deleted score less than the Cronbach” (Smith, 2003, p.7). With regard to Cronbach results, Gliem and Gliem (2003) stated that “the increasing value of alpha is partially dependent upon the number of items in the scale.” (p. 87) The KMO test yielded a measure of 0.78. Smith's (2005) factor interpretation revealed

Items 4, 8, 9, 10, 11, 12, and 13 loaded highly and distinctly for Factor 1, identified as “self-management for learning,” similarly to Smith et al. (2003).

The factor may possible be also interpreted as “self-directed learning.” Items 1, 2, 3, and 5 loaded highly on Factor 2, and that factor has been interpreted as “comfort with e-learning,” again the same as in Smith et al. (p. 8)

While Smith supported the idea of the instrument as a tool for readiness, he argued that more studies would need to be done if the instrument were to be used as a predictor of online success. Smith (2005) wrote about his selection of the use of the McVay instrument in researching online learning by stating, “the McVay instrument factor structure also had the attraction of being interpretable within an existing body of similar research and theory, but within the more specialised context of e-learning” (p. 6).

Section I of the instrument requested demographic information from the sample. Items were chosen to provide a description of the high school graduation year date and gender of the subjects, allowing analysis of characteristics comprising the online student pool. Participants selected the appropriate responses to status measures categorized by gender and year of high school graduation.

Section II consisted of a 4-point Likert scale asking participants to report levels of readiness within two domains. Responses to the items were scaled from “1” being “Rarely” to “4” being “All of the Time.” The two domains were (a) Comfort of Online Learning associated with question items 1, 2, 3, and 5, and (b) Self-Management of Online Learning associated with question items 4, 8, 9, 10, 11, 12 and 13. Two sets of scores were computed from the survey questionnaire results. One score established comfort based upon a calculated total score of responses to items 1, 2, 3, and 5. The second score established self-management based upon a calculated total score of responses to items 4, 8, 9, 10, 11, 12, and 13. Once calculated, the higher the total score, the greater the level of comfort and self-management. These two summated scores were justified from the consistent findings of the two factors or domains of comfort of online learning and self-management of online learning from Smith (2000; 2005) and Smith et al. (2003) (P. Smith, personal communication, April 19, 2012). Mitchell and Jolley (2010) recommended summing scores that measure same construct. By doing so, not only is a score based on multiple single questions more reliable, but it also allows researchers to conduct less separate *t* tests, a desirable method which helps to retain the test’s effectiveness.

Section III asked participants if they were engaged in online courses as part of their K-12 experience. The responses were recorded as a “yes” or “no” dichotomous

variable. If a participant had online courses as part of the K-12 experience, then another question prompted the participant to select the type of experience, giving the following options: online college course, online high school course, online vocational/technical course, or other.

The survey collected data on five variables, including gender (section I), measure of comfort of online learning (section II, total score of item 1-3 and 5), measure of self-management of online learning (section II, total score of item 4, 8-13), prior online course experience (section III), and the type of experience (section III).

Procedures

The participants for the study were students enrolled in a large community college in a southern U.S. state who were enrolled in at least one online course. The study was conducted upon receiving IRB approval (See Appendix B). Approval from the college was secured for the study (See Appendix C). The participants self-identified as graduates of high school within the past 18 months. For the proposed study, data collection was accomplished using an electronic survey distributed to online students enrolled at the community college (See Appendix D). The College Office of Institutional Effectiveness assisted in the distribution and collection of the survey to assure anonymity. The software that was utilized allowed for anonymous responses and automated follow-up emails to those who do not initially respond within the time frame outlined. Each student email contained an explanation of the study, along with a secure web link (See Appendix E).

The following procedures were followed:

1. The Office of Institutional Effectiveness sent an email to all currently enrolled online students at the community college containing an explanation of the study

and a secure web link access to the survey. The secure link asked the student to provide consent to participate in the study. Students were provided with an explanation of the study and survey and were informed that participation was voluntary.

2. The Office of Institutional Effectiveness, in conjunction with the eLearning Office, posted an announcement inside the Blackboard System for all online students containing an explanation of the study and a secure web link access to the survey. The secure link asked the student to provide consent to participate in the study.

3. The Office of Institutional Effectiveness programmed the IT system to automatically email students who had not responded to the initial email within 3 days of the initial email and again 3 days later to those who had not responded. Additional emails were scheduled through a period of 2 weeks in order to attempt to obtain sufficient responses for the study.

4. The Office of Institutional Effectiveness provided the explanation of the study information contained in the student email. A campus proctoring center link was provided to participants in the event they encountered questions from online students.

5. A flyer containing an explanation of the study was posted in both on campus proctoring centers because the proctoring centers serve as computer labs for online students.

5. The Office of Institutional Effectiveness provided the researcher with daily survey counts only to gauge the need for follow-up emails.

6. The Office of Institutional Effectiveness provided the researcher with the raw survey data in an electronic format suitable for entry into SPSS 20.0 at the end of the 3 week research period. All responses were anonymous so no data were linked to any individual.
7. If sufficient surveys of the target population have not been collected at the end of the 2 week period, three computers in each of the proctoring centers located on both campuses were designated as survey computers. These computers were programmed to provide access to the survey link by the Office of Institutional Effectiveness.
8. The Directors of the Proctoring Centers posted information inside the proctoring centers regarding the study and allowed online students to take the survey while using the proctoring centers. Students were provided with an explanation of the study and survey and were informed that participation was voluntary.
9. As with the other survey data, all information was anonymous and was sent directly to the Office of Institutional Research.
10. At the conclusion of the survey, raw data were provided to the researcher. These data did not include any student identifier information.

Data Analysis

Once all of the questionnaires have been collected, the questionnaires were analyzed using SPSS version 20.0. The questionnaire data were analyzed using standard descriptive techniques to provide graphical and quantitative summaries. Independent samples *t* test were used to test research hypotheses 1 – 4. One-way ANOVA was used to test H5 and H6, but Tukey *post hoc* tests were not computed because one-way

ANOVA results were not found to be statistically significant. Effect sizes using Cohen's d were reported as needed. Descriptive statistics were calculated to answer R1 and R2. The questionnaire data were analyzed using standard descriptive techniques to provide graphical and quantitative summaries. Quantitative measures were computed for central tendency, variability, and skew. All statistical procedures were tested at the 0.05 alpha level.

With this information, secondary leaders will be able to understand better the current self-management of learning, comfort of online learning, K-12 self-reported experiences of online learning, and specific media and its impact among recent high school graduates. Secondary educational leaders will be able to consider this information as part of the strategic planning process for assisting graduates as these students transition to the *online* world of education and work.

CHAPTER IV

ANALYSIS OF DATA

Introduction

This research was developed to analyze the traditional college freshmen students' perceptions of self-management of online learning and comfort of online learning. The research was also designed to identify any differences in comfort of online learning and self-management of online learning by gender. The research also examined any differences in prior K-12 online experience and the type of the prior online course experience with comfort of online learning and self-management of online learning. Included in this chapter are the responses to the questionnaire by the students in the target survey group. Data analysis was employed to examine and test the research hypotheses and research questions.

Survey Results

The researcher used the McVay instrument and demographic data questions for the research. The survey was conducted at a large community college. The student group included only students currently participating in at least one online course at this college. The target student group was a subset that included online students who had graduated from high school within the past 18 months. The total number of online students contacted electronically to participate in the online survey was 1,877. The total number of surveys completed was 344. This number represented a sample of all demographics. The study included a target group representing students self-identified as completing high school in 2011 or 2012. The number of students in the target group was 143 ($N = 143$). The surveys completed by the target group represented an 8% return rate. Each of the 13 Likert-type scale items used in the analysis was answered fully by the 143

participants. In addition, demographic data for all of the 143 participants were completed and used in the results reported in this chapter. The study utilized three factors treated as independent variables including gender, K-12 online course experience, and type of K-12 online course experience. The study involved two dependent variables including comfort of online learning and self-management of online learning.

Descriptive statistics were used to obtain frequencies of gender, age, and year graduated from high school. Of the 143 completed surveys, 58 were completed by male online students and 85 from female online students. Table 1 reports these data with percentages. All 143 completed surveys fell within the traditional freshman target group as described in Chapter III.

Table 1

Gender Frequencies and Percentages of Participants

	Frequency	Percentage
Male	58	40.5
Female	85	59.5
Total	143	100

Section II included the McVay survey and demographic data collected which examined research hypothesis 1-4. Independent samples *t*-tests were used to test research hypotheses 1 – 4. The scores from these 13 questions were recorded into SPSS version 20.0. Responses to the items were scaled 1=*Rarely*, 2=*Some of the Time*, 3=*Most of the Time*, and 4=*All of the Time*. The two domains were (a) Comfort of Online Learning associated with question items 1, 2, 3, and 5, and (b) Self-Management of Online

Learning associated with question items 4, 8, 9, 10, 11, 12 and 13. Two sets of scores were computed from the survey questionnaire results. One score established comfort based upon a calculated summed score of responses to items 1, 2, 3, and 5. The second score established self-management based upon a calculated summed score of responses to items 4, 8, 9, 10, 11, 12, and 13. Once calculated, the higher the summed score, the greater the level of comfort and self-management. Cronbach's alpha was calculated for survey items 1, 2, 3, and 5. The summed score of items 1, 2, 3, and 5 was used to measure the level comfort of online learning. The estimated reliability coefficient for these items was .67. This reported value falls below the generally accepted value of .70, but Gliem and Gliem (2003) argued that "the increasing value of alpha is partially dependent upon the number of items in the scale." (p. 87) This may partially explain the reported reliability coefficient of .673 because it only included four items. Cronbach's alpha was calculated for survey items 4, 8, 9, 10, 11, 12, and 13. The summed score of items 4, 8, 9, 10, 11, 12, 13 was used to measure the level of self-management in the online environment. The reliability coefficient for these items was .87. No item demonstrated a corrected item-total of less than 0.3, indicating that these items had acceptable internal consistency and were consistent with the reported findings from previous studies (Smith et al, 2003; Smith, 2005). These reported reliability coefficients established acceptable inter-item reliability of the survey items, according to Gall et al. (2007).

The first research hypothesis analyzed was H1: There is a statistically significant difference in self-management of online learning between males and females.

Independent samples *t*-test assuming equal variance ($p = .77$) revealed a statistically significant difference between the self-management measure mean score of males and

females, $t(141) = 2.46, p = .015$, allowing the researcher to retain the research hypothesis. Females ($M = 21.84, SD = 4.51$) had a higher level of self-management in the online environment when compared to males ($M = 19.95, SD = 4.51$).

An independent samples t -test was analyzed to test H2: There is a statistically significant difference in comfort of online learning between males and females. Results are reported in Table 2 and demonstrated that an independent samples t -test assuming equal variance ($p = .14$) revealed a statistically significant difference between the comfort measure mean score of males and females, $t(141) = -2.40, p = .018$, allowing the researcher to retain the research hypothesis. Females ($M = 12.68, SD = 2.63$) do have a higher level of self-management in the online environment when compared to males ($M = 11.67, SD = 2.22$).

Table 2

Gender Mean Differences in Self-Management and Comfort of Online Learning

	Males	Females	t	df	p
	$M (SD)$				
Self-Management	19.95 (4.51)	21.84 (4.51)	2.46	141	.015
Comfort	11.67 (2.22)	12.68 (2.63)	-2.40	141	.018

H3: There is a statistically significant difference in self-management of online learning between students who took an online learning course as part of their K-12 experience and those who did not. This research hypothesis was analyzed using an independent samples t -test with SPSS version 20.0. This research hypothesis examined

self-management of online learning and exposure to online learning as part of the K-12 experience. The results are reported in Table 3. Independent samples *t*-test assuming equal variance ($p = .72$) revealed there was no statistically significant difference between the self-management measure mean score of students who took an online learning course as part of their K-12 experience and those who did not those take an online learning course as part of their K-12 experience, $t(141) = 1.36, p = .18$, allowing the researcher to reject the research hypothesis. It was of interest to note that the tendencies were for students that participated in online courses ($M = 22.15, SD = 4.50$) to report higher self-management measure mean score when compared to those that did not ($M = 20.82, SD = 4.59$).

H4: There is a statistically significant difference in comfort of online learning between students who took an online learning course as part of their K-12 experience and those who did not. This research hypothesis was examined using an independent samples *t*-test. The results are reported in Table 3. Independent samples *t*-test assuming equal variance revealed there was no statistically significant difference between the comfort measure mean score of students who took an online learning course as part of their K-12 experience and those who did not take an online learning course as part of their K-12 experience. Independent samples *t*-test assuming equal variance ($p = .81$) revealed there was no statistically significant difference between the comfort measure mean score of students who took an online learning course as part of their K-12 experience and those who did not, $t(141) = 1.25, p = .21$, allowing the researcher to reject the research hypothesis. From the descriptive statistics, students who participated in online courses ($M = 12.81, SD = 2.57$) had similar comfort measure mean score when compared to those that did not ($M = 12.15, SD = 2.49$).

Table 3

Mean Differences in Self-Management and Comfort of Online Learning Scores Between Online Learners with K-12 Online Experience and No K-12 Online Experience

	K-12	No K-12	<i>t</i>	df	<i>p</i>
	Experience	Experience			
	<i>M (SD)</i>	<i>M (SD)</i>			
Self-Management	22.15 (4.50)	20.82 (4.59)	1.36	141	.18
Comfort of Online Learning	12.81 (2.57)	2.51 (2.49)	1.25	141	.21

H5: There is a statistically significant difference in self-management of online learning among the types of online courses taken as part of their K-12 prior experience. Research hypothesis 5 examined the types of online learning experienced as part of the high school experience with regard to self-management of online learning. Test results from the one-way ANOVA revealed that there was no statistically significant difference in self-management of online learning among the types of online courses taken as part of their K-12 prior experience, $F(3,23) = 1.152, p = .349$. In addition, Tukey *post hoc* test was not computed because one-way ANOVA results were not found to be statistically significant. Descriptive statistics results for this one-way ANOVA are displayed in Table 4.

Table 4

Means and Standard Deviations of Self-Management and Comfort of Online Learning Among Types of Online Courses Taken

	<i>n</i>	Self-Management		Comfort of Online Learning	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Online College Course	13	22.30	5.07	12.77	2.31
Online High School Course	11	23.00	3.40	13.36	2.11
Online Vocational/Technical Course	2	20.00	5.66	11.00	7.07

H6: There will be a statistically significant difference in comfort of online learning among the types of online courses taken as part of their K-12 prior experience. This research hypothesis examined the types of online learning experienced, as part of the high school experience, with regard to comfort of online learning. A one-way ANOVA was utilized to test this research hypothesis. Results from the one-way ANOVA revealed that there was no statistically significant difference in comfort measure of online learning among the types of online courses taken as part of their K-12 prior experience, $F(3,23) = .64, p = .60$. In addition, a Tukey *post hoc* test was not computed because one-way ANOVA results were not found to be statistically significant. The results from one-way ANOVA tests for research hypothesis 5 and research hypothesis 6, both revealed no statistically significant differences in comfort of online learning or in the self-management of online learning, with regard to the types of online courses taken as part of

the K-12 prior experience. Descriptive statistics results from the one-way ANOVA are displayed in Table 5.

Table 5

Mean Differences in Self-Management and Comfort of Online Learning Scores Among Types of Online Courses Taken

	df	<i>F</i>	<i>p</i>
Self-Management	3, 23	1.15	.35
Comfort of Online Learning	3, 23	.64	.60

Finally, the self-reported perceptions of self-management of online learning and comfort of online learning were used to investigate the following two research questions:

R1. What are the reported perceptions of self-management of online learning among recent high school graduates enrolled in online courses at a community college?

R2. What are the reported perceptions of comfort of online learning among recent high school graduates enrolled in online courses at a community college?

Table 6 displays frequencies for items 1, 2, 3, 5 that measure the comfort of online learning. Table 6 also displays the frequencies for items 4, 8, 9, 10, 11, 12, 13 that measure the self-management of online learning among recent high school graduates.

The reported perceptions of comfort with online learning among recent high school graduates enrolled in online courses at a community college indicated that students were able to easily access the Internet as needed for online classes, with 34.3% selecting *most of the time* and 58.7% selecting *all of the time*. Comfort communicating electronically was reported at 36.4% selecting most of the time and 37.1% selecting *all of the time*.

Willingness to communicate actively with classmates and instructors was reported at 31.5% *most of the time* and 41.3% selecting *all of the time*. Finally, students reported feeling that online learning is at least equal quality to a traditional classroom setting, at 39.9% *sometimes*, 25.9% *most of the time*, and 25.2% *all of the time*.

The reported perceptions of self-management of online learning among recent high school graduates enrolled in online courses at a community college revealed that the willingness to dedicate 8-10 hours per week for studies was 42% *most of the time* and 28.7% *all of the time*. In the area of learning and studying, participants reported that they were self-directed 25.9% *sometimes*, 35% *most of the time*, and 33.6% *all of the time*. Looking back in a course helping the student to remember better was reported at 41.3% *most of the time* and 36.4% *all of the time*. Being self-disciplined and setting aside reading and homework time was reported by the students at 38.5% *most of the time* and 28.7% *all of the time*. Being able to manage study time effectively and easily completing assignments on time was reported by the students at 37.1% *most of the time* and 37.1% *all of the time*. Students reported that they enjoyed working independently 26.6% *sometimes*, 39.2% *most of the time*, and 29.4% *all of the time*. Finally, students reported 42% for *most of the time* and *all of the time* for setting high goals and reporting a high degree of initiative.

Table 6

Percentage of Self-Reported Perceptions of Self-Management of Online Learning and Comfort of Online Learning

	Rarely n (%)	Sometimes n (%)	Most of the Time n (%)	All of the Time n (%)
Comfort with Online learning				
Q1. I am able to easily access the Internet as needed for my studies	1 (.7)	9 (6.3)	46 (34.3)	84 (58.7)
Q2. I am comfortable communicating electronically	8 (5.6)	30 (21.0)	52 (36.4)	53 (37.1)
Q3. I am willing to actively communicate with my classmates and instructors electronically.	14 (9.8)	25 (17.5)	45 (31.5)	59 (41.3)
Q5. I feel that online learning is of at least equal quality to traditional classroom learning.	13 (9.1)	57 (39.9)	37 (25.9)	36 (25.2)
Self-management of Online Learning				
Q4. I am willing to dedicate 8 to 10 hours per week for my studies.	9 (6.3)	33 (23.1)	60 (42.0)	41 (28.7)
Q8. When it comes to learning and studying, I am a self-directed person.	8 (5.6)	37 (25.9)	50 (35.0)	48 (33.6)
Q9. I believe looking back on what I have learned in a course will help me to remember it better.	6 (4.2)	26 (18.2)	59 (41.3)	52 (36.4)
Q10. In my studies, I am self-disciplined and find it easy to set aside reading and homework time.	15 (10.5)	32 (22.4)	35 (38.5)	41 (28.7)
Q11. I am able to manage my study time effectively and easily complete assignments on time.	7 (4.9)	30 (21.0)	53 (37.1)	53 (37.1)
Q12. As a student, I enjoy working independently.	7 (4.9)	38 (26.6)	56 (39.2)	42 (29.4)
Q13. In my studies, I set goals and have a high degree of initiative.	4 (2.8)	19 (13.3)	60 (42.0)	60 (42.0)

Note. A total of 143 participants responded to these items.

Summary

The results of the study included descriptive statistics and analyzing data using SPSS version 20.0 to test six research hypotheses related to self-management and comfort of online learning using the McVay Readiness Survey. Results from the study also examined two research questions. Independent sample *t* tests were used, along with one-way ANOVA to analyze the data. Frequencies were reported related to self-management and comfort of online learning. Cronbach's alpha for the items that measured the level of comfort of online learning was .67. Cronbach's alpha for items that measured the level of self-management in the online environment was .87. Further, no item demonstrated a corrected item-total of less than 0.3, indicating that these items had acceptable internal consistency and were consistent with the reported findings from previous studies (Smith et al., 2003; Smith, 2005). These reported reliability coefficients established acceptable inter-item reliability of the survey items according to Gall et al. (2007).

For research hypotheses 1 – 4, results from four *t* tests revealed (a) there was a statistically significant difference between the self-management measure mean score of males and females; females had a higher level of self-management in the online environment when compared to males; and (b) there was a statistically significant difference between the comfort measure mean score of males and females; females had a higher level with comfort in the online environment when compared to males; (c) there was no statistically significant difference between the self-management measure mean score of students who took an online learning course as part of their K-12 experience and those who did not; and (d) there was no statistically significant difference between the

comfort measure mean score of students who took an online learning course as part of their K-12 experience and those who did not.

For research hypotheses 5 – 6, results from both one-way ANOVAs revealed that there was no statistically significant difference in self-management of online learning or in comfort measure of online learning among the types of online courses taken as part of their K-12 prior experience. Regarding research questions 1 and 2, results demonstrated that with each of the items that measured either self-management or comfort of online learning, at least 50% of participants responded either *most of the time* or *all of the time*.

CHAPTER V

DISCUSSION

Summary

The purpose of this study was to examine a number of factors related to traditional student online course readiness at a large community college prior to state initiated K-12 curriculum design initiatives, NCLB possible exemptions, passage of Senate Bill 2792, and possible future virtual charter school laws. This study analyzed the traditional college freshmen students' perceptions of comfort of online learning and self-management of online learning. The study sought to identify any differences in comfort of online learning and self-management of online learning by gender.

In addition, the study examined any differences in prior K-12 online experience and the type of the prior online course experience with comfort of online learning and self-management of online learning. The goals were to understand these students' perceptions, to note any differences, and to provide a baseline for a possible future replication of this study post- state department initiative implementation and possible upcoming NCLB exemptions and state legislative changes.

This chapter provided a summary of the findings connected to this research. In addition, conclusions based upon the data presented in Chapter IV were considered. A discussion section was included to review study findings in relationship to the literature review. Recommendations for future research were presented for consideration. Finally, limitations of the study were listed as well as recommendations for future research on this topic.

Conclusions

The results reported in this chapter identified several key findings. In this study, H1 stated “There is a statistically significant difference in self-management of online learning between males and females.” The reported results of the study revealed that females reported a higher level of self-management in the online environment when compared to males. This allowed the researcher to accept the research hypothesis.

H2 stated “There is a statistically significant difference in comfort of online learning between males and females.” The results of the research support this research hypothesis. Females reported a higher level of comfort in the online environment, when compared to males. H3 stated “There is a statistically significant difference in self-management of online learning between students who took an online learning course as part of their K-12 experience and those who did not.” The reported results allowed the researcher to reject the research hypothesis. While there was no statistically significant difference between the self-management measures mean score of students who participated in an online learning course as part of their K-12 experience and those who did not, the tendencies were for students that participated in online courses to report higher self-management measure mean score, when compared to those that did not.

H4 stated “There is a statistically significant difference in comfort of online learning between students who took an online learning course as part of their K-12 experience and those who did not.” The reported results allowed the researcher to reject the research hypothesis. Reported results revealed no statistically significant difference between the comfort measure mean score of students who took an online learning course as part of their K-12 experience, and those who did not. H5 stated “There is a

statistically significant difference in self-management of online learning among the types of online courses taken as part of their K-12 prior experience.” Students who participated in online courses reported similar self-management measure mean scores, when compared to those who did not. Based upon the survey results, no statistically significant difference in self-management of online learning was reported among the types of online courses taken, as part of their K-12 prior experience. The reported results allowed the researcher to reject the research hypothesis.

Finally, H6 stated” There is a statistically significant difference in comfort of online learning among the types of online courses taken as part of their K-12 prior experience.” There was no statistically significant difference in comfort measure of online learning among the types of online courses taken as part of their K-12 prior experience, allowing the researcher to reject the research hypothesis.

Research Question 1 stated “What are the reported perceptions of self-management of online learning among recent high school graduates enrolled in online courses at a community college?” The researcher examined frequencies for survey questions 4, 8, 9, 10, 11, 12, and 13. Research Question 2 stated “What are the reported perceptions of comfort of online learning among recent high school graduates enrolled in online courses at a community college?” The researcher examined frequencies for survey questions 1, 2, 3, and 5.

Discussion

The importance of comfort and self-management with regard to online learning has been well established. Research in the area of these two constructs and gender has produced few studies, and the results of those studies have been mixed. Results from this

study tend to support the findings of more current research with females reporting a higher level of self-management in the online environment when compared to males. A study by Wang et al. (2009) reported “self-management of learning was also unexpectedly found to be a stronger determinant of intention for women than for men” (p. 113). However, a number of other studies examining gender reported no significant differences in the area of self-management (Davidson-Shivers et al., 2003; Hung et al., 2010; Masters & Oberprieler, 2004).

Study of comfort of online learning has also produced mixed results with regard to gender. In 2009, Simmering et al. reported, “gender related significantly to both computer self-efficacy and initial motivation to learn” (p. 106). However, a study by Yukselturk and Bulut (2009) reported “no statistically significant mean difference among motivational beliefs, self-regulated learning variables and achievement with respect to gender” (p. 19). Finally, results from a study by van Deursen et al. (2011) found no differences in four sets of Internet skills by gender, including access and content. While other study results remain mixed, the analysis from this study found that females reported a higher level of comfort in the online environment, when compared to males.

While results with regard to self-management and comfort of online learning have varied in the area of gender, this is the first time the McVay survey instrument has been utilized to compare gender in these two constructs. Neither McVay (2001), Smith et al. (2003), nor Smith (2005) examined the role of gender in these two areas. It is notable that females reported higher levels in both self-management and comfort in online learning.

Research in the area of prior online experience during K-12 and student perceptions was almost nonexistent. There are a number of factors that have contributed to the lack of data in this area. Chief among the factors has been the lack of online availability for K-12 students. A number of new initiatives including dual enrollment, online high schools, virtual public schools, and charter schools will likely increase the opportunity for K-12 students to experience online learning prior entering the college or the job market. While the legislature in Mississippi reintroduces a charter school bill that may include online learning as a component, results from this study did not yield any statistically significant differences between students taking an online course as part of the K-12 experience and those who did not.

While no statistically significant differences were reported for comfort of online learning, the tendencies were for students that participated in online courses, to report a higher self-management measure mean score when compared to those who did not participate in an online course in high school. This result is of interest when compared to the recent study by Abdous and Yen (2010) that found a weak relationship between learner satisfaction and prior distance learning experiences. Also of interest is the fact that the research by Abdous and Yen (2010) did not specifically study K-12 distance education experience or the type of experience. This study found no statistically significant differences reported with regard to the type of online course as part of the K-12 experience.

Smith (2005) evaluated the McVay survey instrument identified two key constructs for online learning that included comfort of online learning (McVay items 1, 2, 3, 5) and self-management of online learning (McVay items 4, 8, 9, 10, 11,12, 13).

Results of the analysis of frequencies related to reported perceptions of comfort of online learning (McVay items 1, 2, 3, 5) from this study revealed results supporting current literature reviews. Comfort in online learning has been established as a vital factor in the online learning environment (Boyd, 2004; Conley, 2010; McVay, 2001; Smith et al., 2003; Smith, 2005). The results of this study tend to support this idea with the majority of students selecting “most of the time” or “all of the time” as responses to McVay items 1, 2, 3, and 5. The need for self-management as a key factor in online learning flows throughout the literature (Boyd, 2004; McVay, 2001; Smith, 2001; Smith et al., 2003; Smith, 2005). Reported perceptions by students in this study also tend to support this construct. The majority of students selected *most of the time* or *all of the time* as responses to McVay items 4, 8, 9, 10, 11, 12, and 13.

Limitations

This study’s limitations include several areas of consideration. The geographical area of the study included online students at only one community college in the state. Future researchers may wish to expand this study to include more than one community college and more than one state. Secondly, the perceptions that were gathered were limited to students who were enrolled in at least one online course who had graduated from high school within the past 18 months. The return rate on this survey was 8% for the target population, but 18% of the total online student population responded to the survey. The college did not have access to student demographic data, so there was no way to determine what percentage of the total online student population fell within the target group for this study. Finally, the perceptions of students reported only how the

students felt at the time they answered the survey questions. These perceptions were reported during the time the students were enrolled in at least one online course.

Recommendations for Policy and Practice

Results from this study highlight the need for K-12 leaders to recognize the growing number of K-12 students who may select online education as a viable option. Further, online learning is now, more than ever before, likely to be included as part of the K-12, college, and career experience. An understanding of the characteristics of online students provides valuable insight for the strategic planning process for educational leaders. Student comfort of online learning and self-management with online learning were identified as important factors in online learning.

K-12 leaders are facing legislative, policy, and popular demand for more online learning at the K-12 level. Continuing to provide opportunities for digital learners to experience digital education can help K-12 students acquire college and career ready skills such as comfort of online learning and self-management of online learning. Effective leaders recognize the opportunities but also the need for planning to ensure success. There is little doubt that online education leadership issues will continue to dominate headlines in academic and popular press. A 2013 report by Barefield, RHIA, and Meyer on the role of leadership in support of online education shares the following advice for administrative leaders:

Leaders at all levels of administration need to be mindful that while online programs provide significant growth potential with little need for added physical space, careful consideration needs to be given to the faculty and student support structure in order to achieve maximum effectiveness. Online learning

environments differ significantly from their brick-and-mortar cousins and therefore require additional planning to ensure success. Leaders can assist the institution in growing successfully by carefully designing and implementing the support structure before instituting a new online program. (p. 6)

The online education option has become popular among mainstream media, students, and parents exploring courses that offer learning that meets the needs of today's digital learners. The traditional K-12 classroom is no longer the only student option. With revenue stream concerns following students, educational leaders must examine options that now cross state and district borders. These options include national and state virtual school options and the possibility of charter schools. Visionary well-funded entrepreneurs such as Salman Khan, are also forcing a paradigm shift in K-12 education. Kahn leads The Kahn Academy, touted as the world's largest school, serving 10 million students with 3,400 short instructional videos, interactive quizzes, and support (Noer, 2012).

Recommendations for Future Research

This study was conducted at one community college. While this study used a well-established survey for examining online student characteristics, the study expanded research by also examining the role of gender and prior K-12 online experience. It would be of interest to duplicate the study at other community colleges to compare the results. This is especially important given the lack of research in the area of the transition of students to online education immediately after the K-12 experience.

The results of this study reflect student data prior to the implementation of a number of new state department of education initiatives. It is recommended that this

study be replicated in two to three years, once these new initiatives have been fully implemented to examine if there are any differences in student perceptions. While this study targeted online students using an online survey, it may also be of interest to examine if the use of an online survey may impact student perception results. Finally, a large percentage of nontraditional students responded to the survey. While this population was not the focus of this study, it may be of interest, in the future, to compare traditional student responses to nontraditional responses.

Conclusion

The information provided in the research provides secondary leaders with a better understanding of the current self-management of learning, comfort of online learning, K-12 self-reported experiences of online learning, and specific media and its impact among recent high school graduates. Of interest to leaders are the gender differences noted in this study and the majority responses with regard to comfort of online learning and self-management of online learning. Secondary educational leaders will be able to consider this information as part of the strategic planning process for assisting graduates as these students transition to the *online* world of education and work.

APPENDIX A
LETTER OF PERMISSION

From: Maggie Lynch [<mailto:maggie@thanospartners.com>]
Sent: Monday, October 24, 2011 2:35 PM
To: Pannell, Laura M.
Subject: Re: Email for Maggie McVay Lynch
Importance: High

Hello Laura,

Geoff forwarded your email below. I left College of the Redwoods about three weeks ago for a new opportunity in full time consulting. In this way, I can use my skills to help more institutions instead of focusing on just one.

Yes, you have permission to use my readiness survey. Please tell me where you saw it, or send me a copy of what you plan to use, so I can make sure it is the latest version. It has changed as I've gained statistical data about what questions work or don't work.

Maggie McVay Lynch, Ed.D.

Online Learning Specialist

Thanos Partners <http://thanospartners.com>

Portland, OR

503-780-1431

APPENDIX B
IRB APPROVAL



INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.6820 | Fax: 601.266.4377 | www.usm.edu/irb

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria: The risks to subjects are minimized.

The risks to subjects are reasonable in relation to the anticipated benefits.

The selection of subjects is equitable.

Informed consent is adequate and appropriately documented.

Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.

Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.

Appropriate additional safeguards have been included to protect vulnerable subjects.

Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".

If approved, the maximum period of approval is limited to twelve months.

Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 12092603

PROJECT TITLE: First Steps to College and Career Success: Predictors of High School Graduate Readiness for Online Learning

PROJECT TYPE: Dissertation

RESEARCHER/S: Laura Pannell

COLLEGE/DIVISION: College of Education & Psychology

DEPARTMENT: Educational Leadership & School Counseling

FUNDING AGENCY: N/A

IRB COMMITTEE ACTION: Expedited Review Approval

PERIOD OF PROJECT APPROVAL: 09/26/2012 to 09/25/2013

Lawrence A. Hosman, Ph.D.

Institutional Review Board Chair

APPENDIX C
LETTER OF PERMISSION

January 15, 2012

Ms Laura Pannell
1549 CR 478
New Albany, MS 38652

Dear Ms Pannell,

This letter serves as permission to conduct a survey as part of your dissertation for The University of Southern Mississippi. Your survey will involve eLearning students at [REDACTED] Community College. I look forward to reading your findings and please let me know if I may be of assistance to you in this process.

Sincerely,

Ellene McCrimon

Ellene McCrimon, PhD

Dean, eLearning

APPENDIX D

COPY OF SURVEY

Your participation is completely voluntary, and at any time you may feel free to decline participation or to discontinue your participation without penalty. Completion of the survey will take approximately 10 minutes. To uphold confidentiality, your responses are completely anonymous. Your responses or participation in this survey will NOT become part of your official college record or part of a grade in any online course. There is no connection between this survey and grades in any online course.

This project has been reviewed by the Human Subjects Protection Review Committee at The University of Southern Mississippi and the Community College Office of Research and Institutional Effectiveness, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. Questions regarding this survey may be directed to the College Office of Research and Institutional Effectiveness.

Section I.

Please select gender:

- A. Male
- B. Female

Please indicate your age:

- A. 18-20
- B. 21-25
- C. 26-30
- D. over 31

Please select the year below indicating the year in which you graduated from high school:

- A. 2012
- B. 2011
- C. 2008-2010
- D. 2005-2007
- E. 2000-2006
- F. 1999 or before

Section II.

Student Readiness for Online Learning

This survey is designed to assist you in rating your current readiness to pursue online education courses. Answer honestly by rating your agreement with each statement. Select the answer that best matches your feelings in response to each statement.

1. I am able to easily access the Internet as needed for my studies.

- A. Rarely
- B. Sometimes
- C. Most of the Time
- D. All of the Time

2. I am comfortable communicating electronically.

- A. Rarely
- B. Sometimes
- C. Most of the Time
- D. All of the Time

3. I am willing to actively communicate with my classmates and instructors electronically.

- A. Rarely
- B. Sometimes
- C. Most of the Time
- D. All of the Time

4. I am willing to dedicate 8 to 10 hours per week for my studies.

- A. Rarely
- B. Sometimes
- C. Most of the Time
- D. All of the Time

5. I feel that online learning is of at least equal quality to traditional classroom learning

- A. Rarely
- B. Sometimes
- C. Most of the Time
- D. All of the Time

6. I feel that my background and experience will be beneficial to my studies.

- A. Rarely
- B. Sometimes
- C. Most of the Time
- D. All of the Time

7. I am comfortable with written communication.
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time
8. When it comes to learning and studying, I am a self-directed person
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time
9. I believe looking back on what I have learned in a course will help me to remember it better.
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time
10. In my studies, I am self-disciplined and find it easy to set aside reading and homework time.
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time
11. I am able to manage my study time effectively and easily complete assignments on time.
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time
12. As a student, I enjoy working independently.
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time
13. In my studies, I set goals and have a high degree of initiative.
- A. Rarely
 - B. Sometimes
 - C. Most of the Time
 - D. All of the Time

Section III.

Did you take an online course as part of your K-12 experience?

- A. Yes
- B. No

If you answered yes, please select the type of course below:

- A. Online college course
- B. Online high school course
- C. Online vocational/technical course
- D. Other

APPENDIX E

COPY OF CORRESPONDENCE TO PARTICIPANTS

Dear Online Student,

My name is Laura Pannell, and I am a graduate student pursuing my Doctor of Philosophy degree in Educational Leadership at The University of Southern Mississippi. I am currently working on my dissertation, which is entitled *Predictors of Recent High School Graduate Readiness For Online Learning*.

I am looking for online students who are 18 years of age or older to participate in a brief online survey. I am asking for your help in completing this survey, which will take approximately 10-15 minutes of your time. Your participation is completely voluntary, and at any time you may feel free to decline participation or to discontinue your participation without penalty. By selecting the link below, you will be taken to the survey, confirm that you are 18 years of age or older, and agree to participate in the survey. This survey will take approximately 10 minutes to complete.

To uphold confidentiality, your responses are completely anonymous. All responses will be compiled by The Office of Institutional Research at the college, and no identifiable individual student information will be disclosed to me or any other party as part of the research. By participating in this research, you will be assisting education leaders obtain research in readiness for online learning.

Your responses or participation in this survey will NOT become part of your official college record or part of a grade in any online course. There is no connection between this survey and grades in any online course.

This project has been reviewed by the Human Subjects Protection Review Committee at The University of Southern Mississippi and the Community College of Research and Institutional Effectiveness, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. Questions regarding this survey may be directed to the College Office of Research and Institutional Effectiveness.

By selecting the below link and completing the survey, you are granting permission for these anonymous and confidential data to be used for the above described purpose. If you have any questions concerning this research project or if you would like a copy of the completed research, please feel free to contact me at pannellfarms01@gmail.com. Thank you for taking the time to complete this survey and for assisting me with my research.

Best regards,

Laura Pannell
Doctoral Candidate, The University of Southern Mississippi

By selecting this link, I understand that I am participating in this anonymous research survey and that I am 18 years of age or older.

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