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An Analysis of Student Preparedness Factors that Aid in Satisfaction and Retention in Online Courses and Programs

by

Kellie C. McGilvray

Submitted to the Graduate Faculty as partial fulfillment of the requirements for

The Doctor of Philosophy Degree in Higher Education Administration

Dr. Debra Gentry, Committee Chair

Dr. Ronald Opp, Committee Member

Dr. Berhane Teclehaimanot, Committee Member

Dr. Joan Millar, Committee Member

Dr. Patricia Komunecki, Dean
College of Graduate Studies

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May 2014
An Abstract of
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This study investigated the satisfaction and preparation of students learning online. Online learning is continuing to grow with each passing academic year. There has been an increase not only in the number of students learning online but also an increase in the number of institutions offering online courses. With this solid growth stream, institutions need to be aware of the learning curve that comes along both with teaching and learning online. If students and instructors are adequately prepared for their online courses, student satisfaction increases and possibly becomes a deciding factor about whether to continue learning online and/or to continue with the institution. The purpose of this study was to investigate whether students felt prepared to take an online course and what resources they needed in order to feel prepared for learning online. The results of the study indicated that students were not fully prepared for the amount of time needed to complete weekly assignments and discussions. The student participants also suggested that the faculty become better prepared for teaching online. One statistically significant correlation indicated that there was a positive correlation between preparedness and the delivery method used by each institution. This means the students were satisfied with the mode of delivery of information whether it was asynchronous or synchronous and
whether it was delivered through video lectures or learning management systems. This study provides a better understanding of ways to improve the dynamics of learning and teaching online.
I would like to dedicate this study to my husband, Brandon; my two beautiful daughters, Carlie Christine and Braelie Larsen; to my parents, Kathy and Bebop; and to my grandparents Theresa and Rollie.
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Chapter One

Introduction

My experience in teaching and advising students during a span of ten years increased my awareness about the importance of preparation for college students. I have chosen to investigate ways of improving student success within the online learning environment and fully preparing students to learn online. In my teaching experience, I have worked with students who have taken online courses but who have not received any prior training about how to navigate throughout an online environment or how to upload assignments within a course management system (CMS). My experience has suggested that many students enroll in online courses without any guidance and learn just enough about the online environment to complete the course without gaining the knowledge, skills, and confidence required to successfully complete another online course in the future. For many students, learning new skills that are required to navigate unfamiliar environments--i.e., online classrooms--is not an easy task. Students often enter higher education institutions with the assumption that high school has fully prepared them to succeed in college. However, this concept is not always the case. Some students need more individualized assistance and guidance to assure success during their college careers.

I am a passionate advocate for student-centered teaching and for providing students with the tools they need to succeed. As an online teacher and student advisor, I believe it is essential to prepare students for all types of learning environments. This preparation allows students to start out learning exactly what is expected of them prior to
enrolling in courses, whether these courses are conducted in an online or on-site environment.

The impetus for this study arises from my experience working with many frustrated students each semester—students who are experiencing their first online course but who do not possess the required knowledge, training, or experience with online learning environments to be successful. More specifically, students have experienced difficulty knowing how to upload documents into a dropbox, make a posting in a threaded discussion, take an online quiz, and join an online synchronous discussion. In short, seldom have they been fully prepared to spend the amount of time necessary each week to complete the required online tasks, nor have they been aware of how to learn effectively in an online environment.

High schools typically have prepared students to engage in the type of learning that takes place in an on-site environment. However, in a college environment students have the option of enrolling in different types of courses—e.g., on-site courses, hybrid courses, or online courses. Research has indicated that online courses are becoming increasingly popular as flexibility and access continue to be cited as key factors in course selection. According to Allen and Seaman (2010), more than 5.6 million students took at least one online course during the fall 2009 term, and according to Noel-Levitz (2011), 30% of higher education students now take at least one course online. As more students engage in online learning, the more they need to understand and possess the requisite skills to successfully navigate the CMS and learn course content in an effective and efficient manner.
My motivation for researching this topic has come from a number of students throughout my online teaching career who have expressed their panic during the first two weeks of class because they did not know how to upload an assignment or how to find the online resources needed to successfully complete the requirements of class. In my opinion, this should not happen. Students should feel comfortable taking courses within their learning environment, especially when those courses are requirements for their majors. If findings from this study can help combat panic-stricken students and increase effective and efficient learning in online environments, then this study will be valuable in helping future online students, online courses, and online programs.

Background of the Problem

Throughout history, the standard model for education has been that of an instructor standing in front of a group of people lecturing or using a monologue approach to teach or instruct students. This has been the prevailing model of education for college-credit courses and noncredit courses as well as business/industry training. However, the traditional model of education has been evolving as students select which type of environment best suits their learning preferences, lifestyle, and educational goals.

According to Draves and Coates (2007), the Internet has been one of the most influential learning tools to emerge within the past 500 years. Distance education, or distance learning, is a field of education that focuses on using teaching methods and technology with the aim of delivering education to students who are not physically present in a traditional educational setting, such as a classroom. The term “distance learning” has been a part of the American lexicon for well over 100 years. One of the earliest forms of distance learning included correspondence courses that occurred via the
postal service (Hiltz & Turoff, 2005). The term “distance learning” also appeared in the mid-1800s during the agrarian era, which opened up a new world of learning; this form of learning eventually transformed into an educational model that educators refer to as “online learning.”

Distance learning typically uses the Internet as a medium through which to conduct classes and therefore eliminates the need for face-to-face contact among instructors and students. Typically, online learning is more convenient and more cost effective than on-site learning. Online learning has been described as a process that creates and provides access to learning when the source of information and the learners are separated by time and distance or both (Honeyman, 1993). After the advent of the Internet, the flexibility and function of distance learning were elevated to a new level, which meant that students were able to access learning 24 hours a day, seven days a week.

Online classes can be taught synchronously or asynchronously. Synchronous communication occurs when teachers and students interact online at the same time, although they may be in different places, and engage in real-time communication via electronic means (The Institute for Higher Education Policy, 1999). On the other hand, asynchronous learning occurs when participants access course materials on their own schedule and do not engage in real-time communication with instructors. In asynchronous environments, neither students nor instructors are required to interact at the same time; however, students are still required to participate in asynchronous discussions and follow the weekly interactions taking place among class members. Asynchronous
learning is the more prevalent pedagogical method within the online learning environment.

The appeal of an online learning program attracts students initially, but course and program satisfaction are critical in maintaining and increasing enrollment, according to Overbaugh and Nickel (2011). According to researchers, the top reasons for taking online courses are flexibility, convenience, and learning enhancement. However, students have been reluctant to enroll in online courses because of problems associated with Internet access and ongoing questions related to technology (Song & Kidd, 2005). One study found that students’ biggest complaint about online courses was that they were a waste of time (Smart & Cappel, 2006).

Although some researchers have found online students to be less satisfied with their course experiences compared to the satisfaction levels of their face-to-face colleagues (Ocker & Yaverbaum, 1999), other researchers have found no significant difference in the satisfaction levels among students who matriculate in these educational delivery modes. Still other researchers have reported online students to be significantly more positive in their course evaluations, but few studies have investigated differences in satisfaction levels among students in online learning environments and students in on-site environments (Overbaugh & Nickel, 2011). In fact, many educators have implied that the high withdrawal rates and the resulting lower success rates among online students should disqualify online education as a high-quality alternative to traditional education (Distance Education, 2001).

Allen and Seaman (2010) reported that online education currently is and will continue to remain a component of the critical long-term strategy for increasing
enrollment in institutions of higher education. Institutions of higher education have found that online programs are essential in providing access to education and to increasing enrollment. The Sloan Consortium Report (Allen & Seaman, 2010) reported that more than 4.6 million students were enrolled in at least one online course during the fall 2008 term, a 17% increase over the number reported the previous year. This growth rate of 17% far exceeds the 1.2% growth rate of the overall higher-education student population.

With an increasing number of students enrolling in online education courses, students undoubtedly will encounter differences in their online learning experiences. A learning experience can be defined as anything that happens to students to promote learning, including what they observe, feel, hear, or do. It is likely that different students in various locations, learning at different times, will demonstrate a variety of preferences in their learning experiences (Simonson, Schlosser, & Hanson, 1999). Institutions should investigate the factors that most contribute to satisfactory learning experiences for students, determine which learning experiences positively influence online students, and identify which factors influence students to enroll in future online courses. Being prepared to successfully complete an online course requires more than simply logging on. If students are better prepared and self-motivated, they are more likely to have a positive experience in the online course and an overall positive experience with the institution.

Research has indicated that students need to experience a certain minimum level of satisfaction to feel they have successfully fulfilled the online course requirements. Once satisfaction is achieved or increased, retention is likely to follow. Despite the advantages that researchers have indicated accrue to distance learning students, these
student also have experienced problems, such as reduced quality of instruction, misuse of technology, poor attitudes of instructors and students, and lack of preparation to learn in an online environment. As more institutions offer online courses in response to increasing enrollments, and as students expect alternatives to face-to-face courses, it becomes important to understand what constitutes and what encourages successful student behavior in this environment (Morris, Finnegan, & Wu, 2005). Not all students are suited to learn in an online environment, nor should all subjects be taught online; these are additional issues that remain at the forefront of the debate and discussion about online education. However, if institutions can increase their willingness and commitment to preparing students prior to enrolling in online courses, satisfaction levels may increase, thus increasing the possibility that additional online courses will be offered.

According to the Sloan report (2010), the number of online enrollments have continued to grow at rates far in excess of the total higher-education student population, with the most recent data demonstrating no signs of slowing (Allen & Seaman, 2010). Institutions cannot assume that with the increase in online enrollment will come an increase in student satisfaction levels. By 2015, an additional 2.3 million students will be enrolled in college (National Center for Public Policy and Higher Education [NCPH], 2000). Even though enrollments have been increasing, retention and graduation rates have remained relatively low (Marrow & Ackermann, 2012). A satisfied online learner will more likely stay committed for the full duration of a course or a program (Lorenzo, 2007).
Online courses have been attractive options for students and teachers because these courses are not restricted by time and place. Although online learning has gained immense popularity and attention, recent studies have indicated that online courses experience significantly higher student dropout rates than conventional courses (Carr, 2000). According to Diaz (2002), this dropout rate has been one of the greatest challenges facing online educators and administrators. The high dropout rate among students enrolled in online courses has long been regarded as a problem for educators for several reasons. For some students, failing to complete their first online course, or failing the course altogether, may lower their self-confidence or self-esteem and discourage them from registering for future online courses (Moore & Kearsley, 1996).

No national study has been conducted to examine the dropout rates of online students in the United States; however, Carr (2000) has provided anecdotal evidence and pointed to studies indicating that online course completion rates are much lower than in traditional on-site courses. In fact, a recent article in the Chronicle of Higher Education reported that institutions of higher education experience dropout rates ranging from 20% to 50% for distance learners. Moreover, administrators of online courses have confirmed that dropout rates are often 10% to 20% higher in online courses than in their face-to-face counterparts (Frankola, 2000).

Although online learning has increased in availability and popularity, the high dropout rates have remained a challenging problem. Studies have been conducted regarding online-learner satisfaction and expectations as a whole, but more specific research needs to be conducted about the degree to which students are satisfied with their
online experience, especially in relationship to their preparation before enrolling in online courses. Unfortunately, the online learning experience has not been a positive one for a substantial portion of participating students (Herbert, 2006). This study will help identify the level of preparation students need to be successful in online environments. This knowledge may help achieve a balance between student satisfaction levels and successful student retention within institutions of higher education.

**Purpose of the Study**

The purpose of this study is to identify whether offering preparedness activities to students about to enter online learning environments helps them (a) succeed in online courses and (b) create learner satisfaction. More specifically, the purpose of this study is to help researchers, administrators, and educators understand the extent to which online learners are prepared to enter online learning environments by exploring (a) student satisfaction levels and (b) retention, or the intent to enroll in another online course. This study will incorporate Astin’s (1993) inputs-environment-outputs (I-E-O) assessment model. Astin’s I-E-O model will be used to identify the characteristics associated with online learning preparedness, environment, and satisfaction. Additionally, the purpose of this study is to investigate whether there is a difference between online students’ pre-class beliefs/expectations and their after-class experiences. This will be accomplished by exploring students’ perceptions about the training and knowledge they believe is necessary before enrolling in online courses. By exploring students’ perceptions about information, skills, and training they would have found valuable prior to enrolling in their first online course (as well as during the course), more targeted and specific preparation tools can be created.
The results of the study may benefit institutions’ strategic online learning plans by providing information that may support more effective online learning environments. The results may also aid in incorporating training for students prior to enrolling in online courses. Institutions may be able to implement online preparation strategies identified by this study that will assist future online students. Satisfaction is the state resulting from individuals feeling their needs and expectations have been realized or surpassed (McLoughlin, 2005). Using the results of this study could better prepare students for their online experience. Results of this study may also assist institutions in preventing attrition, increase retention, and advance student satisfaction in the online-learning environment.

**Significance of the Study**

This study is significant because prior studies have not addressed student preparedness for an online environment and its link to satisfaction and intent to enroll in future online courses. Studies have identified the characteristics of students who enroll in online courses and their reasons for enrolling in online courses; however, prior studies have not explored what inputs or prior experience a student needs prior to enrolling in online courses. Using the findings from this study within Astin’s I-E-O model may result in strategies that increase the effectiveness of online learning environments by identifying needed characteristics in the Input and Environment guidelines of the model. Furthermore, identifying (a) the types of information students need prior to enrolling in online courses and (b) the experiences students need during these online classes not only will help produce satisfied online students but also will help institutions implement training for online students. Further discussion and analysis of the issues of preparedness
and satisfaction can provide additional opportunities to enhance learner success as well as increased quality for online learners. According to Boston, Ice, and Gibson (2011), educational leaders and policymakers must take note of factors that affect the success of the online learner, especially as growth in this population continues at an exponential rate.

According to Steif and Dollar (2009), students must be helped to understand that they are the ones chiefly responsible for monitoring and regulating their own learning so they can contribute to their own success. Many scholars have argued that additional research is needed to investigate online students’ expectations and perceptions of meaningful learning and satisfaction (Bernard, Abrami, Lou, Borokhovski, Wade, Wozney, Wallet, Fiset, & Huang, 2004). In order to design courses or programs that fit the needs of online students, research is needed to discover what will help students succeed through preparation of high-quality online courses (Yukselturk & Bulut, 2007). Based on this research, the research questions for this study will include areas in which students feel they could have used additional preparation prior to taking an online course.

Higher education needs to remain in the forefront of offering knowledge and skills, even through distance learning, perhaps more so in today’s world. Because of the new online trend, there is more aggressiveness in marketing and competition, giving students more options, opportunities, and access to higher education. The online mode of learning not only reduces resource demands, which will benefit the institutions, but also provides a lot more flexibility for the learners to make best use of their time. (Parry, 2005).
**Conceptual Framework**

The conceptual framework used to guide this study is Alexander Astin’s (1993) inputs-environment-outputs (I-E-O) model. Astin developed the I-E-O model as a guiding framework for assessments in higher education. The premise of the model is that educational assessments are not complete unless they include information about student inputs, environment, and outcomes (Astin, 1993). In other words, Astin wanted to ensure that educational gains were not wrongly attributed to factors already possessed by students or factors within the environment. The I-E-O Model is an appropriate framework for this study because it guides the segmentation of characteristics into inputs, environment, and outputs. The I-E-O model allows the researcher to identify the influences and environmental factors that may have a possible relationship with preparation activities and satisfaction levels.

“Inputs” refer to student characteristics at the time of initial entry into the institution. “Environment” refers to the various programs, policies, faculty, peers, and educational experiences to which the student is exposed. “Outcomes” refer to student characteristics after exposure to the environment (Astin, 1993, p.7).

This study examines a number of independent and dependent variables. These variables are organized according to Astin’s I-E-O model (see Table 1).

<table>
<thead>
<tr>
<th>Input Variables</th>
<th>Independent Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Variables</td>
<td>High School GPA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Table 1

*Organization of Independent and Dependent Variables Based on Astin’s I-E-O Model.*
The input variables for this study include several demographic characteristics along with high school grade point average. The environmental characteristics within this study include level of preparedness, skill set in an online environment, level of technology availability, on-campus residence or off-campus residence, hours spent studying and participating in class, and whether the online course the student is taking is a required course or an elective course. Output variables in this study include academic achievement or anticipated grade (passing or failing), satisfaction with the course, and intent to re-enroll.

Another way to deal with outcome measures is to obtain students’ predictions or expectations of the outcome (satisfaction) based on inputs (preparation) and environment (learning online). If we researchers or educators are able to identify the expectations that student have of the course and the level of satisfaction they expect to experience, the likelihood of students experiencing success in online courses will increase.
According to Astin (1993), one class of outcomes which is not available for pretesting prior to encountering environmental factors is satisfaction levels. Using the I-E-O model provides educators, students, and policy makers with a basis for knowing how to achieve desired educational outcomes (Astin, 1993).

**Research Questions**

The primary goal of this study is to identify factors that influence student satisfaction levels and student retention in online learning environments. The specific research questions are as follows:

RQ1: What is the relationship, if any, between students’ perceived levels of preparedness and their actual preparedness after completing an online course?

RQ 2: What relationship, if any, exists between (a) student characteristics and (b) online satisfaction and preparation levels?

RQ 3: What relationship, if any, exists between (a) environmental variables and online satisfaction levels and (b) environmental variables and preparation levels?

Research Question 1 and Research Question 2 were answered by analyzing quantitative data, and Research Question 3 was answered by analyzing qualitative data. (See Appendix B to view a table that aligns the research questions with Alexander Astin’s I-E-O Model.)

**Methods**

A correlation analysis method will guide this research. This approach is useful for explaining why unexpected differences occur and for attempting to confirm, cross-validate, and corroborate study findings (Hanson, Plano Clark, Petska, Creswell, J.W. & Creswell, J.D, 2005). Descriptive statistics will also be provided to help identify the
percentages and central tendencies (i.e., mean, median, mode) of the data collected. The objective of descriptive research is to describe things (Kotler & Armstrong, 2006).

The use of multiple measurements and data sources will help ensure rigor within the study. The study will include a mid-semester online survey with direct open- and closed-ended questions. This study will determine whether preparation for an online course is related to satisfaction within the course. If preparation is low, determining whether colleges need to offer orientation to online learners will also be determined from the research. More specifically, the study will determine the level of preparation needed, and what types of services should be offered to students to prepare them to take an online course. An analysis of variance (ANOVA) was conducted to determine whether there were statistically significant ($\alpha=.05$) differences between the mean scores on the total preparedness scale among participants living in (a) urban areas, (b) suburban areas, and (c) rural areas.

**Population and Sampling Method**

The target population for this study consists of online students at three designated four-year private institutions within a metropolitan area. The sample will include all students enrolled in any online course during the Spring 2013 semester. The researcher will offer an incentive to participants consisting of ten dollar gift cards to area restaurants.

According to Moloney and Oakley (2010), more than one-half of all online enrollments were from community colleges, and the lowest enrollments were from small four-year colleges. Low enrollments in small four-year colleges influenced the sample selection for this study.
Data Collection

The level of satisfaction and preparedness of participants (i.e., students enrolled in an online course) will be assessed by an anonymous Internet-based survey and will not include any special manipulation during the semester. The primary source of data collection will be an Internet-based survey that will be administered at the midpoint of the semester. The midpoint of the semester was chosen in order to elicit data from students who are contemplating dropping the course.

During the midpoint week, students will log in to their online courses, where they will be provided with an invitation to participate in this research study and a website link directing them to an Internet survey. The survey will include a short series of both closed-ended and open-ended questions that will be designed by the researcher with help of a survey design specialist. A few specific items asked on the survey will include the following: 1. Per week, how many hours do you expect to spend online? 2. Per week, how many hours do you expect to spend preparing and completing assignments in this course? 3. Using a Likert scale, what is your proficiency with computer literacy? 4. Do you own a computer? 5. Do you have Internet access at home? 6. Demographic questions will be asked to identify age, gender, class level (freshman-senior), hometown (rural or urban), and what program they are enrolled in. 7. Using a Likert scale, what is your time management ability? and 8. Do you feel you have the necessary tools to take on online course? The participants will be prompted to answer a series of questions, including demographic information, class level, and their anticipated satisfaction level of
the course. The survey will include items designed to collect information about participants’ anticipated level of satisfaction with the class, about whether participants’ feel prepared to successfully complete an online course, and whether they plan to register for another online course the following semester. Once participants have submitted their survey responses, they will be directed back into their online course.

Data Analysis

The study will compare agreements and disagreement among the sources used. The results will be analyzed to help make changes in online courses and preparation. After the data has been collected and analyzed is completed, the results will be presented to the online-education-policy committees from each participating institution in this study. These presentations hopefully will result in a better online education atmosphere by incorporating suggestions based on the study results.

The results of this study will guide the three participating institutions in creating a better online learning environment for future students. The purpose is to enhance student preparation for online programs and increase student satisfaction levels at the three designated four-year private institutions.

Assumptions

Several important assumptions have provided a foundation for this study. They include the following:

1. Students’ lack of preparedness will negatively affect their satisfaction levels in the online learning environment, in turn lowering the retention rate in online-learning courses.
2. The students’ perceptions about online learning will be significantly different from the first day of class to the mid-point of class.

3. Students will respond honestly to the survey items.

4. Students will discover what type of education-delivery option they prefer and will continue to take online courses, hybrid courses, or choose face-to-face courses for the remainder of their college career.

5. Participating institutions will discover steps to take to help students prepare for online learning, and these institutions will be able to evaluate the strengths and weaknesses of their online courses.

6. Preparedness programs and training programs can be implemented to assist students with their initial online learning experience prior to the first day of class, and it is possible to understand what those preparedness systems are.

7. The researcher will be able to obtain an adequate sample size.

**Delimitations**

A delimitation of this study is that it will be conducted in one metropolitan area within three four-year private institutions. This study will not offer a clear outcome for large public schools offering online instruction, nor can the study determine similarities or differences in larger communities. Using a metropolitan area is an external-validity issue for the study.

Another delimitation to this study is that the study will be conducted over one semester. A better approach would be to use a longitudinal study to compare students’ preparedness levels during their first attempt at online learning, with their preparedness levels during their fourth or fifth online course. This research strategy would provide a
more accurate idea about levels of satisfaction, similarities, and differences between each course or possibly each semester. In a recent study in an online master’s-level program, researchers found that student perceptions became more positive as students took subsequent courses (Arbaugh, 2004). This limitation is an internal-validity issue in conducting this research in that such a short span of time could hinder some of the outcomes students would have.

**Limitations**

One limitation in this research is the reluctance that students might experience in reporting their honest opinions. Although they will be assured anonymity, students may not want to provide honest responses because of fear that their opinions and suggestions might have an impact on their grade. The survey results will in no way influence students’ grade because the researcher will ensure anonymity by not asking for students’ names or students’ identification numbers.

Attrition rates will not be calculated in this study, and the lack of this data is another limitation to the study. A lack of attrition data could also have an impact on the results in that the satisfaction levels of those participants who dropped out of the course would not be included in the data set. An exit survey would have to be provided to gather this data prior to the student dropping the course. Another option would be to interview scheduling advisors at each institution to calculate attrition rates in the online courses. Getting a perspective from the advisor could contribute to the data set as an added guide to the results and the theory.

**Definition of Terms**

Below are general definitions of key concepts within this study:
**Asynchronous Learning:** Asynchronous learning occurs when participants access course materials at different times according on their own schedules. Students and teachers are not required to be together at the same time, as in an online format, and so asynchronous learning is more flexible.

**Distance Education:** A learning experience that uses a wide spectrum of technologies to reach learners at a distance and is designed to encourage learner interaction and certification of learning (Greenberg, 1998). Students and teachers are separated by space and time.

**Hybrid Learning:** A learning experience that blends face-to-face learning with online learning (Hiltz & Turoff, 2005). Teachers have the option of incorporating classroom teaching along with online learning to instruct one course.

**Online Learning:** A course in which most or all of the content is delivered online and typically has no face-to-face meetings (Allen & Seaman, 2010).

**Peer Interaction:** The exchange of communication activities between two or more students within the same course (Huang, 2002). Peer interaction includes any type of online or phone conversations, in-person meetings, threaded discussions, or e-mails.

**Student Preparedness:** Student preparedness is a condition in which students feel ready for a learning environment through maximum involvement and satisfaction.

**Student Satisfaction:** Satisfaction is the state resulting from students feeling that their needs and expectations have been realized or surpassed (McLoughlin, 2005). In this study, satisfaction is defined by learner-reported feelings and interactions within the variables of the instructor, peers, course structure, and intent to re-enroll in another online course.
Synchronous Learning: Synchronous learning occurs when teachers and students interact with one another at the same time and experience real-time communication, although teachers and students may be in different locations (The Institute for Higher Education Policy, 1999).

Teacher-to-Student Interaction: Teacher-to-student interaction consists of interactions, contact, or communication that occurs between teachers and students during the administration of a course. Teacher-to-student interaction includes any type of online or phone conversations, in-person meetings, threaded discussions, or e-mails.

Threaded Discussion: A threaded discussion occurs within an online discussion board and allows students and instructors to discuss specific topics. Instructor or students can post messages or respond to messages at any time.

Summary and Organization of the Remainder of the Study

Online degrees and programs are already a part of the educational culture. Students today are aware of online offerings, and students in the near future will hold even greater awareness and interest in those online offerings, and in fact, these online offerings may constitute part or all of their college education (Bristow, Shepherd, Humphreys, & Ziebell, 2011). Distance learning uses the Internet to conduct classes without face-to-face contact between instructors and the students. Typically, online learning is assumed to be easier, more convenient, and cost effective. This study is designed to explore the factors that contribute to the level of satisfaction students experience in online courses. Student demand of online courses may continue to exceed the supply or the offerings of online courses, and in order to better understand factors that
lead to student satisfaction, a valid study needs to be conducted that supplies institutions with data-driven preparedness assessment and satisfaction assessment.

The conceptual model guiding this study is Alexander Astin’s (1993) I-E-O model. Using the I-E-O model, this study seeks to identify the variables that influence satisfaction and preparation within an online environment and result in students intending to re-enroll. Astin’s I-E-O model helps identify characteristics of the successful online students. An Internet-based survey administered at the mid-point of the semester will be used to identify the characteristics of online students in three designated institutions. The results of the survey will be interpreted through descriptive statistics and correlation analysis.

Online educators and higher education institutions need to determine whether they are ready to meet growing demands of learners in the coming years (Kim & Bonk, 2006). The goal of this study is to supply institutions with valuable data that may lead to improvement in and assessment of online courses. These improvements will lead to a better understanding of what students want from online learning and help to facilitate satisfied students.

Chapter 2 provides a thorough review of the literature relative to student preparation and online learning satisfaction. Chapter 3 presents the methods to collect the data as well as the processes of analyzing and evaluating the data. Chapter 4 presents the results of the study. Lastly, Chapter 5 provides a discussion about the research findings. It includes suggestions for the three private institutions involved in this study as well as recommendations for future research.
Chapter Two

Literature Review

Chapter 2 provides a review of the research literature related to students’ expectations, perceptions, preparation, and satisfaction with online learning. A review of this research literature provides guidance in understanding online learning environments. It also provides knowledge base containing information about how online learning environments have been trending in higher education and how these trends related to student satisfaction and preparation.

This chapter opens with a description of Alexander Astin’s (1993) input-output-environment (I-E-O) model. The chapter continues with background information related to the following topics: (a) online learning in higher education, (b) hybrid and online learning in higher education, (c) future development of online learning in higher education, (d) faculty development in teaching in an online environment, (e) learner outcomes in online courses, (f) student preparedness in online learning, and (g) student satisfaction in online learning.

Conceptual Framework for the Study

The conceptual framework used to guide this study is Alexander Astin’s I-E-O model. The I-E-O model was developed as a guiding framework for assessments in higher education. The premise of the model is that educational assessments are not complete unless the assessment includes information about student inputs, the environment, and student outcomes (Astin, 1993). The I-E-O model is an appropriate framework for understanding this research problem because it guides the segmentation of characteristics into inputs, environment, and outputs. The use of the I-E-O model forces
researchers to address not only the outcomes but also the inputs and environmental variables associated with any learning environment, in this case online learning. The primary intent of the I-E-O model is to account for possible changes that institutional environments have on student outcomes while also controlling for the input characteristics of entering students (Astin, 1993).

The concept of outcomes “refers to the talents we are trying to develop--Inputs refers to those personal qualities the student brings initially to the educational program--Environment refers to the student’s actual experiences during the educational program” (Astin, 1993, p. 18). The I-E-O model is an appropriate framework for understanding this research problem because it will identify the characteristics of online students’ input relative to environment and output.

**I-E-O Model (Astin, 1993)**

Inputs refer to the characteristics of the student at the time of initial entry into the institution; environment refers to the various programs, policies, faculty relationships, peers, and educational experiences to which the student is exposed; and outcomes refers to students’ characteristics after exposure to the environment (Astin, 1993, p. 7). In this study, input variables consist of several demographic characteristics and students’ grade point average (GPA). The environmental factors within this study consist of the degree to which students feel prepared to successfully complete an online class, skill set in an online environment, level of technology availability, residence status (living on campus or off campus), hours spent studying and participating in class, and program requirement (i.e., whether the online course in which participants are enrolled is a required course or an elective course). The outcome variables in this study include academic achievement,
satisfaction with the course, and intent to re-enroll in the university or in other online courses.

According to Astin (1993), one class of outcomes that is not available for predictive measurement prior to environment factors is satisfaction. In lieu of predicting satisfaction, researchers can ask students whether they expect to be satisfied with their environment and outcomes within the online learning environment. According to Astin, a good assessment is really good research, and the definitive aim should be to help administrators within higher education institutions make better choices and better decisions about managing distance learning programs. Using the I-E-O model provides educators, students, and policy makers with a better basis for knowing how to achieve desired educational outcomes (Astin, 1993). For the purpose of this study, the I-E-O model can be represented by the following figure:

![Input-Environment-Output (I-E-O) Model](image)

*Figure 1. Astin’s (1993) Input-Environment-Output (I-E-O) Model.*

**Input**

Students enter an educational system bringing their unique educational backgrounds and characteristics--many of which can be evaluated and measured. Online students should be capable of establishing communications and interactions with the teacher and other students. They also should be familiar with flexible learning and have
access to the learning environment from any location and at any time (Farajollahi, Zare, Hormozi, Sarmadi, & Zarfsanaee, 2010). Students’ motivation and attitudes also are of paramount importance in their success (Watson, 2010).

**Environment**

Upon entering the learning environment, students must be ready for the learning environment. Learner readiness consists of the following: (a) previous knowledge, (b) preparation for learning online, and (c) students’ primary learning style (Farajollahi et al., 2010). In this study, the environment will be addressed in the survey by the hours spent working on class assignments and preparing for class as well as whether students live on campus or off campus.

**Output**

For this study, the output will consist of course satisfaction and the intent to re-enroll in another online course or continue within the program or institution. According to researchers, the intended outcomes should include the following: educational success, improvement of communicative skills, positive views and satisfaction, time-management abilities, and development of thinking skills (Farajollahi et al., 2010).

**Background of Online Learning and Future Development**

Several evolutions have occurred since the beginning of higher education. One of the biggest evolutions was the Internet and how it enabled educational access to students independent of location and time restraints. Through the Internet, distance learning has provided increased flexibility to students. Students are no longer required to be physically present with their instructors, depending on the method of online learning used, nor are students and instructors required to be together at the same time (Valentine, 2002).
Distance learning arose out of the evolution of Internet use. Distance education, or
distance learning, is a field of education that focuses on teaching methods and technology
with the aim of delivering education to students who are not physically present in a
traditional educational setting, such as a brick-and-mortar classroom (Hiltz & Turoff,
2005).

The term “distance learning” has been in use for more than 100 years. One of the
earlier forms of distance learning was through correspondence courses by mail (Hiltz &
Turoff, 2005). The term “distance learning” appeared in the mid-1800s during the
agrarian era, born out of a need for educational opportunities to reach a geographically
dispersed population. That era opened up a new world of learning, which eventually
became what we now refer to as “online learning.” Moore and Kearsley (2005) observed
that distance education has evolved through several generations, and has changed from a
focus on mass production and independent study to a model that connects groups of
learners at any time and from any location. The development of computers and the
Internet has made distance learning easier and faster and has given rise to the “virtual
university,” the entire educational offerings of which are provided online (Gold &
Maitland, 1999). According to the National Center for Education Statistics (NCES),
online education availability, course offerings, and enrollments have increased rapidly
since the 1990s.

Distance learning was born out of a long history that can be traced back through
its initial method of delivery. It evolved from one-way instruction, through media such
as radio and instructional television, to two-way communication media, such as tele-
conferencing and online conferencing (Sherry, 1995). Distance learning has been
described as a process creating and providing access to educational content when the source of information and the learners are separated by time and distance or both (Honeyman, 1993).

“E-learning,” an abbreviation for “electronic learning,” began just around the same time that computers were developed for personal use. Although it is commonly believed that E-learning and distance learning are synonymous, they are, in fact, slightly different. The basic distinguishing characteristic between distance learning and e-learning is the physical separation of the student from the instructor and the classroom (Aranda, 2011). E-learning can be one component of a classroom environment and thus may be partially or wholly implemented. After the advent of the Internet, in 1982, the flexibility and function of distance learning were elevated to a new level, which meant that students were able to access learning 24 hours-a-day, seven days-a-week (Aranda, 2011).

Early forms of remote learning on computers were introduced in the 1960s. However, recent advances in technology have revolutionized teaching and learning; in the late 1980s, online learning began to spread with the increased use of the Internet. The first online courses began in 1987 and were accessed through a cable television channel, according to Modular Object-Oriented Dynamic Learning Environment (Moodle). Moodle is a course management system (CMS), also known as a learning management system (LMS) or a virtual learning environment (VLE). Moodle is a free Internet application that educators can use to create effective online learning sites.

Online education has evolved from playing a minor alternative role in education during the late 1980s to playing a much more central role at most universities
(Larreamendy-Joerns & Leinhardt, 2006). As time passed, institutions began integrating new learning systems into their classrooms and experimenting with learning management systems that were user friendly and effectively dictated learning and education.

At the end of the 1990s, learning management systems (LMS) were used. Learning management systems are virtual platforms that are used to support online courses. There are many learning management systems to choose from that offer a variety of services at a variety of prices. Each institution implementing online learning chooses an LMS based on its needs and services.

Some universities started to design and develop their own systems, but most of the educational institutions started with systems that were commercially available on the market. The earliest form of online education was not nearly as efficient as it is today (onlineeducation.org). Course materials could be accessed via the Internet, where students would find lessons and lectures prepared by their instructors, but the online material consisted almost entirely of text. There were few images, and almost all of them were tiny and of poor quality. While homework assignments could be posted online, most students were still required to print their assignments and mail them to their professors. The first online correspondence school, the University of Phoenix, became popular in 1989. It was not a fully accredited institution at that time, however, and it was not until 1993 that the first accredited university, the Jones International University, provided meaningful opportunities for students who wished to pursue online education (Smarty, 2010).

From the mid1990s through the early 2000s, computer technology and, as a result, the Internet experienced tremendous advancements. New forms of multimedia changed
the way individuals and organizations around the globe used the Internet to communicate. Because of these advancements, online education became much more efficient and even more accessible (onlineeducation.org).

Colleges and universities have tapped into the online market in an attempt to increase revenues, expand educational reach, and recover a portion of the investments they have made in technology (Holzen & Rickman, 2003). Reasons for offering online courses include improving student access, more efficiently meeting students’ needs, addressing students’ interests, and providing educational content based on students’ learning styles and work schedules. Additional reasons for offering online courses include higher degree completion rates, increased enrollment, and increased return on investment in online students (Lim, Kim, Chen & Ryder, 2008).

**Online Learning**

Online learning, for the purpose of this study, is characterized by using the Internet to conduct classes without face-to-face contact between instructors and students. Online courses have been defined as those courses in which at least 80% of the course content is delivered online (Allen & Seaman, 2010). Classrooms can be accessed by students and managed by the instructor synchronously or asynchronously. Synchronous communication occurs when teachers and students are present at the same time, although they may be in different locations, and engage in real-time communication (The Institute for Higher Education Policy, 1999). Asynchronous learning occurs when participants access course materials on their own schedule, and thus asynchronous environments offer students increased flexibility. Neither students nor instructors are required to be together at the same location or at the same time. Online learning is a relatively new social process
that has begun to act as a complete substitute for face-to-face learning. This substitution approach is likely to drastically change the way that educational content in typical college courses is delivered and accessed (Hiltz & Turoff, 2005). According to Connolly and Stansfield (2007), e-learning has gone through three distinct generations. The first generation, these authors have explained, took place from 1994 to 1999 and was marked by a passive use of the Internet (i.e., traditional materials were simply repurposed to an online format). The second generation took place from 2000 to 2003 and was marked by the transition to higher bandwidths; rich, streaming media; increased resources; and the move to create virtual learning environments that combined (a) access to course materials, (b) communications, and (c) student services. Online learning is currently experiencing the third generation, which has been marked by greater collaboration, increased socialization, project-based learning, and reflective practices. In this third generation, electronic tools include e-portfolios, wikis, blogs, social bookmarking and networking, and online simulations. Additionally, the third generation has been increasingly influenced by advances in mobile computing.

Online classrooms have been linked to a variety of positive outcomes, such as increased interaction and engagement, increased understanding of student comprehension, increased participation due to anonymity, increased class attendance, enhanced conceptual reasoning, and cognitive integration between concepts (Fies & Marshall, 2006; Kennedy & Cutts, 2008; Elliot, 2003; Nicol & Boyle, 2003). Learners enter the online community with a need to feel socially present and interact with their peers online. Online classes provide many advantages both for students and the colleges and universities that offer such courses.
Effective online programs feature involvement of students in the life of the classroom as a key element. Effective online programs result in providing students with a “voice” in the classroom and consider this a linchpin around which education is built (Tinto, 1993). Providing students with opportunities to express their “voice” to results from actively involving students in the learning process. They need to be valued members in the classroom and be provided support through faculty and their peers (Tinto, 1993). Students in online learning environments may support each other’s “voice” through threaded discussions and online chat sessions. When learning online, students have the ability to voice their opinion and discuss relative topics in a threaded discussion board. Some students find themselves learning more in an online environment, while other students find that learning online does not accommodating their learning styles or enhance their motivation to learn. Students are very diverse in their learning styles and learning abilities, and it is uncommon to be able to teach an entire class with an emphasis on only one learning style (e.g., auditory) and expect all the students to experience the same learning outcome. Overall success is measured as an outcome of assessment and indicates the likelihood a student will thrive in different areas (Tinto, 1993).

Other studies (Bowden & D’Alessandro, 2011) have shown that online classrooms not only facilitate and enhance student learning and the co-production of learning, but online learning is also a beneficial augmentation to the traditional lecture format and adds value to students’ learning experiences. According to Herrington and Oliver (1995), the learning process has three mutual elements: learner, implementation, and interactive multimedia.
Interactive multimedia may be implemented through Internet-based e-learning. Students have the opportunity to investigate other areas of thought, provoking learning and assessment through means of resources, decision making, and creative thinking skills (Boulton, 2002).

**Hybrid Learning**

In higher education, there are three main types of courses from which students can choose: (1) traditional on-site courses, which typically consist of lectures provided by a professor in the classroom; (2) entirely online courses, in which students do not meet physically in a brick-and-mortar classroom but instead interact with course materials, other students, and the instructor through a learning management system that the instructor manages; and lastly, (3) hybrid courses, in which students and the instructor both utilize online or e-components and meet together physically in a brick-and-mortar classroom. All three options provide unique pedagogical advantages that can result in satisfaction for students. Hybrid learning is a learning experience that blends face-to-face
learning with online learning (Hiltz & Turoff, 2005). Hybrid learning also has been referred to as blended learning. The hybrid model assumes that online learning can be enhanced during one or more face-to-face sessions. According to Rovai (2003), these face-to-face sessions foster academic and social integrations with the school because professors have the options to incorporate classroom teaching along with online learning to instruct one course.

Wu and Hiltz (2004) have suggested that administrators and instructors are realizing the benefits of hybrid learning based on the increasing number of courses that have been offered. According to these authors, the blended format has been the most popular mode of instruction and has demonstrated success rates equal to, or in many cases higher than, their fully online or face-to-face counterparts. The hybrid learning model has been shown to be an effective and efficient way of expanding the learning process because it supports in-depth delivery and analysis of knowledge while increasing student satisfaction (Buzzetto-More, 2008). According to Buzzetto-More (2008), educators have emphasized the following student characteristics as crucial both in hybrid and online learning environments: technological preparedness, willingness to be motivated, willingness to be self-directed, adoption of an optimistic mindset (Buzzetto-More, 2008).

Researchers conducted an empirical investigation of 153 students and examined student achievement and satisfaction in different learning environments. The study concluded that students in a blended learning environment experienced a significantly higher achievement level and reported significantly higher satisfaction levels than students in a traditional learning environment (Lim, Kim, Chen, & Ryder, 2008).
Future Development of Online Learning

Research has suggested that distance learning will transform higher education by providing interactive instruction and outcome assessment as alternatives to traditional face-to-face instruction. Many teenagers and future college students have become accustomed to learning and living through the Internet, and their adaptation to learning online has been a natural process (Olson, 2001). Anecdotal reports from universities that offer online learning have supported the conclusion that residential students enroll readily in online distance learning courses. Many still want a campus-based college experience, but they value the flexibility of online instruction (Olson, 2001).

Many researchers have agreed that virtual learning will not replace face-to-face pedagogy entirely; however, they also have agreed that online learning will definitely play an increasingly important role in the future of higher education (Hoare, 2001). Some researchers have suggested that online and hybrid courses offered by only a few hundred “mega-universities” that operate on a global scale will be able to support constructivist, collaborative, student-centered pedagogy (Hiltz & Turoff, 2005). Collectively, the vast majority of research has suggested that online learning cannot be ignored as it will continue to play a significant role in the future of higher education. Using the results from the research and through the usage of the I-E-O model will help keep the three designated contributing institutions competitive as they will be able to conduct assessments throughout the online programs and courses based on the results.

According to Singh, O’Donoghue, and Betts (2002), the implementation of online learning should be seen as enhancing rather than a replacing existing best practices. In a study performed at the University of Western Sydney, researchers administered surveys
to students to measure their competence with computers and how much they like using the computer for learning. The respondents also answered questions regarding face-to-face learning and online learning activities. Researchers reported that students’ preference for online learning indicated that there is a demand to cater to students’ needs and to maintain a desirable balance between face-to-face and online modes of delivery. However, as Pena and Yeung (2010) have suggested, some students will always favor face-to-face instruction as opposed to online delivery.

While research studies have shown that a rapidly growing number factors affect student satisfaction levels in online learning (Yukselturk & Yildirim, 2008), what is missing from the literature is an examination of online learning preparedness and its link to online course satisfaction. It is essential to investigate what contributes to student satisfaction in an online learning environment for a satisfied student and acceptable or preferred online learning design.

The debate among researchers regarding online learning has not focused on whether online courses will be a component within university curricula; university administrators and educators have acknowledged that online courses and advances in technology will be part of the future in higher education (Folkers, 2005). For example, Jones and Kelley (2003) have reported that in 2000, 75% of colleges and universities in the United States offered some form of distance education, compared to just 33% in 1999. Online degrees and programs already have become a foundational component of the educational culture. According to the eLearners website, the number of higher education institutions dedicated solely to distance learning instruction has grown to more than 86 colleges and universities (Braun, 2008). These institutions have recognized the
growing number of adult students and have attempted to capture this student demographic with online course offerings. Online learning has even begun to penetrate the K-12 education system, adult learning (i.e., “non-traditional” student learning), and corporate training.

According to Hiltz and Turoff (2005), more than 50% of adult U.S. students returning to college or who are working students indicated they prefer the convenience of online options, whether they actually enroll in these online courses or not. Although students may prefer to learn online, not all instructors prefer to teach online. According to researchers, the role of the teacher needs to be recognized as an important component of students’ success (Boulton, 2002). Students also need to be confident that they can be successful in the online learning environment (Sloan Consortium, 2002). Student satisfaction has been linked to student performance, and student satisfaction is an important element in the investigation of faculty satisfaction (Bolliger & Wasilik, 2009).

**Faculty in Online Learning**

Although this study focuses on students’ perceptions and expectations of online learning, the faculty role is considered in identifying student satisfaction in online learning. Early attempts at online learning were hampered by resistance from traditionalists within the education field. The demands of virtual teaching are different than those of the conventional classroom. According to research, instructors reported that online teaching brought many advantages and disadvantages when compared to traditional teaching. The major advantages of online education were found in increased flexibility because instructors were not obligated to be present at a particular location or classroom (Yukselturk & Yildirim, 2008).
Across the board, professors either prefer teaching online or prefer the classroom, but gaining experience in both educational venues contributes to increased quality and well-rounded faculty members. Not all professors are certified to teach online and must complete a certificate of training before teaching their first online course, according to studies from other institutions. Some institutions require teachers to successfully complete a training course prior to teaching online. The training requires faculty members to understand the policies and procedures in teaching online, understand how to navigate through a course management system, create opportunities for dialogue among students, create a well-balanced online learning community, and understand the expectations associated with learning and teaching online.

According to research, the ideal virtual teacher should possess six key characteristics: (1) an interest in innovation and in technology, (2) creativity and enthusiasm, (3) a desire and ability to work collaboratively, (4) a commitment to put students first, (5) a willingness to work with parents, and (6) technology skills and the ability to adapt quickly to change (Barker & Wendel, 2001). Student success stems from the ability of the instructor to accurately guide students through the semester by applying these characteristics. However, even if instructors possess these characteristics, this does not indicate a willingness to teach in an online environment.

Faculty members realize that online learning can provide increased opportunities; however, they have expressed concerns that online learning courses may not offer the full learning benefits provided through traditional face-to-face courses (Mansour & Mupinga, 2007). According to the data, it is estimated that between 2% and 12% of faculty are engaged in some form of teaching through technology beyond the campus-instituted
model (Saba, 2005). Almost 30% of business faculty members surveyed in a study comparing data with online learning experiences in AACSB-accredited college business courses in the United States reported that they do not intend to teach an online course (Wilkes, Simon, & Brooks, 2006). The perception that online learning environments may not provide as rich a learning experience as do traditional learning formats is shared by college administrators. As many as 40% of administrators participating in a nationwide study indicated that they believed the quality of online courses was inferior to the quality of traditional courses (Allen & Seaman, 2006).

One study sought to identify differences between faculty experiences and student experiences with online learning courses in 2006 and then discuss those differences in relationship to differences that had been found in 2000. A survey approach was used in both 2006 and 2000. In 2000, two questionnaires were developed that identified (1) faculty experiences with online learning courses, and (2) student experiences with online learning courses. Both questionnaires included sections that polled the satisfaction levels, concerns, and motivation for taking online learning courses (Alexander, Perreault, Zhao, & Waldman, 2009).

Faculty willing to teach in an online learning environment have continued to experience some concerns while attempting to embrace this new way of delivering education. In the same study with AACSB business colleges, faculty members expressed that they were concerned about time, technology support and training, and sustaining high levels of interaction among the students. The time required to teach an online course is typically determined by instructor experience and institutional policy. Instructors typically spend more time preparing materials, grading student work, and
interacting with students in online courses than traditional courses. Online courses operate on a 24-hour a day, seven-days-a-week basis and should be treated as such, whereas students in traditional courses meet one to two times a week and require additional engagement upon request.

As for technical support and training, researchers have suggested that minimum training and expectations should be provided that enable instructors to become familiar with the features with the course management system and incorporate basic instructional support technologies, such as streaming media (Mansour & Mupinga, 2007). Lastly, student engagement has continued to be an issue for online courses. According to Wilkes, Simon, and Brooks (2006), traditional courses offer increased opportunities for interaction and discussion than do online courses. Faculty members in this study indicated they were satisfied with online courses and emphasized that institutions offering online learning must make a continuous commitment to provide resources needed to deliver and support online courses (Alexander, Zhao, Perreault, & Waldman, 2009).

Components of faculty satisfaction should be investigated as online education becomes more prevalent and dynamic forces such as adoption rates, learner expectations, levels of support, and other conditions continue to change (Bolliger & Wasilik, 2009). The Sloan-C pillars provide a foundation for the evaluation of learning networks. Faculty satisfaction is one of the five pillars of online learning quality from the Sloan Consortium Foundation, together with student satisfaction, learning effectiveness, access, and institutional cost effectiveness (Sloan Consortium, 2002). The Sloan Consortium Foundation was created to increase the scale and breadth of online programs and quality
of learning. Figure 3 illustrates all five pillars of the Sloan-C framework, which includes learning effectiveness, faculty satisfaction, access, scale, and student satisfaction.

Figure 3. Sloan-C Framework (2005).

Sloan-C uses a quality framework that focuses on five pillars that support quality learning environments. The Sloan Consortium (Sloan-C) has suggested that academic knowledge and industry knowledge can complement each other and improve the quality of learning in both sectors. In particular, practitioners can learn how to improve higher-order learning online, how to adapt technology to continuously improve interaction, how to use assessment to mainstream best practices, and how to combine learning (Moore, 2005).

**Online Enrollment and Sustainability**

Professionals in many fields have begun to realize that long-term job security depends on their ability to facilitate an atmosphere of lifelong learning (Hiltz & Turoff, 2005). As a result, the future workforce needs to consist of independent thinkers and decision makers who can think on their own, provide solid solutions, solve problems, and
communicate in writing with a high degree of proficiency. Personalized, technology-based education can address these concerns in the form of distance education (Saba, 2005). The generation of students today is aware of their options, and a relatively safe prediction is that the students of the near future will have even greater awareness of their options and express interest in online learning as one component or perhaps the entirety of their college education (Bristow, Shepherd, Humphreys & Ziebell, 2011). According to Lorenzetti (2005), the average age of online students is three years older than the average age of on-campus students.

A study published in 2011 by the U.S. Department of Education found that from 2000 to 2008, the percentage of undergraduates enrolled in at least one distance education class expanded from 8% to 20%, and the percentage enrolled in a distance education degree program increased from 2% to 4% (NCES, 2011). According to the Sloan Consortium Report (YEAR), more than 4.6 million students were enrolled in at least one online course during the fall 2008 term, a 17% increase over the number reported the previous year. This 17% increase far exceeded the 1.2% growth of the overall higher education student population.

In addition to these statistics, the Sloan Consortium (2009) reported that more than 5.6 million students were taking or have taken an online course, which represents a 30% growth. These figures are similar to a report by NCES (2003), which cited a 2001 study concluding that 55% of all two-year and four-year institutions offered distance education courses at both the graduate and undergraduate levels (Bristow, Shepherd, Humphreys, & Zieball, 2011). According to Tucker (2001), it was estimated that this figure would grow to some 90% in the coming academic years. Whatever the reasons
may be that account for the success of online student learning, the increasing number of online students has suggested that it has become an increasingly popular option. A growing body of academic research has confirmed that online courses are indeed a significant, rapidly growing and increasingly popular component of higher education and higher learning (Bristow, Shepherd, Humphreys, & Zieball, 2011).

Online enrollments have continued to grow at rates far in excess of the total higher education student population, with the most recent data demonstrating no signs of slowing, according to the Sloan report. Because the number of online courses and programs has increased, the number of institutions providing them also has increased. In fact, beginning in the fall 2007, university systems in Maryland and Texas began to require undergraduates to complete 12 credits in alternative learning modes, including online learning. This initiative has sent a message to the larger educational community that administrators within the Maryland system have recognized that online learning enhances students’ higher education learning experience (Lorenzetti, 2005). The Maryland system has reported a freshmen retention rate of 64% at a six-year graduation rate of 42%. These statistics are impressive insofar as they accurately reflect the experiences of the students in Maryland.

The Minnesota University system has been advocating for a policy that requires students earn 25% of credits online by 2015 (Parry, 2005). These statistics suggest that higher education systems will likely expand access, decrease time spent earning a degree, save money, manage classroom needs, and much more (Parry, 2005) through the use of online learning.
According to Parry (2005), the online mode of learning not only reduces resource demands, which benefits higher education institutions, but it also provides increased flexibility and enables students to make the best use of their time (Parry, 2005). Web-based courses free up students so they have the opportunity to engage in more campus activities, and the more involved students are within the campus community, the higher the sense of belonging and greater the likelihood that they will complete their graduation requirements (Pascarella & Terrenzini, 2005). The education model has to be adapted to suit this generation of learners, who want to learn, but they want to learn only what they have to learn, and they want to learn it in a style that best suits their lifestyles and preferences (Pena & Yeung, 2010). An assumption that an online option of learning will suit all learners may not be realistic. Some professors and administrators say that today’s students prefer Internet-based courses because their generation lives online (Parry, 2010). Not only does this generation live online, but the global population lives and operates online.

Advocates have argued that the role of the university should not be lost in an effort to compete with non-traditional providers. For example, students may be unsure of what they want or need, and in response, the traditional system (instructor-lead lectures) provides guidance, structure, and organization that many students find very helpful (Twigg & Oblinger, 1997). On the other hand, other researchers have argued that institutions of higher education need to align their training of future graduates with the changing business world and provide students with opportunities to learn independently. For example, Nycez and Cohen (2007) found that e-learning is important in building a technologically literate workforce as well as for meeting society’s continuous need for
rapid, lifelong learning. According to the student tracking early alert tracking system (STEAR), the United States has been competing globally for high-value jobs and careers, and our higher education system must prepare students for this reality (stear-retention.com, 2012).

A global study conducted by a researcher at King Saud University of 201 female students ranging in age from 18 to 24 and using a 10-question pencil-and-paper survey revealed that 27% of the students had little or no understanding of what online learning concepts were. The results indicated that 70% of participants had prior experience with online learning and that 27% had no prior experience with online learning. The results also indicated that 51% of participants found online learning more interesting and that 48% were not sure or had no interest in online learning.

While the researcher indicated that overall satisfaction rates were high and that students were satisfied with the opportunity to learn online, the study’s emphasis focused on students’ opinions about their experiences and perceptions towards online learning (Al-Fahad, 2010). Fahad also predicted that distance education will continue to have an impact on higher education. However, he also reported that online environments cannot be effective and thrive without considering students’ needs and preferences. In response, online learning environments should be carefully designed to maximize student satisfaction.

**Online Learning Preparation**

Tinto (1993) indicated that the problems of attrition in higher education are not only associated with the number of students who fail to complete collegiate program, but he further suggested that this problem also implicates issues related to a lack of academic
preparedness (Tinto, 1993). Preparation is part of the Input characteristics in Astin’s I-E-O model. According to researchers, the motivating factors that influence students to enroll in and complete online courses include flexibility, effectiveness, and the growing competitive environment that encourages ease of access (Lee & Choi, 2010). Researchers have suggested that students enroll in online courses for a variety of reasons: (a) they might want to see what it is like to learn in an online environment, (b) they may not be able to attend an on-site class, (c) they work full time, (d) they have family obligations, or (e) they simply enjoy the convenience of online learning. Whatever the reason for enrolling in online courses, students generally assume responsibility for their own learning when taking an online course in a way that may not be expected of them in an on-site course (Allen & Seaman, 2010). Not only do these students have several reasons to take online courses, but they also possess several characteristics that contribute to their success. Researchers have indicated that successful online learners voluntarily seek further education, have higher expectations, possess more discipline, are older than traditional students, enjoy learning for its own sake, demonstrate good thinking skills, are able to work independently with limited structure, and recognize the value of interacting with other online peers (Palloff & Pratt, 2001). Online learners convey attitudes of greater control and responsibility toward their learning (Schrum, 1998). According to Simonson (2006),

Many leaders reported that they felt that it takes more effort to teach online, that it is harder for students, and that it is more difficult to evaluate the quality of online courses. In spite of the belief that online education is more difficult, this approach is perceived favorably by most who responded to the Sloan survey. (p. 8)
Successful online learning requires special student skills: (a) computing, (b) literacy discussion, (c) time management, and (d) interpersonal interaction (Rovai, 2003). In the following two quantitative studies, conducted by two different institutions, the researchers discovered characteristics needed to succeed in an online learning environment. Nash (2005) conducted a study at Coastline Community College to discover reasons students dropped or failed their online courses, and the number-one issue was an inability to manage time effectively. Students either tried to accomplish too much in one semester, or they had difficulty managing their time. Online learners must generate time management skills, log on often to the course, make sure they meet all deadlines for assignments and activities, and communicate with their peers and instructors at their own pace. A major objection to online learning is that it is more work. Not only do students have to learn the material without an instructor, but the students are also required to make contributions through threaded discussions that are visible, permanent, and graded (Olson, 2001).

The second quantitative study conducted at Deakin University used a satisfaction study to gauge students’ perceptions of studying in an online environment. Researchers surveyed 761 students and (using a multivariate linear regression) found that most respondents indicated they spent four hours a week or fewer studying, whereas it would normally be expected that students would spend 8-10 hours per week to be fully prepared for the weekly activities. According to that study, students were spending only half the time preparing and executing the information provided in an attempt to successfully complete each unit or weekly assignment (Palmer & Holt, 2008). Students found it difficult to motivate themselves or difficult to prioritize their assignments, and they
indicated that it was tempting to leave their work until the last minute (Upton, 2006). A multivariate linear regression of all the questionnaire items was performed against an overall satisfaction item. One factor that positively influenced students’ satisfaction with an online course was how confident they felt about their ability to communicate and learn online.

Good students seem to know when they are learning. They understand their ability to absorb material, and this has become increasingly evident with the growing availability of online learning. Online learning can contribute to the level of success each student achieves (Steif & Dollar, 2009). In situations where the online component of learning is mandatory, there is a strong expectation that the learners are competent in using the computer (Pena & Yeung, 2010).

According to NCES (2011), a competency is defined as a combination of skills, abilities, and knowledge needed to perform a specific task. The opportunity to enroll in online courses has greatly increased the flexibility of learning. However, a major challenge to the learners is the covert assumption that they are competent in using computer technology and therefore are able to learn effectively online. The competence in using computer technology and the multifaceted digital skills required by learners to function effectively in digital environments goes beyond basic technical skills and access (Pena & Yeung, 2010). For example, Cole (2000) identified the added importance that online distance education has placed on reading and writing skills and the need for online students to have these additional skills. Since online students mainly work independently, they need to be able to recognize when information is needed and have
the ability to locate and evaluate information effectively (American Library Association Presidential Committee on Information Literacy, 1989).

Courses using electronic networks make certain demands on students. Inevitably, using a networked computer as a study tool involves basic ICT skills that need to be mastered, and this eventually leads to a familiarity with the relevant hardware and software tools (Macdonald, Heap, & Mason, 2001). For those who are less competent in using computers and technology and do not feel comfortable or interested in using them, the level of satisfaction is likely to be lower when assessing online delivery modes (Pena & Yeung, 2010). Students hesitate to enroll in online courses due to problems associated with Internet access and ongoing questions related to technology (Song & Kidd, 2005).

Within higher education, technology can provide pressures and opportunities that make transition possible but not a given. In institutions where an online learning component is mandatory, students are expected to be competent in using the computer (Pena & Yeung, 2010). The importance of technological preparedness and the attitudes of students has been acknowledged as playing a crucial role both in hybrid and online learning outcomes (Buzzetto-More, 2008).

If Internet-based learning environments are to benefit students, then it is important from the student’s perspective that these environments are not seen as overly complex or difficult to use (Saadé & Kira, 2006). If the technology is perceived as being complex and not useful in enhancing performance, students may become distracted within the online environment. There are unexpected failures and unanticipated successes that accompany technology; however, updated versions of software applications and course
management systems seem to undermine dialogue and increase the possibility of preventing the development of communication skills (Saadé & Kira, 2006).

Skeptics have indicated that systemic educational problems cannot be solved simply by technological solutions alone because technologies are merely tools, the successful use of which may entail a paradigmatic shift in the orientation of all involved in teaching and learning (Altbach, Berdahl, & Gumport, 2005). Muilenburg and Berge (2005) reported that students who were comfortable using online learning technologies had a higher perceived satisfaction level than those who were not familiar with the technologies.

It is inevitable that students will incur problems as they learn online, whether these problems are the result of lack of preparation, low levels of satisfaction, low grades, or difficulties using computers. Overall, students must decide whether they want to accept those responsibilities and forgo the concerns with learning online.

Researchers have indicated that online learning places more responsibilities on learners than traditional face-to-face learning does (Moore & Kearsley, 2005). This suggests that a different learning strategy, such as self-regulated learning, is necessary if online learning is to be effective. Buckley states that there is a paradigm shift when transitioning from face-to-face learning to online learning. In the classroom, faculty members determine the pace, content, pedagogical style, and delivery method, and material that is covered throughout the semester. However, in online courses, many of these classroom logistics are determined more by students as they assume increased responsibility for the learning process. Buckley (2002) has recommended that students
who recognize this paradigm shift and enroll in online courses will also accept the responsibility to learn and succeed.

**Student Satisfaction**

Student satisfaction is a condition resulting from students feeling that their needs and expectations have been realized or surpassed (McLoughlin, 2005). Student satisfaction also has been defined as a short-term attitude which arises from students’ evaluation of their educational experience, which is subjective in nature (Elliot & Shin, 2002). Student satisfaction has been viewed by education professionals as one of the key variables in determining the success or failure of distance learners, courses, and programs (Yukselturk & Yildirim, 2008). In the context of online learning, researchers have suggested that learner satisfaction is an important factor in retention, especially in online courses; as a result, instructors, administrators, and policy makers involved in online learning should be concerned about increasing learner satisfaction (Chiu, Sun S., Sun P., & Ju, 2007). Lorenzo (2007) has suggested that a satisfied online learner almost always and logically means that he or she will stay committed for the full duration of a course (Lorenzo, 2007). Satisfaction and retention are key elements while students are earning their degrees. Perceptions about their learning experiences can influence students in their decision to continue with online courses (Carr, 2000) as well as levels of satisfaction with overall online learning experiences (Kenny, 2003).

Student satisfaction, according to the American Distance Education Consortium (ADEC, n.d.), “is the most important key to continue learning” (para. 5). Like any other organization, higher education providers rely upon offering high-quality, satisfaction-creating experiences in order to remain competitive within the sector. A quality
education goes beyond simply providing a program built on academic rigor and the functional delivery of informative classes (Bowden & D’Alessandro, 2011).

In a 2009 study using the Noel-Levitz Priorities Survey for Online Learners (PSOL) at a medium sized Midwestern state university, researchers found that 40% of all online learners did not complete their online course. The survey identified variables that contributed to this high dropout rate, including faculty responsiveness to student needs, quality of online instruction, timely feedback, lack of student and instructor interaction, and availability of financial aid (Herbert, 2006). A chi-squared goodness of fit test was conducted to compare the frequency of the variables for the student who did not complete the course and found that response rate and student-to-instructor interaction were the primary reasons for non-completion (Herbert, 2006). The results of an independent t-test indicated that students who successfully completed the course were more satisfied with their online experience than those who did not successfully complete their online course (Herbert, 2006).

Student satisfaction within the online learning environment and within traditional face-to-face environments has received a great deal of attention. There are a number of reasons institutions have dedicated efforts toward to meeting the needs of students. More importantly, as the paradigm shift changes from a demand for face-to-face courses to a demand for online courses, institutions need to understand the factors that affect student satisfaction levels, such as interaction with instructors and peers, course structure, institutional support, and flexibility.

While promoting the quality of online programs in today’s market, higher education institutions have considered student satisfaction to be one of the major factors
contributing to retention and success in online learning courses (Moore & Kearsley, 2005). Interaction also has been identified as an important contributor to learner satisfaction. Student-instructor interaction is part of the learning experience (Lau, 2000). Engagement with students, peers, and instructors in an online environment is a key contributor to student satisfaction. Yukselturk and Yildirim (2008) concluded that the major factors affecting satisfaction are interaction with instructors and peers, course structure, institutional support, and flexibility. When instructors are more readily available to students, students are more likely to be engaged in the course and its content. At the conclusion of the course, students attributed their final course scores to the level of satisfaction of the course (Lee, et al., 2011). Therefore, students exit the course with more a positive overall perception of the course (Lee, Srinivasan, Trail, Lewis, & Lopez, 2011).

According to various research findings, online students look for the following results from taking an online course: (a) getting the same knowledge gain as they would in an on-site course, (b) making sure the gain is equivalent, (c) outcomes or grades, (d) making sure students are satisfied with their efforts and their grades, (e) whether students have received what they wanted out of the class, (f) were the expectations met or exceeded, (g) having access to the professor. In an online learning environment, instructors are capable of identifying students who are failing as well as students who are participating and doing well. This ability can result in more satisfied and successful students.

Education at a distance provides students with the access to take courses at their convenience. Online learning focuses on student participation and instructor mediation.
The focus in online learning is often less on the content than it is on the cognitive process of “offering up ideas, having them criticized or expanded on, and getting the chance to re-shape them (or abandon them) in the light of peer discussion” (Rowntree, 2005, p. 207). Online learning can help the student to reflect and learn on their own time (Howard, Schneck & Discenza, 2004). Typically, online learning is assumed to be easier, more convenient, and cost effective.

Despite the benefits offered by online learning, prior research has indicated that 10% to 20% percent of students always prefer the face-to-face environment and believe they learn best in this environment (Hiltz & Turoff, 2005). Another perception about online teaching is that it diminishes the personal dimension that face-to-face communication allows. It is true that much of the richness of non-verbal communication (e.g., tone of voice, facial expressions, etc.) is often absent in online instruction. However, the interpersonal benefits of teacher-student relationships as well as student-student relationships are evident and potentially heightened through online teaching environments (Comeaux & McKenna-Byington, 2003).

Low (2000) found that successful colleges that meet their students’ expectations have three common attributes: emphasis on student needs, continual improvement in the quality of the educational experience and utilization of student satisfaction surveys to shape future directions of the institution. When institutions focus on students’ needs, they are providing support services to all students in the online environment, giving them the same success opportunities as students in a traditional on-site course. These support services include library access, faculty involvement, tutoring services, and technical support. Student support is needed to help students achieve learning goals and objectives.
successfully (Curley & Strage, 1996). Appropriate support strategies to meet students’ needs and learning styles are likely to enhance students’ learning and their learning experiences (Lee, et. al., 2011).

In the following three quantitative studies, the researchers discovered characteristics associated with satisfaction and perceptions in online courses at their respective institutions. In the first study, research was conducted at a large state university using a sample of 801 students. A survey was administered to these students asking them to rate their experiences with online courses, and 30% of the sampled students held negative perceptions of online courses (Bristow, Shepherd, Humphreys, & Zieball, 2011).

In a second study, 110 students completed an online survey designed to measure students’ perceptions of support and course satisfaction in an undergraduate online course at a large southeastern university. The results indicated that when students perceived that courses were supportive of their learning, students were more likely to be satisfied with the online courses. The results also indicated that students wanted to have more opportunities to interact with teachers, possibly through face-to face interaction online or in person to increase the interaction between teachers and students.

In another quantitative study focusing on an online certificate program, an online satisfaction questionnaire was used to gather data regarding satisfaction within the program from 137 students. Following the survey, semi-structured interviews were conducted with 20 participants. Although the study showed positive results, and positive satisfaction among the students, the satisfaction decreased during the course of the semesters of the program.
Satisfaction is seen as an important measure of program outcomes, which makes it necessary to analyze the quality of the program (Yukselturk & Yildirim, 2008). Approximately one-third of the students who have completed at least one online course expressed negative attitudes toward or negative perceptions of online education.

Over a 12-year span, a report produced by SRI international for the Department of Education analyzed 99 studies in which there were quantitative comparisons of online and classroom performance for the same courses. The analysis for the Department of Education estimated that, on average, students completing some or all of their courses online would rank in the 59th percentile in tested performance, compared with the average classroom student scoring in the 50th percentile. That is a modest but statistically meaningful difference (Lohr, 2009).

In a similar effort, the Educause Center for applied research conducted a longitudinal study that examined student uses, perceptions, and preferences within online learning. The research was conducted using an Internet-based survey, a focus group series, qualitative analysis of student comments, and longitudinal comparisons. According to the findings, students reported being actively online an average of 18 hours a week. This includes time spent sending and reading emails, instant messaging, social networking, writing papers, and participating in online discussions.

Ninety percent of the students said they had high speed Internet for the course, and the majority reported that they like to see technology used in their courses to a moderate degree. Students’ overall experiences with an online learning management system were largely positive. Students were also asked to indicate which services online were the most useful, and the number one service was, keeping track of grades and
assignments online, the lowest rated service was the online discussions (Caruso & Salaway, 2007).

Academic leaders at more than 40% of schools with online offerings agreed or strongly agreed with the statement that students are at least as satisfied with online courses as they are with face-to-face offerings. Only 3% of all schools with online offerings disagreed with the statement (Allen & Seaman, 2004). All learners are different, and it is imperative that students are satisfied and prepared to learn in an online environment.

Satisfaction is an essential contributor to Tinto’s (1993) retention theory because students who are satisfied with the formal and informal academic and social systems in a college or university tend to stay in school. On the contrary, students who have negative interactions and experiences tend to become disillusioned with college, withdraw from their peers and faculty members, and ultimately withdraw from the institution (Kau, 2003). Studies of learners’ satisfaction are typically limited to one-dimensional post-training perceptions of learners (Johnson, Aragon, Shaik, & Palma-Rivas, 2000). Acceptance and satisfaction, however, are multidimensional and encompass variables including (but not limited to) perceptions, beliefs, attitudes, learners’ characteristics, and level of involvement and preparation with the online course material (Chang & Cheung, 2001).

Linked to the idea of student satisfaction is the important issue of persistence and retention. Student persistence and retention are important issues facing higher education today. Each student who drops out costs a school thousands of dollars in lost investment and future revenue. Hiltz and Turoff (2005) have predicted that the surviving institutions
will be those that strongly emphasize high-quality education using the best technology available. The advancements in technology that enable this level of quality will occur very quickly, and organizations must be careful not to become dependent on their current technology. For online education to be successful, faculty and students must be willing to embrace or accept online learning (Bristow et al., 2011). Finding out what needs to be embraced specifically will be easier to identify through Astin’s I-E-O model, and by the research instrument. Embracing online education satisfaction and perceptions of online education will take precedent in assessment policies, thus making online courses a strong delivery system of education.

Assessment of student satisfaction ensures that the learning outcomes have been achieved and that students have received educational content in a manner that was promised to them by the issuing institution (Bristow et al., 2011). Regardless of the method that institutions use to assess their classrooms, and whether they assess on-site or online classrooms, the assessment process will help guide decisions about the quality of the program or courses offered. Demands for effectiveness and cost reduction will result in a replacement of face-to-face time as a protector of quality, outcome assessment, and interactive instruction. As technology continues to advance, learner-centered distance learning will become the dominant mode of instruction (Olson, 2001).

**Retention and Attrition in Online Learning Environments**

According to American College Testing (ACT), one in every four students leaves college before completing his or her sophomore year. According to Tinto (1993), in the general student population, research has suggested that 56% of students in four-year institutions drop out of college. In addition, nearly half of all freshmen will either drop
out before getting their degrees or transfer to other institutions later in life to complete their degree programs (Whitbourne, 2002). Students who feel that they cannot adjust to their new academic environment academically or socially are at risk of receiving poor grades, feel maladjusted, and at worst may discontinue their studies (Hatakka, n.d.).

Students are no longer graduating within the traditional four-year period but are on a much longer path to obtaining a degree. By 2015, an additional 2.3 million students will be enrolled in college (NCPPHE, 2000).

However, the trend needs to continue to elevate students’ intent to remain enrolled in the institution instead of using the ability to transfer or drop out before completing their intended degree. Even though enrollments have been increasing, retention and graduation rates have remained relatively low (Marrow & Ackermann, 2012). Bean and Metzner (1985) proposed a model grounded in Tinto’s model to explain attrition (see Figure 4).
As with Tinto’s model, Bean and Metzner’s (1985) model attempts to predict student persistence based on student-institution fit. Although Tinto’s model and Bean and Metzner’s models were designed with traditional course delivery in mind, they are relevant for online programs, and they should be adapted to the needs of online learners in order to better explain persistence and attrition in distance education programs (Rovai, 2003).

According to Tinto (1993), many students are ill-equipped for the challenges of college. Tinto has reported that students devote so much time to the admissions process, they forget to focus on what lies ahead: challenging academics, living away from home, maintaining their finances, learning time management skills, and taking responsibility for their own lives. Because students’ focus is divided among a variety of priorities, students often do not spend enough time preparing for their academic challenges.
According to several higher education studies, academic unpreparedness is one of the top five reasons students drop out of college, along with no support system, poor student-college fit, personal or family troubles, and financial difficulties (Tinto, 1993). Throughout many studies, these were the most listed in the top five. There are four categories of factors that predict attrition in distance education: student situation, student disposition, institutional system, and course content. Students generally reported that the demands of life prohibited successful completion of a course and that learning style hindered success. They also reported a lack of quality in educational delivery and difficulty of the subject matter. In fact, many educators have implied that the high dropout rates and the resulting lower success rates should disqualify online education as a high-quality alternative to traditional education (Perspective, 2001). Another finding was the low number of students who withdrew because of inaccurate expectations of the online course (Lorenzetti, 2005).

Maturity also has been reported as a contributing factor in drop-out rates. The average age of online students is three years older than the average age of traditional on-campus students (Lorenzetti, 2005). The older the student, the more likely that he or she will be successful and complete not only the individual course but also the entire academic program. According to researchers, another reason students do not complete courses is the seemingly unrealistic expectations of the online course. Students enter courses with very different expectations and perceptions. According to a study conducted at Edmonds Community College, between 66% and 75% of the students who withdrew from an online course reported that they were likely to try again. According to Tinto’s theory, trying again at a later date is still considered retention.
Students perceived the greatest disadvantages in online learning to be their greater comfort with more traditional mediums and their inexperience in using computers (Palmer & Holt, 2009). In one study, students were enrolled in one of two courses at a medium-sized midwestern university in the United States. Students found it difficult to motivate themselves or difficult to prioritize their activities. On average, students required nearly eight hours to finish the two learning units in their entirety, and this appears to be a greater investment of time than most students were willing to make. Prior experience with technology and previous online learning courses also had an impact on perception of online learning (Smart & Cappel, 2006). Deficiencies in academic preparation and student skills can be remedied through early intervention efforts (Rovai, 2003). Allowing a student to take online courses without the proper preparedness creates an unfamiliar environment that may persuade students to become discouraged or dissatisfied.

Students who assume the responsibility associated with online courses do not necessarily automatically succeed or achieve satisfaction with the online delivery mode; there are plenty of reasons why students do not succeed in an online course, resulting in high dropout rates and high attrition rates. Institutions need to recognize potential attrition rates and resolve these issues to maintain high retention rates. Not all students will or can be retained in the online learning system; however, knowing why students drop will help guide institutions into better preparedness for students in the future.

Summary

Online degrees and programs already have become a part of the educational culture. The students of today are aware of online offerings, and students in the near
future will be even more aware of and interested in online offerings as part of their educational experience, and many students may elect to complete their degree programs entirely online (Bristow, Shepherd, Humphreys, & Ziebell, 2011). According to researchers, students enroll in online classes because of convenience and the relevance of their chosen academic program to their careers and jobs. What keeps students enrolled are various qualities of the faculty, the quality of the coursework, and personal factors.

While it is the online nature of the program that lures students to enroll (and allows them to stay enrolled), it is the nature of their relationships with faculty, the quality of the educational experience, and their own personal and individual reasons and motivations that keep them enrolled (Meyer, Bruwelheide, & Poulin, 2009). The majority of research investigating the online learning environment focuses on students who have taken several online courses and subsequently provided their opinions after they completed the academic program or course(s).

As in the traditional face-to-face environment, unique circumstances surround every learner, every instructor, every course, every department, every program, and every institution that participates in online education. As a result, an effective path for building a successful online learning course requires focusing on individual students so that their educational needs, skills, access requirements, and personal circumstances are identified. Based on this thorough identification and assessment process, the appropriate levels of advisement, content, and interaction must be applied to students’ course of study throughout their online education experience (Lorenzo, 2007).

Gaining this knowledge will help institutions develop proper preparedness programs for online learning environments and incorporate continual assessment and
development. The experiences that students encounter in the online learning environment will determine whether they intend to enroll in another online or hybrid course in the future. Increased intentions to re-enroll and to remain in their current academic programs and courses will increase retention, decrease attrition and expose students to positive and successful outcomes in their online learning experiences.
Chapter Three

Methods

Unfortunately, the online learning experience has not been a positive one for a substantial portion of participating students (Herbert, 2006). The purpose of this study was to understand the types of preparation students need to be effective and successful in online learning. Research has suggested that the degree to which students are prepared to successfully complete online courses may be related to course satisfaction and learning satisfaction levels. This study examined the potential link between (a) preparation for and satisfaction with online learning and (b) the intent to enroll in another online course. Based on whether preparation for online learning was low among students within the sample, this study determined whether satisfaction levels may be attributed to poor preparation for online learning. Ultimately, this study provides guidance for institutions in support of offering orientation to online learners. More specifically, this study identifies policies and practices that may be related to self-reported levels of satisfaction and preparation. Studies have been conducted regarding online-learner satisfaction and expectations as a whole, but more specific research has been needed to determine whether students are satisfied with their online experience, especially with their preparation for taking an online course.

Research Questions

Following are the research questions that guided this study:

RQ1: What is the relationship, if any, between students’ perceived levels of preparedness and their actual preparedness after completing an online course?
RQ 2: What relationship, if any, exists between (a) student characteristics and (b) online satisfaction and preparation levels?

RQ 3: What relationship, if any, exists between (a) environmental variables and online satisfaction levels and (b) environmental variables and preparation levels?

Research Design

This study used Alexander Astin’s I-E-O model as a way to identify factors that influence the degree to which students are satisfied with and prepared for their online learning experiences. Preparation and students characteristics were considered “inputs”; online activities and time spent completing online activities were considered the “environment”; and satisfaction and intent to re-enroll were considered “outputs.” The primary goal of this study was to determine whether preparation factors are correlated with the degree to which students experience satisfaction in their online courses.

A correlation analysis guided the data analysis. Fraenkel and Wallen (2000) stated that correlational research designs are used for two major purposes: to help explain important human behaviors (i.e., to explore relationships between variables) and to predict likely outcomes (i.e., the score on one variable if the score on the other variable is known). The study included an online survey consisting of open- and closed-ended items during the mid-semester of spring 2013. Collecting responses both to open- and closed-ended items helped validate the findings of the study by providing opportunities both for explanatory analysis and descriptive analysis.

Survey designs have been one of the most popular forms of educational research. Because questionnaires are low in cost and easier to implement than telephone or face-to-face interviews, questionnaires are popular tools in research (Cui, 2003). Another factor
is that respondents can complete questionnaires at their own leisure, eliminating pressure or intimidation and potentially allowing for more honest responses. Because the data for this study was based on participants’ experiences, the study is able to assist in the development of theory-to-practice principles and provide a framework for future research. The results of this study have the potential to (a) help develop continual improvement opportunities for online learning environments and courses, (b) identify which institutions provide students with training, and (c) determine which institutions have students who are more satisfied with online learning. Ultimately, this study will help future online learners to be prepared and satisfied with their courses and with online learning.

**Instrumentation**

**Piloting the Initial Instrument**

The questionnaire was developed using the I-E-O model as a framework. Characteristics were divided into inputs, environment, and outputs. Once the questionnaire was developed, a convenience sample of 200 to 300 online students was asked to take the survey in a face-to-face environment to determine the clarity, usefulness, and validity of the survey items. The inclusion criterion for this survey-testing procedure was that the students were required to already have completed at least one online course in higher education. The students were asked to write down comments about the questionnaire items and include any suggestions that they believed would help improve the instrument. The students participated in an explanatory session, during which time they indicated which questionnaire items would be useful and which questionnaire items required rewording for clarity.
The cognitive interview is a method that allows for in-depth analysis of a questionnaire to establish its validity and explore respondents’ thought processes. Cognitive interviews can take place either in person, or feedback can be provided through written memos. Cognitive interviews serve an exploratory function by revealing reasons for participants’ responses. The additional information provided through cognitive interviews can help identify which items on the survey may need to be omitted as well as which items may encourage misleading views or ambiguous responses (Desimone & LeFoch, 2004). In all cases, the comments from the students were used to revise the questionnaire items, if needed. Cognitive interviewees for this study included an educational technology expert and two experts in higher education, along with an expert in survey research methods. These interviews took place before the pilot study of the instrument. Various models have represented the background theory underlying cognitive interviewing. An important aspect of validity is that the respondents have a similar or exact understanding of the questionnaire items as does the designer of the questionnaire (Desimone & Le Floch, 2004). Careful piloting can help address any issues that may cause insignificant data to be collected and eliminate misleading items that could potentially skew the data.

The most general cognitive interview model has been suggested by Tourangeau (1984), and it consists of two primary components: (a) question intent--What does the respondent believe the question to be asking? and (b) meaning of terms--What do specific words and phrases in the question mean to the respondent? Conducting cognitive interviews helped clarify the survey items prior to the pilot study.
The Final Instrument

The final instrument for this study consisted of an Internet-based questionnaire developed using Qualtrics. Qualtrics is a research and analytics software application for educational institutions and business organizations. Qualtrics was used to create both open-ended and closed-ended questions. The online questionnaire was specifically directed toward online students in higher education enrolled in an online course during the spring of 2013. Qualtrics was the Internet-based survey engine used for gathering and examining the survey data.

A survey design was selected to maximize the opportunity to reach a large number of students within a two-week time frame. The questionnaire items were divided into the following areas: preparation, satisfaction, environment, and demographic characteristics. This research study was specifically designed to gather information about the online learning experience. The 22-item survey required participants approximately 10 to 15 minutes to complete.

According to the research, successful online learners are seen as voluntarily seeking further education, have higher expectations, are more disciplined, are older, enjoy learning for its own sake, demonstrate good thinking skills, are able to work independently with limited structure, and recognize the value of interacting with other online peers (Palloff & Pratt, 2001). Based on this research, Part I of the survey includes items relating to preparation and pedagogical practices, and participants were asked to respond using a four-point Likert scale: SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree, and NA = Not Applicable.
Part II of the questionnaire includes items focusing on the online environment.

*Now that I have completed the majority of my online course, I feel that I would have benefited from more prior preparation with the following tasks in my online class.*

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Managing my time for the online class.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>b. Uploading assignments.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>c. Using the software necessary to complete this course.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>d. Turning in all of my assignments on time.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>e. Expressing my thoughts and knowledge in the threaded discussions.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>f. Taking an exam or quiz online.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>g. Contacting my instructor if I need assistance.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>h. Working in groups through virtual means.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
</tbody>
</table>

The purpose of Part I of the survey was to identify whether students felt prepared to take an online course in contrast to realistically being prepared to take the course. These items have been categorized as “inputs” according to Astin’s I-E-O model.

According to Olson (2001), online learners should develop time-management skills, log on often to the course, make sure they meet all deadlines for assignments and activities, and communicate with their peers and instructors at their own pace. According to Rovai (2003), successful online learning requires special student skills: (a) computing, (b) literacy discussion, (c) time management, and (d) interpersonal interaction (Rovai, 2003).

The following survey items were based on the research from Olson (2001) and Rovai (2003) to identify successful online students and their involvement in online courses. Having prior experience with technology and previous online learning courses also influences students’ perceptions of online learning (Smart & Cappel, 2006). The following items were included to explore students’ preparedness for the amount of time required to complete an online course. In Part II of the survey, students were asked to
indicate their responses on a four-point Likert scale: SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree, and NA = Not Applicable.

Prior to taking an online course, were you prepared for...

<table>
<thead>
<tr>
<th>Question</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The time it took to manage my time for class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The time it took to uploaded assignments to a course learning management system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The time it took to use the software necessary to complete this course.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. The time it took to turned in my assignments on time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. The time it took to express my thoughts and knowledge in the threaded discussions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. The time it took to take an exam or quiz online.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. The time it took to hear back from your instructor if needed assistance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. The time it took to work in groups through virtual means.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A longitudinal study performed by the Educause Center for applied research examined student uses of, perceptions of, and preferences within an online learning environment. This study was conducted through an Internet-based survey, focus group series, qualitative analysis of student comments and longitudinal comparisons.

According to the findings, students reported being actively online for an average of 18 hours per week. This includes emailing, instant messaging, social networking, writing papers, and participating in online discussions. Based on this research, the following questions were included in this survey. These questions represent environmental factors in an online learning environment.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. how many hours did you expect to spend online weekly?</td>
<td>___ hrs/week</td>
</tr>
<tr>
<td>b. how many hours per week did you expect to spend preparing and completing assignments?</td>
<td>___ hrs/week</td>
</tr>
<tr>
<td>c. did you feel you had the necessarily technology skills to take an online course?</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>
Cole (2000) identified the added importance that online distance education has placed on reading and writing skills and the need for online students to possess these additional skills. Because online students mainly work independently, they need to be able to recognize when information is needed and have the ability to locate and evaluate information effectively (American Library Association Presidential Committee on Information Literacy, 1989). Arbaugh (2000) identified four factors influencing online learning: (a) perceived usefulness and ease of course, (b) flexibility for students, (c) emphasis on interaction, and (d) engagement. He also found significant learning variables were associated with classroom interaction. Student and instructor interaction is part of the learning experience (Lau, 2000). The online classroom environment is addressed in the following survey items. In this part of the survey, participants were asked to indicate their responses using a four-point Likert scale: SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree, and NA = Not Applicable. 

Among the following characteristics of online courses, indicate your satisfaction level with the following Output characteristics.

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Satisfied with level of Peer interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Satisfied with Teacher to Student interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Satisfied with response time with graded material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Satisfied with institution support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Satisfied with knowledge gained from course</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Satisfied with delivery of content material</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Satisfied with convenience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Satisfied with connection to institution or peers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The purpose of Part II of the survey was to determine students’ preferences as well as factors that influence their satisfaction levels within an online learning...
environment. According to Pena and Yeung (2010), for students who are less competent using computers and technology and do not feel comfortable or interested in using them, the level of satisfaction with the online environment is likely to be lower.

Maturity is also a contributing factor in online success rates. The average age of online students is three years older than the average age of traditional on-campus students (Lorenzetti, 2005). The older the student, the more likely he or she will be successful and complete not only online courses but also the entire academic program. Based on this research, the third section of the survey included five open-ended demographic items and 10 closed-ended items to help identify the background of students enrolled in an online course. Following are two specific items on the survey: Do you own a computer? Do you have access to the Internet at home? Participants also were asked to indicate their age, gender, class level (i.e., freshman, sophomore, junior, senior), and hometown (rural or urban). The purpose of Part III of the survey was to identify and compare students’ backgrounds with their levels of online learning preparedness and satisfaction.

**Sample**

The target population for this study was comprised of online students enrolled in their first-online college course at three four-year private institutions within a metropolitan area. Convenience sampling was the method used to identify the sample, and the sample included all students at these three institutions who were enrolled in an online course during the spring 2013 semester at the following institutions: Tiffin University in Tiffin, Ohio; Lourdes College in Sylvania, Ohio; and The University of Findlay, in Findlay, Ohio. Private institutions were chosen because, according to Moloney and Oakley (2010), more than one-half of all online enrollments were from
community colleges, and the lowest enrollments were from small, four-year colleges. 
The researcher chose this sample because the researcher is employed at a small private 
institution and wanted to explore reasons why students at four-year private institutions 
have not been enrolling in online courses. Only students within a four-year degree 
program were asked to participate in the study.

A traditional higher education academic semester is designed to span 15 weeks; 
this research design helps dictate drop dates and focus group dates from each 
participating institution. To attract student participants, gift cards were offered as 
incentives to all students participating in the study. Students participating in the study 
were entered into a drawing to receive gift cards for their participation. Approximately 
250 students from each institution completed the web-based surveys one week before the 
course drop date.

Data Collection

Online Questionnaire

Once the survey was tested and revised, it was activated and administered through 
Qualtrics. Qualtrics is an easy-to-use tool for creating online surveys. The primary 
strength is its intuitive interface, which makes it easy for researchers to create 
questionnaires and export collected data (Westin, 2005). An invitation to complete the 
questionnaire was sent one week before the course drop date (as designated by each 
institution). This strategy helped identify students who potentially may have dropped the 
course and concurrently gather data from students who intended to complete the course. 
Students were informed that all data would remain confidential and that their identities 
would remain anonymous. To encourage participation in the study, participants’ names
were entered into a drawing for local gift cards. Students were instructed to contact the researcher if they experienced any difficulties completing the questionnaire or wanted to ask any additional questions about the results of the study.

Students may have been motivated to respond because they invested their time into the course and knew that their opinions would provide their respective institutions with data that would help improve online instruction. To help increase response rates, the researcher provided a follow-up e-mail to all students encouraging their participation and promoting the possibility of receiving a gift card.

**Data Analysis**

First, descriptive statistics were calculated, including percentages, means, and modes. The researcher then analyzed quantitative data corresponding with each research question. The specific inputs in this include were preparedness and preparation characteristics. The outputs include the degree to which students were satisfied with their online learning experience. The results determined whether a relationship existed between preparedness factors and the satisfaction levels of online learners.

The researcher conducted correlational analyses, and the results may be used to help determine whether to make changes in online courses that might increase students’ level of preparation before enrolling in online courses and their satisfaction levels after completing online courses. The analysis also determined which variables were related to preparation and satisfaction.
Variables

Independent Variables

Online instruction users (time). This study was designed to include the thoughts, and opinions of online instruction. The student had 15 weeks to complete the course they chose to take online. During this time, they were asked to complete a questionnaire at the midpoint of the semester.

Dependent Variables

Preparedness. One dependent variable was students’ feelings about their level of preparedness prior to enrolling in an online course and after completing the same course.

Satisfaction. A second dependent variable was students’ thoughts about the outcomes prior to enrolling in an online course and after completing the same course.

Limitations

An internal limitation of this research was the lack of incentive for the students to complete the questionnaire. Although confidential, students may not have felt comfortable providing information about their feelings regarding the course out of fear that their opinions and suggestions may have negatively influenced their grades. Lack of participation and a low response rate likely provided skewed data.

Attrition rates and students who withdrew from the online course were not calculated in this study. This lack of data was another limitation of the study. The students who drop out of the class would have been the ideal participants from whom to gain further knowledge about areas that may need improvement within the online learning community. An exit interview or questionnaire would have been an excellent vehicle through which to gather this data prior to the student dropping the course.
External validity within the study includes population validity. The sample allowed generalization of the results to online students enrolled at the three participating institutions. Students from three different private institutions were administered the same questionnaire and were all enrolled in an online course.

**Sampling Error**

Surveys allow information to be collected from a sample group, and because certain members of the population are deliberately excluded as a result of the sampling procedure, their responses will not be collected or analyzed. The population from which the sample will be selected includes all students enrolled in an online course during the spring 2013 semester at three higher education institutions.

**Non-response Error**

Low response rate may have been a problematic issue. If students were not interested in the incentives, or if the students were not happy with the course, they might have been less willing to complete the questionnaire. However, the opportunity to make an important contribution within their course or program by participating in this study may have been an incentive they found useful.

**Summary**

To conduct this research, Astin’s I-E-O model was used as a conceptual framework. Students enrolled in online courses during the spring semester of 2013 at three private, four-year, higher education institutions were invited to participate in an Internet-based questionnaire powered by Qualtrics. The survey was designed to explore students’ online preparedness and satisfaction with their online courses. More than 500 students were contacted and invited to participate in this study, and the research took
place during one academic semester. The researcher conducted correlation analyses to
determine whether statistically significant relationships existed between student
preparedness factors and the degree to which students were satisfied with their online
learning experience.
Chapter Four

Results

This chapter presents the results both of quantitative and qualitative data analyses related to preparation and online learning satisfaction among undergraduate college students. The first section presents research questions, summary of participants, data collection techniques, and data analysis techniques.

The second section presents results of demographic and frequency statistics, and the analysis of the research questions. The third section presents the results from the ANOVA analysis and correlational analysis. Finishing the chapter is the data from the qualitative results.

The purpose of this study was to determine whether students’ level of preparedness (a) helps them succeed in online courses and (b) creates learner satisfaction. A secondary purpose of this study was to help researchers, administrators, and educators understand the extent to which online learners are prepared to enter online learning environments by exploring student preparedness and satisfaction levels.

Research Questions

This study was guided by the following three research questions:

RQ1: What is the relationship, if any, between students’ perceived levels of preparedness and their actual preparedness after completing an online course?

RQ 2: What relationship, if any, exists between (a) student characteristics and (b) online satisfaction and preparation levels?

RQ 3: What relationship, if any, exists between (a) environmental variables and online satisfaction levels and (b) environmental variables and preparation levels?
Research Question 1 and Research Question 2 were answered by analyzing quantitative data, and Research Question 3 was answered by analyzing qualitative data. (See Appendix B to view a table that aligns the research questions with Alexander Astin’s I-E-O Model.)

Summary of Participants, Data Collection Techniques, and Data Analysis Techniques

Participants

Undergraduate students enrolled in an online course during the 2013 spring semester at two private, four-year institutions were included in the sample. Only students within a four-year degree program were invited to participate in the study. The participants were required to be currently enrolled in an online course or recently to have completed an online course during the spring 2013 semester.

The majority of the respondents reported a high school GPA of 3.6 or higher on a 4.0 scale, and 14% of the respondents had already taken an online course in high school. Almost 90% (88%) of the participants indicated that the course they took online in college was mandatory for graduation, and 67% reported they were seniors in standing. Traditional-aged college student (age 18-23) comprised 43% of the sample; however, 82% of the respondents reported that they lived off campus. Only 43% of participants reported that they had taken an online tutorial, and 85% reported that this tutorial was helpful. Almost all (99%) of the participants reported that they had a computer at home, and 98% reported that they had Internet access at home.

Data Collection Techniques

The study was conducted during the 2012-2013 academic year. An online questionnaire was developed by the researcher and hosted by Qualtrics, an online survey generator. An
invitation to complete the questionnaire was emailed to students one week before the course withdrawal date (as designated by each institution). Students voluntarily and anonymously completed the online questionnaire. Since there was not a pre and post survey given, the students were asked to abstract the feelings of pre and post behavior at the same moment. During the data collection period, 310 students were invited to complete the questionnaire, 113 students completed the questionnaire, and 106 students provided questionnaire responses that contained useable data. The response rate was 36%. Students were informed that all data would remain confidential and that their identities would remain anonymous.

**Data Analysis Techniques**

Both quantitative and qualitative data analysis techniques were used in this study. Quantitative data analysis techniques included the calculation of frequency distribution statistics as well as correlation coefficients, and one analysis of variance (ANOVA) was conducted. To conduct these analyses, the researcher used a quantitative analysis software application (IBM SPSS Statistics). Specifically, the researcher conducted 16 correlation analyses using the Pearson product-moment correlation analysis formula. Some analyses were conducted using a combined “preparation” score and a combined “satisfaction” score. These combined scores were derived by adding the scores of individual questionnaire items (7 items for the “preparation” scale, and 8 items for the “satisfaction” scale). Other correlation analyses compared individual items within these scales (e.g., preparedness to “use the software necessary to complete this course” vs. “satisfied with convenience”). The primary purpose of these correlation analyses was to determine whether statistically significant (\( \alpha = .05 \)) relationships existed between the responses to questionnaire items measuring (a) student preparation for online learning and (b) student satisfaction with their online learning experience.
In addition to quantitative data analysis techniques, qualitative data analysis techniques were also used in this study. Qualitative data analysis techniques were used to identify and code qualitative responses (see Appendix A) derived from two qualitative items on the questionnaire. First-cycle coding methods (i.e., descriptive coding and in vivo coding) (Saldana, 2010) were applied to 72 comments provided by students in response to Item 16 of the questionnaire and to 75 comments provided in response to Item 17 of the questionnaire. Second-cycle coding methods (i.e., pattern coding) (Saldana, 2010) were applied to the descriptive and in vivo codes, and assertions were derived from these pattern codes.

Results

Demographic Frequency Statistics

The sample included participants from a wide range of ages (18 years to 58 years). The mean age ($M=28.72$, $SD=9.83$) of participants was slightly higher than the age of the “traditional college student” (i.e., 18-25). The sample also included participants from rural, suburban, and urban areas. The majority of the students participating in this research were from primarily rural (48%) and suburban (43%) areas. Only 15 participants in this study indicated they lived in an urban area. The majority of the students ($n=82$, 78%) who participated in this study indicated that they lived off campus. The remaining students ($n=23$, 22%) who participated in this study indicated that they lived on campus or lived in campus housing. The participants included undergraduate students ranging from freshmen to seniors. The majority of students were seniors ($n=63$, 67%), and approximately one fourth were juniors ($n=21$, 22%). A small number were sophomores ($n=8$, 8%), and even fewer were freshmen ($n=2$, 2%).
Table 2

Participant Demographic Information

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Range</td>
<td>18-58</td>
</tr>
<tr>
<td>Mean Age</td>
<td>28</td>
</tr>
<tr>
<td>Background</td>
<td>Rural: 48%</td>
</tr>
<tr>
<td></td>
<td>Suburban: 43%</td>
</tr>
<tr>
<td></td>
<td>Urban: 9%</td>
</tr>
<tr>
<td>Campus Living</td>
<td>Off Campus: 78%</td>
</tr>
<tr>
<td></td>
<td>On Campus: 22%</td>
</tr>
<tr>
<td>Class Standing</td>
<td>Senior: 59%</td>
</tr>
<tr>
<td></td>
<td>Junior: 20%</td>
</tr>
<tr>
<td></td>
<td>Sophomore: 7.5%</td>
</tr>
<tr>
<td></td>
<td>Freshmen: 2.0%</td>
</tr>
</tbody>
</table>

Item Frequency Statistics

The following tables provide frequency statistics for each questionnaire item:

Table 3

How prepared did you feel to complete the following tasks online?

<table>
<thead>
<tr>
<th>Item</th>
<th>HP/P</th>
<th>N</th>
<th>SP</th>
<th>Σ</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload assignments</td>
<td>99</td>
<td>6</td>
<td>1</td>
<td>106</td>
<td>1.55</td>
</tr>
<tr>
<td>Turn in my assignments on time</td>
<td>95</td>
<td>4</td>
<td>6</td>
<td>105</td>
<td>1.62</td>
</tr>
<tr>
<td>Express my thoughts in the threaded discussions</td>
<td>95</td>
<td>10</td>
<td>1</td>
<td>106</td>
<td>1.72</td>
</tr>
<tr>
<td>Contact my instructor if I need assistance</td>
<td>94</td>
<td>9</td>
<td>2</td>
<td>105</td>
<td>1.57</td>
</tr>
<tr>
<td>Manage my time online</td>
<td>91</td>
<td>8</td>
<td>6</td>
<td>105</td>
<td>1.85</td>
</tr>
<tr>
<td>Take an exam or quiz online</td>
<td>90</td>
<td>13</td>
<td>3</td>
<td>106</td>
<td>1.72</td>
</tr>
<tr>
<td>Work in groups through virtual means</td>
<td>62</td>
<td>29</td>
<td>9</td>
<td>100</td>
<td>2.24</td>
</tr>
</tbody>
</table>

Note. HP = Highly prepared, P = Prepared, N = Neutral, SP = Somewhat prepared.

Table 4

What was your high school GPA (self-reported)?

<table>
<thead>
<tr>
<th>GPA Ranges</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0-3.6</td>
<td>40</td>
<td>40%</td>
</tr>
<tr>
<td>3.5-3.1</td>
<td>28</td>
<td>28%</td>
</tr>
<tr>
<td>3.0-2.6</td>
<td>23</td>
<td>23%</td>
</tr>
<tr>
<td>2.5-2.1</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>2.0-1.5</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>
### Table 5

**Did you take an online course in high school?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td>No</td>
<td>92</td>
<td>87%</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 6

**Is this your first online course in college?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>23%</td>
</tr>
<tr>
<td>No</td>
<td>82</td>
<td>77%</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 7

**Is this an elective or required course?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>18</td>
<td>17%</td>
</tr>
<tr>
<td>Required</td>
<td>88</td>
<td>83%</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 8

**Do you own a computer?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>105</td>
<td>99%</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 9

**Do you have Internet at home?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>102</td>
<td>98%</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 10

<table>
<thead>
<tr>
<th>Did you complete an online tutorial before taking this class?</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>46</td>
<td>43%</td>
</tr>
<tr>
<td>No</td>
<td>60</td>
<td>57%</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 11

<table>
<thead>
<tr>
<th>Was the tutorial helpful?</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39</td>
<td>85%</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 12

<table>
<thead>
<tr>
<th>Would you have taken a tutorial if it was offered?</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21</td>
<td>33%</td>
</tr>
<tr>
<td>No</td>
<td>42</td>
<td>67%</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 13

<table>
<thead>
<tr>
<th>How many hours did you expect to spend online weekly?</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 Hours</td>
<td>28</td>
<td>28%</td>
</tr>
<tr>
<td>5-8 Hours</td>
<td>35</td>
<td>35%</td>
</tr>
<tr>
<td>10-14 Hours</td>
<td>18</td>
<td>18%</td>
</tr>
<tr>
<td>15-20 Hours</td>
<td>11</td>
<td>11%</td>
</tr>
<tr>
<td>21 Hours or more</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Unsure</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 14

<table>
<thead>
<tr>
<th>How many hours per week did you expect to spend preparing and completing assignments?</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 Hours</td>
<td>27</td>
<td>27%</td>
</tr>
<tr>
<td>5-8 Hours</td>
<td>41</td>
<td>41%</td>
</tr>
<tr>
<td>10-14 Hours</td>
<td>17</td>
<td>17%</td>
</tr>
</tbody>
</table>
15-20 Hours 11 11%
21 Hours or more 2 2%
Unsure 2 2%
Total 100 100%

Table 15

Did you feel you had the necessary technology skills to take an online course?

<table>
<thead>
<tr>
<th>Answer</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>103</td>
<td>99%</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 16

Indicate your agreement with the following items.

<table>
<thead>
<tr>
<th>Item</th>
<th>F/O</th>
<th>N</th>
<th>Σ</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure of online course was easy to navigate</td>
<td>103</td>
<td>2</td>
<td>105</td>
<td>1.2</td>
</tr>
<tr>
<td>Took a mandatory tutorial online</td>
<td>69</td>
<td>36</td>
<td>105</td>
<td>2.14</td>
</tr>
<tr>
<td>Experience in LMS or online software</td>
<td>66</td>
<td>38</td>
<td>104</td>
<td>2.11</td>
</tr>
<tr>
<td>Took diagnostic test on computer proficiency</td>
<td>41</td>
<td>64</td>
<td>105</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Note. F = Frequently, O = Occasionally, N = Not Frequently.

Table 17

Indicate your satisfaction level with the following items.

<table>
<thead>
<tr>
<th>Item</th>
<th>VS/S</th>
<th>N</th>
<th>SS</th>
<th>NS</th>
<th>Σ</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>97</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>105</td>
<td>1.56</td>
</tr>
<tr>
<td>Delivery of content material</td>
<td>84</td>
<td>12</td>
<td>5</td>
<td>4</td>
<td>105</td>
<td>1.94</td>
</tr>
<tr>
<td>Response time with graded material</td>
<td>80</td>
<td>11</td>
<td>11</td>
<td>3</td>
<td>105</td>
<td>2.05</td>
</tr>
<tr>
<td>Knowledge gained from this course</td>
<td>80</td>
<td>13</td>
<td>7</td>
<td>5</td>
<td>105</td>
<td>2.09</td>
</tr>
<tr>
<td>Level of peer interaction</td>
<td>80</td>
<td>12</td>
<td>7</td>
<td>5</td>
<td>104</td>
<td>2.14</td>
</tr>
<tr>
<td>Institution support</td>
<td>74</td>
<td>23</td>
<td>6</td>
<td>2</td>
<td>105</td>
<td>2.13</td>
</tr>
</tbody>
</table>

Note. VS = Very Satisfied, S = Satisfied, N = Neutral, SS = Somewhat Satisfied, NS = Not Satisfied.

The frequency data provides information about participants’ satisfaction and preparation as well as their dissatisfaction and unpreparedness within their online courses. The majority of the participants indicated they were highly prepared to upload assignments, turn in assignments
on time, express their thoughts in a threaded discussion, contact the instructor, manage their time, and take online exams. However, the variable where participants reported that they felt the least prepared was working in groups through virtual means. Participants self-reported their high school GPA’s: 40% of the participants indicated a GPA of 3.6-4.0, and an additional 28% reported a GPA of 3.1-3.5. This indicates the majority of the students taking an online course are in the upper GPA quadrant. The remaining participants (32%) reported having a 3.0 or below in high school. Out of these participants 87% indicated that had not taken an online course in high school; however, 77% indicated that this was not their first online college course. Eighty-three percent of the participants reported that they had enrolled in an online course because it was a requirement for their major. However, when preparing to take an online course, 57% reported that they did not take a tutorial, and 67% reported that they would not have taken one even if it had been offered.

On a weekly basis, 35% of participants reported that they expected to spend only 5-8 hours online, and 41% indicated that they expected to spend another 5-8 hours preparing for the course (offline). A total of 4% were unsure how many hours they would spend preparing for the course and online each week. Virtually all of the participants (99%) indicated that they own a computer.

**Summary of Results**

**Correlation and ANOVA Analyses**

Correlation analyses revealed statistically significant (\( \alpha = .05 \)) relationships between the following questionnaire items and scales. The following correlation results are organized based on their statistical significance (i.e., statistically most significant first). Organizing the
correlations allows the researcher to focus on the most important results while including all the correlations that proved statistically significant.

Results for RQ1: What is the relationship, if any, between students’ perceived levels of preparedness before taking an online class and their actual preparedness after completing the online class? To answer RQ1, the researcher used IBM SPSS Statistics, a quantitative analysis software application. Specifically, twelve correlation analyses were conducted. The purpose of these analyses was to determine whether statistically significant relationships exist between students’ perceived levels of preparedness for online learning class and their actual preparedness for an online learning class. As students perceived level of preparation increased, they were more likely to be satisfied with learning online.

Correlation analysis 1. A correlation analysis revealed a statistically significant positive relationship \( (r=.32, p<.001) \) between the mean scores on the total preparedness scale \( (M=14.04, SD=4.27) \) and scores that reflect students’ satisfaction with the method of content delivery in an online course (e.g., synchronous/asynchronous, interactive modules, audio, video, etc.) \( (M=1.94, SD=1.01) \). The questionnaire did not indicate the exact delivery method used for each institution; however, the students who indicated they were prepared for an online course are more satisfied with the method of content delivery in an online course. One institution used Sakai as its learning management system for online learning, and the other institution used E-College as its learning management system for online learning.

Correlation analysis 2. A correlation analysis revealed a statistically significant positive relationship \( (r=.32, p<.001) \) between the mean scores on the total preparedness scale \( (M=14.04, SD=4.27) \) and scores that reflect students’ satisfaction with the convenience of taking an online
course \((M=1.56, SD=.759)\). This suggests that students who are more prepared for an online learning course are more satisfied with the convenience of taking an online course.

**Correlation analysis 3.** A correlation analysis revealed a statistically significant positive relationship \((r=.34, p<.001)\) between the mean scores on the preparedness scale \((M=14.04, SD=4.27)\) and the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). This suggests that as students perceive that they had good preparation, they were more likely to be satisfied.

**Correlation analysis 4.** A correlation analysis revealed a statistically significant positive relationship \((r=.34, p<.001)\) between the mean scores on the total preparedness scale \((M=14.04, SD=4.27)\) and scores that reflect students’ satisfaction with their connection to the institution and peers gained from an online course \((M=2.13, SD=1.093)\). This suggests that students who are more prepared for an online course are more satisfied with their connection with the institution and their peers.

**Correlation analysis 5.** A correlation analysis revealed a statistically significant positive relationship \((r=.34, p<.001)\) between the mean scores on the preparedness scale \((M=14.04, SD=4.27)\) and the mean scores on the perceived preparedness scale to take an online course \((M=13.98, SD=5.27)\). This suggests that students felt prepared to take an online course in college.

**Correlation analysis 6.** A correlation analysis revealed a statistically significant positive relationship \((r=.367, p<.001)\) between scores that reflect students’ perceived ability to (a) express their thoughts and communicate information in the threaded discussion of an online course \((M=1.72, SD=.673)\) and (b) the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). This suggests that when students are prepared and able to express their thoughts in an online course, satisfaction with online learning experiences increases.
**Correlation analysis 7.** A correlation analysis revealed a statistically significant positive relationship \((r=.39, p<.001)\) between scores that reflect students’ perceived ability to contact their instructor for assistance in an online course \((M=1.60, SD=.801)\) and the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). This suggests that when students are prepared to contact the instructor in an online course, satisfaction with online learning experiences increases.

**Correlation analysis 8.** A correlation analysis revealed a statistically significant positive relationship \((r=.25, p<.01)\) between the mean scores on the total preparedness scale \((M=14.04, SD=4.27)\) and scores that reflect students’ satisfaction with knowledge gained from an online course \((M=2.09, SD=1.06)\). This suggests that students who are prepared for an online course are more satisfied with the knowledge they gained from the course.

**Correlation analysis 9.** A correlation analysis revealed a statistically significant positive relationship \((r=.26, p<.01)\) between scores that reflect students’ perceived ability to turn in all their assignments on time in an online course \((M=1.65, SD=.873)\) and the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). The students were asked to abstract the feelings of pre and post behavior at the same moment based on whether they perceived they knew how to turn in assignments without instruction and how satisfied they were with their efforts to turn in their assignments throughout the course. This suggests that when students are prepared to turn in all their assignments in on time, satisfaction with online learning experiences increases.

**Correlation analysis 10.** A correlation analysis revealed a statistically significant positive relationship \((r=.30, p<.01)\) between the mean scores on the total preparedness scale \((M=14.04, SD=4.27)\) and scores that reflect whether students own a computer \((M=1.01, SD=.097)\). This suggests that students who are more prepared for an online course are more likely to own a computer.
Correlation analysis 11. A correlation analysis revealed a statistically significant positive relationship \((r=.21, p<.05)\) between scores that reflect students’ perceived ability to manage their time when taking an online course \((M=1.88, SD=.847)\) and the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). The students were asked to identify their ability to manage their time in an online course on a five-point Likert scale. These results were correlated with the entire satisfaction scale asking questions on a five-point Likert scale on how satisfied they were with the course. This suggests that when students feel prepared to properly manage the time required to successfully complete an online course, their satisfaction with online learning experiences increases.

Correlation analysis 12. A correlation analysis revealed a statistically significant positive relationship \((r=.23, p<.05)\) between scores that reflect students’ perceived ability to take an exam or quiz for an online course \((M=1.72, SD=.790)\) and the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). This suggests that when students are prepared to take an online exam or quiz within an online course, satisfaction with online learning experiences increases.

Results for RQ 2: What relationship, if any, exists between student characteristics and online satisfaction and preparation levels? To answer RQ 2, the researcher used IBM SPSS Statistics, a quantitative analysis software application. Four correlation analyses were conducted. The purpose of these analyses was to determine whether statistically significant relationships exist between students’ preparedness for an online learning class and their satisfaction with an online learning class. The results indicated that older students were more satisfied with online learning, and the higher their high school GPA, the more prepared they felt to take an online course in college. Results for RQ3 are provided below in the qualitative section.
Correlation analysis 13. A correlation analysis revealed a statistically significant negative relationship ($r=-.243$, $p<.05$) between the number of hours students expected to spend online weekly in an online course ($M=8.42$, $SD=8.061$) and students’ high school GPA ($M=3.37$, $SD=.541$). This suggests that students with higher high school GPAs feel more confident in their ability to learn in an online environment and, as a result, estimate that they will spend fewer hours online per week.

Correlation analysis 14. A correlation analysis revealed a statistically significant positive relationship ($r=.31$, $p<.001$) between the mean scores on the total preparedness scale ($M=14.04$, $SD=4.27$) and scores that reflect students’ satisfaction with the turnaround time for graded material in an online course ($M=2.05$, $SD=1.06$). This suggests that students who are prepared for an online course are more satisfied with the turnaround time for graded material in an online course.

Correlation analysis 15. A correlation analysis revealed a statistically significant positive relationship ($r=.20$, $p<.05$) between the age of students ($M=28.72$, $SD=9.83$) and the mean scores on the satisfaction scale ($M=16.11$, $SD=6.30$). This suggests that the older students are, the more satisfied they are with online learning and the younger the student, the less satisfied they are with online learning experience.

Correlation analysis 16. A correlation analysis revealed a statistically significant positive relationship ($r=.25$, $p<.05$) between the mean scores on the total preparedness scale ($M=14.04$, $SD=4.27$) and scores that reflect students’ satisfaction with teacher-to-student interaction in an online course ($M=2.10$, $SD=1.22$). This suggests that students who are prepared for an online course are more satisfied with teacher-to-student interaction in an online course.
ANOVA. An analysis of variance (ANOVA) was conducted to determine whether there were statistically significant ($\alpha=.05$) differences between the mean scores on the total preparedness scale ($M=14.04, SD=4.27$) among participants living in (a) urban areas, (b) suburban areas, and (c) rural areas. No statistically significant differences were found, which suggests that students living in each of these geographic areas are equally as prepared (or unprepared) for online learning experiences.

**Summary of Quantitative Results**

In summary, the most significant correlation results within this study involved students’ high school GPA. The results indicated that the higher the high school GPA, the more confident participants felt in their ability to be successful in the online learning environment. Participants with higher GPAs also estimated that they would require less time to prepare for their lessons on a weekly basis. Participants also indicated that they were satisfied with the turnaround time for graded materials, the learning management system used by each institution, the convenience of online learning, their connection with the institution and their peers, using threaded discussions to express their thoughts and opinions, and the ability or option to contact the online instructor. Satisfaction levels with all the above-mentioned items were statistically significant with the preparation scale, indicating that the more prepared the participants were, the more satisfied they were with the items above.

In addition, participants felt prepared to turn in assignments and take online quizzes. The participants also felt that by owning a computer they were prepared to learn online. The results of this study also indicated that age is predictive of satisfaction levels with online learning. The older students are, the more satisfied they are with online courses or programs. Overall, participants reported that they were satisfied with the knowledge they gained in online learning
environments. The satisfaction of older students could also be associated with Piaget’s cognitive development theory, which deals with the nature of knowledge itself and how humans come gradually to acquire, construct, and use it. To Piaget, cognitive development was a progressive reorganization of mental processes as a result of biological maturation and environmental experience (McLeod, 2009). This theory could be applied to the results, in which, the older students were more cognitively developed than the younger students based on maturity and experience. Overall, giving the older student an advantage to learning in an online environment where self-discipline and motivation are key to succeeding in completion.

Qualitative Analysis

Results for RQ 3: What relationship, if any, exists between environmental variables and online satisfaction and preparation levels?

To answer RQ3, the researcher analyzed two qualitative items in the questionnaire. The purpose of including open-ended items was to elicit opinions and suggestions from participants about ways to improve the online learning environment. The questionnaire featured two items (Item 16 and Item 17) that allowed participants to write in responses: (a) What could the institution do to enhance the online course environment? and (b) How does your preparedness for taking an online class impact your decision to take another online course in the future? The responses to these items were analyzed using two first-cycle coding methods (descriptive coding and in vivo coding) and one second-cycle coding method (pattern coding). According to Saldana (2012), descriptive coding “summarizes in a word or short phrase--most often as a noun--the basic topic of a passage of qualitative data” (p. 70). While descriptive coding uses language initiated by the researcher in response to the text, in vivo coding “refers to a word or short phrase from the actual language [italics added] found in the qualitative data record” (Saldana, 2012, p.
The purpose of creating an in vivo code is to ensure that concepts remain as close as possible to research participants' own words (Saldana, 2012). While descriptive coding and in vivo coding refer to first-cycle coding processes, pattern coding is a second-cycle process. When pattern coding, researchers categorize first-cycle codes (e.g., descriptive codes and in vivo codes) into themes. It is when you search for patterns in coded data to categorize them. Pattern coding is grouping data together not just because they are exactly alike or very much alike, but because they might also have something in common (Saldana, 2012).

**Item 16.** Item 16 asked participants to provide suggestions about steps that institutions could take to enhance the online course environment (see Table 14). The first column presents key comments that participants provided in response to Item 16. The second column presents the number of students who provided a similar comment. The third column indicates the percentage of participants who provided comments in that particular category based on the number of participants. The last three columns indicate the descriptive code, the pattern code, and the assertions derived from the second-cycle coding process. The assertions were constructed based on an analysis of the pattern codes, descriptive codes, and in vivo codes. In summary, themes were found based on the open-ended answers of the participants of the survey and assumptions were derived by the results. Table 18 and Table 19 are two examples of the process used to develop first-cycle codes (in vivo codes and descriptive codes), second-cycle codes (pattern codes), and assertions.

Table 18

<table>
<thead>
<tr>
<th>In Vivo Code Text Segment</th>
<th>N</th>
<th>%</th>
<th>Descriptive Code</th>
<th>Pattern Code</th>
<th>Assertion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing, everything is great, I actually think</td>
<td>15</td>
<td>20.8%</td>
<td>No suggestions</td>
<td>No suggestions</td>
<td>The students are satisfied</td>
</tr>
</tbody>
</table>
The online class setup is a great program and enables students to access information easily, the courses are set up wonderfully. Live interaction is useful, webcam recordings, IMing for immediate responses, interactive modules, videos, audio.

<table>
<thead>
<tr>
<th></th>
<th>12</th>
<th>16.6%</th>
<th>Incorporate live lectures, audio and video</th>
<th>More interactive learning</th>
<th>Live instructions, providing clearer instruction and deadlines and incorporating more interactive modules is under the instructor control. The professors’ efforts and being accessible is a critical finding in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Clearer instructions and/or deadlines provided by the instructor</strong></td>
<td><strong>Clearer instructions provided by the instructor</strong></td>
<td><strong>Clearer instructions provided by the instructor</strong></td>
</tr>
</tbody>
</table>

More effective lectures, explain how much time is needed to complete tasks, details about and how to submit assignments, provide examples, Wednesday deadlines for posts are not enough time to read the material, prepare students for what they are getting into, provide better tutorials.
Professors make the course they should all greet the students and prepare for the week ahead, train instructors how to teach and respond to e-mails properly, have professors get acquainted with the course prior to the course beginning, Keep up with the grades, review classes daily, reduce or remove group projects, no required meeting times

<table>
<thead>
<tr>
<th>If I do not have connection with the professor I have less motivation to complete my assignments, readily available professors, more accessible professors,</th>
<th>8</th>
<th>11.1%</th>
<th>More instructor availability</th>
<th>Easier access to instructors</th>
</tr>
</thead>
</table>

More friendly interface, switch to Blackboard, make the site easier to navigate, make sites organized, have course available before start date, easier places to find your research, Make software available or Internet available to students who do not have access

<table>
<thead>
<tr>
<th>More friendly interface, switch to Blackboard, make the site easier to navigate, make sites organized, have course available before start date, easier places to find your research, Make software available or Internet available to students who do not have access</th>
<th>8</th>
<th>11.1%</th>
<th>Friendlier LMS, software and internet options</th>
<th>Learning management and technology suggestions</th>
<th>Some students will struggle with technology or the LMS and there will always be room for improvements or suggestions</th>
</tr>
</thead>
</table>

Save complex classes for seated only, have only elective classes

| Save complex classes for seated only, have only elective classes | 7 | 9.7% | Seated, hybrid and online | Course and student choices in | Students will always have their |
online, split the classes as hybrid, meet at certain times during the semester, add more online courses to decrease rarity

course options course selection preference in seated, hybrid or online courses. It depends on their learning style and the course they are taking

<table>
<thead>
<tr>
<th>Total</th>
<th>72</th>
<th>99.7%</th>
</tr>
</thead>
</table>

**Item 17.** Item 17 asked participants to consider how their preparation for taking an online course might influence their decision to enroll in another online course in the future (see Table 15). The first column presents every comment that participants provided in response to Item 16. The second column presents the number of students who provided the comments. The third column indicates the percentage of participants who provided comments in that particular category. The last three columns indicate the descriptive code, the pattern code, and the assertions derived from the second-cycle coding process. The assertions were constructed based on an analysis of the pattern codes, descriptive codes, and in vivo codes.

**Table 19**

*How does your preparedness for taking an online class impact your decision to take another online course in the future?*

<table>
<thead>
<tr>
<th>In Vivo Code Text Segment</th>
<th>N</th>
<th>%</th>
<th>Descriptive Code</th>
<th>Pattern Code</th>
<th>Assertion</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is essential to be prepared every week, manage time wisely, it makes everything easier, preparation impacts my entire decision to take online classes, it takes much of the anxiety out of it, it is relaxing when you</td>
<td>23</td>
<td>30.6%</td>
<td>Ability to maintaining preparation is key to enrolling in another online course</td>
<td>Preparation</td>
<td>Students prepare themselves for taking and completing online courses, they feel this is the key to their success in the online courses</td>
</tr>
<tr>
<td>Opinion</td>
<td>Frequency</td>
<td>Percentage</td>
<td>Action</td>
<td>Reason</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>------------</td>
<td>--------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Online classes are great, a satisfactory experience, enjoyed all online classes, easy to follow, will take another online class, if comfortable with technology then you’ll feel comfortable to learn online, as long as students have internet it should not be difficult</td>
<td>17</td>
<td>22.6%</td>
<td>Like online classes- will take another online course</td>
<td>Because students enjoyed the online learning experience they have intentions to re-enroll or take another online course in the future</td>
<td></td>
</tr>
<tr>
<td>My job does not make it easy to take seated courses, my availability is the reason for taking online courses, it was a means to an end to earn a degree, flexibility in my pursuit to a degree, do not have time to sit in a classroom, it is convenient</td>
<td>13</td>
<td>17.3%</td>
<td>Have no choice to take online courses if I want a degree</td>
<td>Some students are going to take online courses because it is the only option for them to achieve a degree. Schedules do not allow for seated course times and therefore their attitude towards the course would not matter, as long as they were motivated to earn a degree</td>
<td></td>
</tr>
<tr>
<td>I would not recommend taking online courses, hate taking online courses, not a fan of online courses and would rather be in a classroom, it was a lot of work, like face-to-face classes better, not as informative as campus atmosphere</td>
<td>12</td>
<td>16%</td>
<td>Do not like online course- Like seated courses better Online versus seated course option</td>
<td>Some students will not like learning online and prefer to be in a seated environment or they prefer a campus atmosphere as opposed to a computer or blogging</td>
<td></td>
</tr>
<tr>
<td>It doesn’t make a difference in my decision</td>
<td>5  6.6%</td>
<td>Preparation does not make a difference in the decision to take another online course</td>
<td>No difference or influence in re-enrolling in online courses</td>
<td>Preparation does not dictate whether or not some students continue to take online courses, they are not influenced by preparation in their decision to re-enroll</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>---------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>The professor is the strong influencer on the decision, there are certain instructors that I will not take in the future, as long as my professor is well prepared, if I learn the material better online or in the classroom with the professor</td>
<td>5  6.6%</td>
<td>Determines how I learn the information and the professor’s efforts</td>
<td>Technology as an influencer in the decision to re-enroll in another online course</td>
<td>Professors will have an impact on student’s success, preparation and experience. Therefore the instructor needs to provide a satisfactory experience so that students want to re-enroll in another online course or program</td>
<td></td>
</tr>
</tbody>
</table>

**Total** 75 99.7%

**Summary of Qualitative Results**

The following themes came from the qualitative results of item 16 asking their opinion on how to improve online learning at their institution: Interactive learning, clearer instructions and deadlines, instructor availability and a friendlier LMS. The participants held a variety of opinions about online learning. Sixteen percent of participants indicated they would prefer more interactive or immediate learning. A combined 34% of participants provided suggestions for instructors: incorporate clearer instructions and deadlines, incorporate proficient professors who
give a valid effort, and increase the instructor’s availability. Eleven percent suggested a friendlier learning management system, and the remaining 9% indicated having more options in course delivery, e.g., online, seated, or hybrid.

Preparation, convenience, and influence were the themes that came from the qualitative results of item 17 when the participants were asked the following question: How does your preparedness for taking an online class impact your decision to take another online course in the future? Thirty percent reported that preparation is key to successfully completing an online course, 22% enjoyed learning online and would take another online course, and 17% reported taking online courses because they are convenient. In contrast, 16% of the participants reported that they did not like taking online courses, and the remaining 12% indicated there are little or no personal or preparation influences in taking another online course. Even though students indicated little or no influence in making the decision to take another online course, the professor was a key influencer, based on the experience the professor provided in the course. Students recommended using more live broadcasting or interactive learning in the online environment. Both institutions participating in this study indicated that 90% of their online learning environments operate as asynchronous, allowing students to learn on their own time, instead of a synchronous learning style in which students are required to be online on a certain day and at a certain time.

**Summary of the Results**

This chapter provides results of a series of correlation analyses and the results of analyzing two qualitative open-ended questions. The quantitative results indicated that significant relationships exist between online learning preparedness and satisfaction. The qualitative results affirmed that 147 students were willing to leave feedback on institutional
changes in the online learning environment as well as whether preparedness has any effect on taking additional courses online.

In summary, the qualitative results indicate that 16% of participants indicated interactive learning is a way of replicating interactions that occur in a seated environment--e.g., student-teacher relationships and traditional aged college student (age 18-23) comprised 43% of the study; however, 82% of the respondents lived off campus.

- Students taking online courses have less anxiety if they own a computer. 99% of the respondents had a computer at home, and 98% had access to the Internet at home.
- Students with a higher high school GPA are more confident in their ability to learn online. The majority of the respondents had a high school GPA of 3.6 or higher, and 14% of the respondents had already taken an online course in high school.
- Most students taking an online course live off campus.
- Convenience is the main reason students take online courses.
- The majority of the students (28%) indicated they expected to spend 1-4 hours or 5-8 hours (35%) online each week.

Chapter 4 provided the results of both the qualitative and quantitative analyses. Chapter 5 presents discussion of the results, limitations, and recommendations for future research.
Chapter Five
Discussion

The purpose of this study was to determine whether students’ level of preparedness (a) helps them succeed in online courses and (b) creates learner satisfaction. A secondary purpose of this study was to help researchers, administrators, and educators understand the extent to which online learners are prepared to enter online learning environments by exploring student preparedness and satisfaction levels. The results of the study may benefit institutions by providing information that may support more effective online learning environments, aid in incorporating training for students, help implement online preparation strategies, and better prepare students for their online experience.

This chapter discusses the results, how the I-E-O theory helped understand the findings (implications for the use of the theory). How the results contributed to the literature, limitations of the study, recommendations for policy and practice, and recommendations for further research. The following four themes are discussed in this chapter: (a) student preparedness; (b) student characteristics, i.e., age and high school grade point average; (c) faculty preparedness; and (d) reasons why students continue to take online classes. Researchers and educational theorists have speculated that virtual learning will not replace face-to-face pedagogy entirely; however, they also have agreed that online learning will definitely play an increasingly important role in the future of higher education (Hoare, 2001). Educators and administrators need to be prepared to take on this avenue of educational access and learning. Continuing to research student and faculty perceptions will help guide future online course design as well as online educational programs. In addition to the need for preparation, understanding the needs and
characteristics of online learners will provide a benchmark for targeting and recruiting students in the online programs while possibly producing satisfied online students.

**Conclusions**

The following conclusions were drawn based on correlation and ANOVA data analyses.

**RQ1: What is the relationship, if any, between students’ perceived levels of preparedness and their actual preparedness after completing an online course?**

**Finding #1: Student preparation.** Correlation Analysis No. 5 revealed a statistically significant relationship ($r = .341, p = .000$) between the mean scores on the preparedness scale ($M = 14.04, SD = 4.27$) and the mean scores on the perceived preparedness scale to take an online course ($M = 13.98, SD = 5.27$). This suggests that students felt prepared to take an online course in college. However, they were not prepared to spend the recommended time to complete or prepare for assignments and activities from week to week. According to the results, the students expected to spend only 1-4 hours (28%) or 5-8 hours (35%) online each week, which is far less than the research literature suggests. Research has suggested that 8-18 hours per week are needed to complete an online learning course successfully (Palmer & Holt, 2008; Allen and Seaman, 2010).

Expectations and preparedness can have an impact on students’ evaluation of the online learning experience. If students’ expectations are not met and students are unprepared, the overall online experience will be less satisfying. A point that stood out from the results concerned online tutorials. The majority of students did not take and would not take a tutorial if it were offered. This indicates that students would rather learn by trial and error or rely on the instructor for precise and exact directions and instruction. The results of this study indicated that the more prepared students were, the more satisfied they were with the online course. The
results are confirmed by literature from Buzzetto-More, (2008) that the importance of preparedness and the attitudes of students have been acknowledged as playing a crucial role both in hybrid and online learning outcomes. The student might feel less anxiety when they feel prepared, giving them a better overall experience with learning online.

**RQ 2: What relationship, if any, exists between (a) student characteristics and (b) online satisfaction and preparation levels?**

**Finding #2 Student characteristics.** Online students’ characteristics play a major role in the expectations and outcomes in online courses. The two characteristics that stood out in the findings were the online students’ high school grade point average and their age. In this research on a 4.0 grade point scale, 40% of the respondents had a self-reported 3.6-4.0 GPA and 28% of the respondents had a 3.1-3.5 high school GPA. According to correlation Analysis 13, the analysis revealed a statistically significant relationship ($r=-.243, p=.016$) between the number of hours students expected to spend online weekly in an online course ($M=8.42, SD=8.061$) and students’ high school GPA ($M=3.37, SD=.541$). This suggests that students with higher high school GPAs feel more confident in their ability to learn in an online environment and, as a result, estimate that they will spend fewer hours online per week. The findings of the study indicates that high school student with higher GPA complete the online courses successfully.

Student characteristics remain a common research area for online learning studies. According to Braun (2008), institutions have recognized a growing number of adult students and have attempted to capture this student demographic with online course offerings. According to Lorenzetti (2005), the average age of online students is three years older than the average age of traditional on-campus students. According to correlation analysis 15, the analysis revealed a statistically significant positive relationship ($r=.20, p<.05$) between the age of students
(\(M=28.72, SD=9.83\)) and the mean scores on the satisfaction scale (\(M=16.11, SD=6.30\)). This suggests that the older students are, the more satisfied they are with online learning and the younger the student, the less satisfied they are with online learning experience. No sure about the previous sentence. It seems to contradict with direct from high school student’s achievement on the online learning experience. The mean average age (\(M=28.72, SD=9.83\)) of participants was slightly higher than the age of the “traditional college student” (i.e., 18-25).

Some professors and administrators say that today’s students prefer Internet-based courses because their generation lives online (Parry, 2010). The online education model has to be adapted to suit this generation of learners, who want to learn, but they want to learn only what they have to learn, and they want to learn it in a style that best suits their lifestyles and preferences (Pena & Yeung, 2010). An assumption that an online option of learning will suit all learners may not be realistic. Not only does this generation live online, but the global population lives and operates online.

RQ 3: What relationship, if any, exists between (a) environmental variables and online satisfaction levels and (b) environmental variables and preparation levels?

Finding #3: Faculty preparation. Students indicated that faculty qualifications were important to online students—more specifically, having highly qualified faculty members teaching the online courses. According to researchers, the role of the teacher needs to be recognized as an important component of students’ success (Boulton, 2002). According to research, the ideal virtual teacher should possess six key characteristics: (1) an interest in innovation and in technology, (2) creativity and enthusiasm, (3) a desire and ability to work collaboratively, (4) a commitment to put students first, (5) a willingness to work with parents, and (6) technology skills and the ability to adapt quickly to change (Barker & Wendel, 2001). Two different
analyses in this study, correlation analysis 7 and correlation analysis 16 revealed a statistically significant positive relationship \((r=.39, p<.001)\) between scores that reflect students’ perceived ability to contact their instructor for assistance in an online course \((M=1.60, SD=.801)\) and the mean scores on the satisfaction scale \((M=16.11, SD=6.30)\). This suggests that when students are prepared to contact the instructor in an online course, satisfaction with online learning experiences increases. Also correlation analysis 16 revealed a statistically significant positive relationship \((r=.25, p<.05)\) between the mean scores on the total preparedness scale \((M=14.04, SD=4.27)\) and scores that reflect students’ satisfaction with teacher-to-student interaction in an online course \((M=2.10, SD=1.22)\). This suggests that students who are prepared for an online course are more satisfied with teacher-to-student interaction in an online course.

Student success stems from the ability of the instructor to accurately guide students through the semester by applying these characteristics. As for technical support and training, researchers have suggested that minimum training and expectations should be provided that enable instructors to become familiar with the features with the course management system and incorporate basic instructional support technologies, such as streaming media (Mansour & Mupinga, 2007; Alexander, Zhao, Perreault, & Waldman, 2009).

**Finding #4 Why students take online courses.** Another common research area in online learning, is discovering why students take online courses. Researchers have suggested that students enroll in online courses for a variety of reasons: (a) they might want to see what it is like to learn in an online environment, (b) they may not be able to attend an on-site class, (c) they work full time, (d) they have family obligations, or (e) they simply enjoy the convenience of online learning (Allen & Seaman, 2010). According to this study and the literature the main
reason students continue to take online courses is for the convenience and it is also as a means to a degree.

In correlation analysis 2 there was a statistically significant relationship \((r=.315, p=.001)\) between the mean scores on the total preparedness scale \((M=14.04, SD=4.27)\) and scores that reflect students’ satisfaction with the convenience of taking an online course \((M=1.56, SD=.759)\). This suggests that students who are more prepared for an online learning course are more satisfied with the convenience of taking an online course. The schedules of some students do not permit them to attend on-site courses, so enrolling in a flexible online course is the only way some students are able to earn a degree.

**Discussions and Implications**

As mentioned above there were four significant findings in this study: student preparation, student characteristics, faculty preparation, and why students take online courses. According to the research the four findings indicated that preparation and satisfaction are correlated in an online learning environment. Certain characteristics are significant in a successful online student. Faculty members play an important role in whether students are satisfied with the course or if they will take another online course. Lastly, students take online courses for various reasons and identifying the main reasons will help in the recruiting or marketing aspect of online courses and programs as well as meeting the needs of the current students.

**Preparation**

As an online teacher and student advisor, it is my belief that it is essential to prepare students for all types of learning environments. It is a continual challenge to guide online students who expect to succeed when they are frustrated and panicked because they do not
understand how to navigate throughout the online course environment. In my teaching experience, seldom have students been fully prepared to spend the amount of time truly necessary each week to successfully complete the required online tasks, nor have they been aware of how to learn effectively in an online environment. More importantly, defining preparation is a challenge. Even in this study, there was a challenge with defining preparation. The term may be too vague and too subjective. There is a difference between being unprepared and being underprepared. Being unprepared can be exhibited by commenting in class without being familiar with the material through prior reading assignments or assigned preparatory activities. On the other hand, being underprepared to take an online course can stem from a lack of experience with online learning in high school or the first year(s) in college. Either term is a hindrance on creating a satisfied and successful online student that is fully prepared and motivated to complete an online course within the desired expectations of the student and faculty.

According to Palmer and Holt (2008) students spent four hours a week or fewer studying, whereas it would normally be expected that students would spend 8-10 hours per week to be fully prepared for the weekly activities. According to the research results the students expected to spend only 1-4 hours (28%) or 5-8 hours (35%) online each week, which is far less than the research literature suggests. This is a problem that needs to be addressed and clearly identifying expectations to the students would be critical to most first-time online learners.

Students also need to be confident that they can be successful in the online learning environment (Sloan Consortium, 2002). Some students find themselves learning more in an online environment, while other students find that learning online does not accommodate their learning styles or enhance their motivation to learn. The importance of technological
preparedness and the attitudes of students has been acknowledged as playing a crucial role both in hybrid and online learning courses (Buzzetto-More, 2008). In the findings of this study, only 18% of respondents expected to spend the maximum suggested hours online each week in their course. Indicating that the remaining 82% of students had a misconception of what is really needed and expected on a week-to-week basis to successfully complete an online course.

**Characteristics**

According to Buzzetto-More (2008), educators have emphasized the following student characteristics as crucial both in hybrid and online learning environments: technological preparedness, willingness to be motivated, willingness to be self-directed, adoption of an optimistic mindset (Buzzetto-More, 2008). In this research on a 4.0 grade point scale, 40% of the respondents had a self-reported 3.6-4.0 GPA and 28% of the respondents had a 3.1-3.5 high school GPA. This indicates that the upper quadrant of high school students are electing to take online courses in college.

Palloff and Pratt (2001), as have others indicated that successful online learners voluntarily seek further education, have higher expectations, possess more discipline, are older than traditional students, enjoy learning for its own sake, demonstrate good thinking skills, are able to work independently with limited structure, and recognize the value of interacting with other online peers (Beaudoin, Kurtz, & Eden, 2009). Successful online learning requires special student skills: (a) computing, (b) literacy discussion, (c) time management, and (d) interpersonal interaction (Rovai, 2003). So most research explores what it takes to be a successful online learner however research is lacking in the comparison of high school GPA and the success rates of online learning in college.
Maturity or lack of maturity has been reported as a factor that contributes to dropout rates. In a 2009 study by Noel-Levitz Priorities Survey for Online Learners (PSOL) found that 40% of all online learners did not complete their online course. The average age of online students is three years older than the average age of traditional on-campus students (Lorenzetti, 2005). In this study the mean average age ($M=28.72$, $SD=9.83$) of participants was slightly higher than the age of the “traditional college student” (i.e., 18-25). This suggests the older the student, the more likely that he or she will be successful and complete not only the individual course but also the entire academic program. According to Braun, (2008) institutions have recognized the growing number of adult students and have attempted to capture this student demographic with online course offerings. The current research in online learning may be skewed by the economy and the fact that many adult students are going back to school.

Studies show that adult students have more extensive life experiences, more serious in their education, more emotionally stable, more willing to participate in the structure of their own learning, more reflective and more realistic about their workload (Moore & Kearsley, 2005). Most research is not dedicated to a specific age group or class rank (freshman, sophomore, junior or senior), which makes it difficult to make a specific conclusion regarding age and success in online learning environments, what researchers can assume is that age groups carry certain characteristics as mentioned above, which would result in various perceptions and outcomes in age defined research studies.

**Faculty**

The findings of the qualitative analysis indicated that students consider faculty members and/or instructors/professors to be a valuable asset in the online learning environment. Students reported that they appreciate when instructors inform them on a weekly basis about assignments
that are due and the specific steps required for completing assignments. Students also indicated they wanted interactive learning, live discussion, immediate access, video, audio, etc. to enhance their online learning experience. According to Simonson, Schlosser, and Hanson (1999), it is likely that different students in various locations, learning at different times, will demonstrate a variety of preferences in their learning experiences. When instructors are more readily available to students, students are more likely to be engaged in the course and its content. Faculty–student interaction plays a critical role in the learning process, such as engaging students in active learning, easing frustration during a stressed time, facilitating students in choosing a topic, etc. (Chickering & Ehrmann, 1987). Interaction takes place in many forms such as presenting content in a dialogue format, providing timely feedback to student inquiries and comments on assignments. Kegeen (1995) also emphasizes that reintegration of the act teaching in distance learning courses was related to retention and achievement. Reintegration can be conducted using a variety of techniques including communication by phone, email discussions, blogs, wiki, web conferencing, and pre-programmed feedback in Course Management Systems (CMS) quizzes and assignment tools. Therefore, faculty members in online learning programs should maintain positive, meaningful interaction with students via a wide range of communication channels to ensure satisfactory learning experiences.

Teacher involvement is an important component that helps determine not only the level of satisfaction that students find in their online learning experience but also their performance. Lau (2000) has suggested that student-instructor interaction is an important contributor to learner satisfaction and an important part of the learning experience (Lau, 2000). Engagement with students, peers, and instructors in an online environment is a key contributor to student satisfaction. Yukselturk and Yildirim (2008) concluded that the major factors influencing student
satisfaction are interaction with instructors and peers, course structure, institutional support, and flexibility. Students are very diverse in their learning styles and learning abilities, and it is uncommon to be able to teach an entire class with an emphasis on only one learning style (e.g., auditory) and expect all the students to experience the same learning outcome. According to researchers, the role of the teacher needs to be recognized as an important component of students’ success (Boulton, 2002).

Yukselturk & Yildirim (2008), found instructors have reported that online teaching has advantages and disadvantages when compared to on-site teaching. Researchers reported that the major advantages of online education (especially asynchronous environments) are found in increased flexibility because instructors are not obligated to be present at a particular location or in a particular classroom (Yukselturk & Yildirim, 2008). Wilkes, Simon, and Brooks (2006), state traditional courses offer a greater number of opportunities for interaction and discussion than do online courses. Some students feel more confident in an online discussion than in a seated classroom, encouraging more students to participate and discuss topics with thorough detail and interaction.

The key to successful and satisfied learners, discussed in this study and the reported research, is interaction. Online classrooms have been linked to a variety of positive outcomes, such as increased interaction and engagement, increased understanding of student comprehension, increased participation due to anonymity, increased class attendance, enhanced conceptual reasoning, and cognitive integration between concepts (Elliot, 2003; Fies & Marshall, 2006; Kennedy & Cutts, 2008; Nicol & Boyle, 2003). This study did not investigate the individual instructors or the design of the course. Investigating these two factors would have helped identify and differentiate the positive aspects of course design and instructor pedagogy.
Simonson et al. (2008) observed that the perceived instructor interaction by the learner is more of a predictor of the learners’ conclusions about the class than the actual instructor interaction. As indicated in this study, instructor interaction tends to have a big influence on students’ overall perception of the class experience. As indicated in this study, the students wanted more interaction and more readily available instructors. It is also suggested that a student-student interaction structure should be built into online learning courses to engage students in both social and cognitive perspectives via a variety of online activities.

**Why Students Take Online Courses**

According to Allen and Seaman (2010), more than 5.6 million students took at least one online course during the fall 2009 term, and according to Noel-Levitz (2011), 30% of higher education students now take at least one course online. We know that students are taking online courses, but knowing why students are taking them is just as important. Researchers have suggested that students enroll in online courses for a variety of reasons: (a) they might want to see what it is like to learn in an online environment, (b) they may not be able to attend an on-site class, (c) they work full time, (d) they have family obligations, or (e) they simply enjoy the convenience of online learning. The top reasons for taking online courses are flexibility, convenience, and learning enhancement (Song & Kidd, 2005).

This study supported Song and Kidd’s findings in that 17% of the research participants indicated they take online because they are convenient. So regardless of whether they like or dislike the option of online learning, most students have little choice if they want to earn a degree. According to Hiltz and Turoff (2005), more than 50% of adult U.S. students returning to college or who are working students indicated they prefer the convenience of online options.
Implications for Using Astin’s I-E-O Theory

Using Alexander Astin’s I-E-O model was useful in this study because the variables were separated into the three categories of Inputs, Environment, and Outputs. Using the findings from this study within Astin’s I-E-O model resulted in strategies that increase the effectiveness of online learning environments by identifying needed characteristics in the Input and Environment guidelines of the model. Furthermore, identifying (a) the types of information students need prior to enrolling in online courses and (b) the experiences students needed during these online classes helped identify what satisfied online students look for. The only caveat to this study, regarding the input variables, was that it was all self-reported data by the participant. According to Astin (1993), the primary intent of the I-E-O model is to account for possible changes that institutional environments have on student outcomes while also controlling for the input characteristics of entering students.

Based on the findings from this study using Alexander Astin’s I-E-O Theory found that students with higher high school GPA’s tend to take online courses. On a 4.0 grade point scale, 40% of the respondents had a self-reported 3.6-4.0 GPA and 28% of the respondents had a 3.1-3.5 high school GPA. This indicates that the upper quadrant of high school students are electing to take online courses in college. These same students also perceive they need less time to complete weekly activities and spend less time online than the recommended amount of time, which was an environment variable within this study.

Students were able to comment about the environment of the online course and indicated that they prefer for interaction and interactive learning. The environmental variables seem to be the driving force to this study’s outputs. The outputs driving this study were satisfied online learners. If the students were satisfied with their experience in the online classroom, then using
the input factors as an admission standard would be beneficial to the institution. Also, based on
the research results of the online environment, institutions can impose these suggestions to all
online faculty. In summary, following Astin’s I-E-O model helped create guiding improvements
based on input variables of online students and environment preferences. According to Astin
(1993) the premise of the model is that educational assessments are not complete unless the
assessment includes information about student inputs, the environment, and student outcomes.

**Recommendations for Practice**

Based on the results of the research, there are two recommendations for practice:

- Gather information about why the student chose to take an online course
- Create a survey for improvements or recommendations and an exit survey

First, based on the results of this study the information supported the literature that the
overarching reason students take online courses is for convenience. Convenience is made
through access, course design, and program completion plans. However, knowing why students
take online courses in each region or at each institution would be critical information to gather.
There might be a logistical reason, an access issue, or education might be encouraged or
reimbursed through an employer. Assuming the choice is up to the student, they should be asked
why they are taking the class, this could help make the student feel important and it could help
the faculty relate the information in a more personalized approach. The research literature is
consistent in that many students, especially adult students seek class content that is relevant to
their personal and professional lives. Knowing this information could also assist in the
marketing of the online courses and programs both undergraduate and graduate.

Second, based on the results of this study, each institution should have and incorporate
surveys for all online courses. The first survey should encourage opinions for improvement and
the second survey should be taken by students that leave or drop out before completing the course. The benefit of incorporating an opinion survey would be to create continual improvements to all online courses and learners. Continuing to make changes and adjustments to course design, course training, faculty training or student training would allow the students and faculty to work seamlessly with changing technology and changing pedagogy. The benefit of creating an exit survey would be to gather information about the students who are dissatisfied or underprepared to take an online course. Knowing this valuable information could create a guideline for change that may help make online learning and online learning environments friendly and inviting for all students who are interested in learning online. If an institution does not recognize or acknowledge the weaknesses of the program or course design, improvements cannot be made effectively for future online students. According to Astin, a good assessment is really good research, and the definitive aim should be to help administrators within higher education institutions make better choices and better decisions about managing distance learning programs (Astin, 1993).

**Recommendations for Policy**

Based on the results of the research, there are three recommendations for policy:

- Require training for all students before taking an online course.
- Require faculty development for instructors before and during teaching assignment.
- Require students be at least a sophomore in standing before taking an online course.

First, based on the responses from the questionnaire items institutions should offer or enforce training for all first-time online students. Although not all students would feel the need to
take or use a tutorial or training, students would have it available 2-3 weeks prior to the first week of class. According to this study, students are entering into the course perceiving they know how to navigate and utilize the needed technology however there are some areas that students wanted more training in i.e., working in virtual groups. So the benefit of training could give them the option to familiarize themselves with course expectations and resources. Training or tutorials would also allow students an introductory period where they can answer questions and get familiar with navigating through the system. This would also encourage students to order their books in a timely manner and prepare for the first week of class.

Second, based on the suggestions of the participants from this study, each institution needs to enforce or require faculty development for online faculty. Research has suggested that each institution has its own mandate on faculty development, providing resources, and providing a center for teaching excellence, but few institutions make it mandatory for the faculty to engage these resources (Allen & Seaman, 2004). This should be included as part of the workload agreement, if you want/have to teach online, each faculty member is required to complete faculty development in online teaching. Compensation is not offered for participants in this area of development. The benefit of faculty development in online teaching would be to create a standardization of knowledge needed to begin teaching online and the activities and actions needed to engage students to create a personalized learning environment for all students in the online environment. Creating an effective pedagogical approach and incorporating up-to-date technology resources will increase student satisfaction and give students a sense of community while learning. Students were not confident that faculty understood important aspect of online learning and relied on discussion boards and non-interactive activities or assignments. In an online learning environment, interaction should be a high priority. Understanding and using
interactive methods are skills that can be learned through institutional training. Faculty need to be effective and good at teaching, whether in the classroom or online. Higher education institutions should encourage faculty members to participate in a variety of faculty development programs that include training, services, and incentives designed to prepare faculty members to engage students in active learning (Fink, 2007). Have strategic plans for continued improvement of online courses and programs through a range of evaluation processes. Institutions could also provide instructional designers to online faculty members in providing quality pedagogical and technological support so that instructors can focus on engaging students in the teaching learning process.

Third, based on research and the results of this study since students take education more seriously when they are more mature, advisers and administrators should encourage on-campus students to be at least at the Sophomore or Junior level before taking their first online class. The benefit of encouraging this would be to allow the student to get acquainted with expectations as a student, and allow for increased maturity. Students living on campus should only be encouraged to take online courses if scheduling issues occur, the purpose of living on campus is to fully get the experience of being on campus and in classrooms.

Contributions to the Literature

While other studies have investigated different characteristics of online learning for example, characteristics of online learners, satisfaction of online learners, and online learners expectations, however the studies are designed to answer specific questions within one specific area of online learning. This study investigated three specific characteristics: how prepared students feel when they enter an online class, how satisfied students feel after taking the online course, and suggestions that students have for creating a satisfactory online learning experience.
This study and the results contribute to the literature by discovering how to merge and marry specific online learning issues and creating a satisfied online learner. More specifically this study discovered that the more prepared an online student was prior to the course the more satisfied they were with their experience and knowledge gained from the course. This is important information to add to the literature.

This study contributes to the literature by confirming that students place a high value on the online faculty. Based on the qualitative results from this study, students had a strong opinion about faculty in online learning courses. Students expressed what they want and need from an online instructor. This information is especially valuable to the literature since online learning is continuing to grow and more instructors are going to be teaching online.

This study contributes to the literature by adding data about online learning in small private institutions. The majority of the current literature includes large or public institutions and their online learning policies and procedures. This study was completed by using two small private institutions that started their online programs in house and from the ground up. Additional gaps in the literature this study filled were identifying the need for additional research in online tutorials and the motivation to take them. As this study indicated students did not want to take an online tutorial even if it was offered. This is valuable data as future research in this area can conclude the reasoning behind this.

Lastly, this study helped to identify the need to document and compare successful online students’ progress and completion rates with high school grade point averages. There is currently no significant research available indicating if there is a comparison of success with online learning completion and high school GPA. Although high school GPA was self-reported in this study, the majority of the online students seems to have a B average or above. This is
important information added to the body of literature as standards and qualifications for taking or entering online programs increase or are set.

**Limitations**

First, the study was conducted during only one semester of an academic year and at only two private, four-year institutions. Although effective, the sample could have included more students from different backgrounds and grade levels. Including more students from different groups might have provided more robust understanding of students’ perspectives coming from different backgrounds. Also, as more students begin taking online courses in high school, the results of this study will have a limited shelf life because students will be obtaining more experience in learning online. Technology changes so rapidly and as a result, so does educational technology. Therefore the preferences and satisfaction levels that students reported in this study may be obsolete in a few years as technology and education changes.

Secondly, the study included participants only from undergraduate programs at two institutions. The study also lacked identifying student’s gender. Although this study had valuable data from the undergraduate students at the two institutions, it limited the responses and recommendations from the study. The study results could only provide information for undergraduate programs and courses. Because this study only provided information for undergraduate students it could not provide a more specific understanding of the entire student body enrolled in online courses more specifically male versus female students and their opinions, satisfaction and preparation levels.

Third, this study lacked faculty data input. The results of the qualitative analysis indicated that students would prefer to have more competent faculty. Knowing whether faculty members felt prepared or were given training to teach online would be a major factor in the study
and would have allowed the faculty to have a voice. They could have, in a sense defended the opinions of the students.

Fourth, not being able to provide a pre and post survey has created a limitation. The attrition rates and or the students who dropped the course prior to taking the survey could have impacted the results. Requesting information about the reasons why students dropped the courses would have benefitted the literature, and allowed for better recommendations for practice after identifying the major issues or reasons students drop from online courses. For example, students may have dropped out of only the class, or they could have dropped out of the institution altogether, and the reasons for dropping are important to discover. Moreover, including a pilot study would have helped to eliminate some limitations within the study.

Lastly, more clarity and specificity could have been provided in the questionnaire regarding the term “preparation.” For example, students’ definition of “preparation” (see Table 15) may be different than the researcher’s definition of preparation. When the students responded to the items on the questionnaire related to preparation, the responses were provided as though students believed they were being asked to give advice on preparation. This resulted in several misinformed responses that did not focus on whether students felt that preparation impacted their decision to take another online course. Although the students did not understand the question in the way that the researcher had intended, the results still provided valuable information to the study. To clarify this miscommunication, the researcher could have provided a clearer definition of “preparation” as well as instructions about to how to accurately respond to this item.

**Recommendations for Further Research**

The results of this study indicate that information about online learning and online pedagogy needs to be continuously updated and developed in order to create a satisfying learning
experience for students. Additional research is needed in order to understand more about best practices, standards, outcomes assessment, and new technology that offers a personalized approach to virtual learning. Technology changes rapidly, and so do the students and the students’ needs, so being able to continually make changes and additions to online learning will help keep up with the changes in student demands. The results of these studies could create a benchmark of what all online students should expect and require when taking online classes. Specifically, the following recommendations for further research should serve as a guide for future inquiry:

First, more information is needed on online tutorials. According to this study, students would not take an online tutorial even if it was offered. There has to be a clearer reason why students feel that tutorials are not helpful. Students may perceive they are a waste of time, or maybe the students feel they do not fully prepare them for the online course, or maybe the student feels prepared on their own to take an online course. Knowing what type of tutorials are available and the helpfulness of the tutorials and what the tutorials offer is valuable information for future online students, especially as technology and online learning course designs change.

Secondly, more in-depth information is needed on faculty preparedness. It is not just the students that need to be prepared, but the online faculty as well. Exploring the level of comfort and knowledge that faculty members have when teaching online could be beneficial for a broader understanding of how to improve the standards of online teaching. This would help in terms of requirements for teachers and teacher training. Increasing the training and requirements before teachers taught classes online could ensure that faculty members are fully prepared to teach online courses and use all the resources provided to do so in an effective manner. Faculty need to be made aware that a successful learning experience in an online learning environment is more
than just posting content and discussion boards. Rather, creating an interactive online learning environment includes connecting with students on a personal level to make the learning more meaningful and applicable.

A third recommendation would be to include a longitudinal cross-sectional design using multi-institutions to increase the sample size and inferential statistics. This would allow for bigger and more specific results using different institutions and different standards in online learning and teaching. This research would be able to include institutions just starting online learning as well as institutions that are considered veterans in the field. Recommendations would be concluded on a yearly basis or a bi-yearly basis, based on changes and additions to the resources and student development.

Lastly, since the results of this study suggest that mature students tend to be more satisfied with learning online, it would be beneficial and effective to replicate this study with students in graduate-level programs. Comparing the results between graduate and undergraduate participants could potentially identify how to prepare students for graduate online learning. For example, undergraduate students had difficulty working in virtual or online groups, but graduate students may have more experience in this since many graduate students work and have already been a part of a virtual group or meeting, given the nature of the global business world. Researchers have argued that institutions of higher education need to align their training of future graduates with the changing business world and provide students with opportunities to learn independently. For example, Nycez and Cohen (2007) found that e-learning is important in building a technologically literate workforce as well as for meeting society’s continuous need for rapid, lifelong learning.
From a marketing standpoint, being able to “prepare” undergraduate students to learn online and function as a diverse and well-rounded graduate in virtual and online settings will help create satisfied learners. This will also help students succeed in an online graduate program, especially if an undergraduate student is attending a college or university that offers graduate programs. Selling a graduate program based on undergraduate experience is a great marketing campaign that will save advertising dollars, since the program will sell itself through positive and satisfied student experiences.
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Appendix A

Online Learning Preparedness and Satisfaction Survey

Participation in this survey is voluntary. Your confidentiality is ensured. Data from this study will be used for research purposes only. Choosing not to complete this survey will not affect your standing with your university, or your final grade in this course, the instructor, or researcher. Do not disclose your identity anywhere on this survey.

Directions. The following survey items refer to some aspects of online learning preparedness. Please indicate the response that best indicates your agreement with each item using the scale below:
SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

Part 1 Inputs:

Before starting my first online course, I felt well prepared to complete the following tasks in my online class.

| 1.1. Manage my time for the online class. | SD | D | N | A | SA |
| 1.2 Upload assignments. | SD | D | N | A | SA |
| 1.3 Use the software necessary to complete this course. | SD | D | N | A | SA |
| 1.4 Turn in all of my assignments on time. | SD | D | N | A | SA |
| 1.5 Express my thoughts and knowledge in the threaded discussions. | SD | D | N | A | SA |
| 1.6 Take an exam or quiz online. | SD | D | N | A | SA |
| 1.7 Contact my instructor if I need assistance. | SD | D | N | A | SA |
| 1.8 Work in groups through virtual means. | SD | D | N | A | SA |

Directions. The following survey items refer to some aspects of online learning preparedness and time. Please indicate the response that best indicates your agreement with each item using the scale below:
SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

Prior to taking an online course were you prepared for the time it took to

| 1.9 The time it took to manage my time for class. | SD | D | N | A | SA |
| 1.10 The time it took to uploaded assignments to a course learning management system. | SD | D | N | A | SA |
| 1.11 The time it took to use the software necessary to complete this course. | SD | D | N | A | SA |
| 1.12 The time it took to turned in my assignments on time. | SD | D | N | A | SA |
1.13 The time it took to express my thoughts and knowledge in the threaded discussions. | SD | D | N | A | SA
---|---|---|---|---|---
1.14 The time it took to take an exam or quiz online. | SD | D | N | A | SA
1.15 The time it took to hear back from your instructor if needed assistance. | SD | D | N | A | SA
1.16 The time it took to work in groups through virtual means. | SD | D | N | A | SA

1.17 What was your high school Grade Point Average (GPA)?

1.18 Did you take an online course in high school? Yes ____ No ____

1.19 Is this your first online course in college? Yes ____ No ____

1.20 Is this an elective or mandatory course? Elective ____ Mandatory ____

1.21 Do you own a computer? Yes ____ No ____

1.22 Do you have internet at home? Yes ____ No ____

1.23 Did you complete an online tutorial before taking this class? Yes ____ No ____
   a. If Yes, was it helpful? Yes ____ No ____ If No, would have taken one if it was offered? Yes ____ No ____

   **Directions:** Fill in your response.

   **Before taking my current online course…**

<table>
<thead>
<tr>
<th>1.24 how many hours did you expect to spend online weekly?</th>
<th>___ hrs/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25 how many hours per week did you expect to spend preparing and completing assignments?</td>
<td>___ hrs/week</td>
</tr>
<tr>
<td>1.26 did you feel you had the necessarily technology skills to take an online course?</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

   **Directions.** The following survey items refer to some aspects of online learning preparedness. Please circle the response that best indicates your agreement with each item using the scale below:
   SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

   **Part 2 Environment:**

   Now that I have completed the majority of my online course, I feel that I would have benefited from greater support or more preparation with the following tasks in my online class.
Directions: Fill in your response.
Now that you have taken this online course...

2.9 how many hours did you spend online weekly? ___ hrs/week
2.10 how many hours per week did you spend preparing and completing assignments? ___ hrs/week
2.11 did you now feel you have the necessarily technology skills to take another online course? Yes / No

Directions: Free Response.

2.12 How do you think your preparedness for taking an online class affects your grade?

2.13 How does your preparedness for taking an online class impact your decision to take another online course in the future?

Directions. The following survey items refer to some aspects of interaction and basic characteristics with online learning. Please indicate the response that best indicates your agreement with each item using the scale below:
SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree

Part 3 Outputs:
Among the following characteristics of online courses, indicate your satisfaction level with the following characteristics.
Part 4 General

Directions: Please select or fill in the correct response.

4.1 What is your age?_________

4.2 Hometown rural or suburban or urban?_______

4.3 Are you living: On Campus______ Off Campus_______

4.4 Indicate which Institution you are currently attending University of Findlay_____ Lourdes College___________ Tiffin University_______________

With this letter I would like to invite you to participate in a research study on student preparedness and satisfaction in online learning. The study surveys undergraduate students taking an online course during the Spring 2013 semester. The study aims to understand how preparedness affects student satisfaction in an online learning environment.

The survey will require approximately 10-12 minutes of your time. If you have already completed this survey please disregard.

There is no compensation for nor is there any known risk. In order to ensure that all information will remain confidential and anonymous, please do not include your name. Completion of the electronic questionnaire will indicate your willingness to participate in this study.

If you choose to participate in this study, please answer all questions as honestly as possible. This study has been approved by the University of Toledo, Lourdes College, Tiffin University, and the University of Findlay. If you have questions regarding the survey please feel free to contact me at, 419-448-3440.

Thank you for taking the time to contribute to this important study.
Appendix B

Alignment of the Research Questions and Alexander Astin’s I-E-O Model

<table>
<thead>
<tr>
<th>Input</th>
<th>Environment</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RQ1:</strong> What is the relationship, if any, between students’ perceived levels of preparedness and their actual preparedness after completing an online course?</td>
<td><strong>RQ 3:</strong> What relationship, if any, exists between (a) environmental variables and online satisfaction and preparation levels?</td>
<td><strong>RQ 2:</strong> What relationship, if any, exists between (a) student characteristics and (b) online satisfaction and preparation levels?</td>
</tr>
</tbody>
</table>
Appendix C

Institutional Data

<table>
<thead>
<tr>
<th>Institution</th>
<th>Enrollment</th>
<th>Tuition</th>
<th>%Male</th>
<th>%Female</th>
<th>Student/Faculty Ratio</th>
<th>% Selectivity</th>
<th>Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2,208</td>
<td>$16,950</td>
<td>24%</td>
<td>76%</td>
<td>12:1</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>5,663</td>
<td>$19,890</td>
<td>38%</td>
<td>62%</td>
<td>21:1</td>
<td>51%</td>
<td></td>
</tr>
</tbody>
</table>

Institution A consent: Hello, Dr. [REDACTED] forwarded your email to me requesting assistance with your upcoming research. We would be happy to help you in conducting your research. I spoke with our IRB representative and there are a few stipulations. You will need to complete our institution's IRB application. I have listed a link below for your review. Also you will not be able to contact our students directly. If you create an email describing the research and a link to the survey we can share it with the faculty that are teaching the courses, who will then pass on to their students. We look forward to helping you with your research! If you have any other requests or questions, please feel free to contact me directly.

Institution B consent: We are more than pleased that you will use [REDACTED] as an institution for your PhD research. Let me know if there is anything else we can do to help. I look forward to the results.
### Appendix D

**Text Responses to Qualitative Item 16**

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a professor who is proficient to understand different students' needs and culturally competent.</td>
</tr>
<tr>
<td>Prepare more effective lectures</td>
</tr>
<tr>
<td>I do not see that there is any change needed for online classes. If there was one thing i would add would be to make clear when the post and discussions are due over the weekend or before he following class</td>
</tr>
<tr>
<td>I'm not sure. My issue is the distance. Perhaps make it so that the teacher is more available. For me, if I don't have a connection with the teacher (ie I don't know who he/she is) then I am less likely to turn in my stuff online, or do the homework to the best of my ability.</td>
</tr>
<tr>
<td>Nothing. Everything is great.</td>
</tr>
<tr>
<td>The professors are the ones who make the experience rewarding and fulfilling. Professors who greet the class the week before classes start with the syllabus help the students prepare for the week ahead!</td>
</tr>
<tr>
<td>More friendly interface.</td>
</tr>
<tr>
<td>They could make sure that professors are more readily available to respond to students when teaching with an online platform.</td>
</tr>
<tr>
<td>videos or audios for non-visual learners would be helpful.</td>
</tr>
<tr>
<td>Make it easier to submit assignments.</td>
</tr>
<tr>
<td>Switch to Blackboard</td>
</tr>
<tr>
<td>nothing more</td>
</tr>
<tr>
<td>Even though I took the tutorial and my advisor walked me through it I was still extremely confused my first day the class opened. I had to pretty much play with the site to figure out how to get where I needed to. I think make the site easier to navigate would be helpful.</td>
</tr>
<tr>
<td>Make the professor more accessible. The only way I can contact my professor is by email and I usually don't get a response for 2 or 3 days.</td>
</tr>
<tr>
<td>Save the really complex course work for seated classes.</td>
</tr>
<tr>
<td>N/a</td>
</tr>
<tr>
<td>The instructor could set up a time to be available via chat if a student was having problems completing an assignment.</td>
</tr>
<tr>
<td>I took some on line classes that offered LIVE on line lectures at various times during the class week. I found the LIVE interaction very useful.</td>
</tr>
<tr>
<td>Add more online classes to decrease their rarity</td>
</tr>
</tbody>
</table>
I think there are online instructors who over compensate in the required assignments. Also, online is supposed to be an alternative to those who can't commit to a set class time on campus, so required group discussions at set times presents the same issues.

I think that a live discussion with the class via chat could be beneficial. One of my friends had this once a week in her online class at another college. Another thing that would be nice is a promoted forum section for questions by students that could be answered by the instructor and maybe also the students.

Have the instructors describe directions ore clearly. More detailed.

Have more coursed online.

everything

NA

Train instructors how to properly respond to emails. Many times at higher levels instructors are poor at responding to email questions.

Reduce group projects, interaction between professor and students should occur more frequently.

elective classes only?

NA

I actually think the online class setup is a great program and enables students to access information easily in order to optimize learning.

Institution can take an proactive approach to inform student or prepare students what their getting themselves into.

Provide better tutorials for the new moodle platform

Make contact with professors easier.

In certain courses make software available in order to do the problems out of the book. A good example would be accounting.

I believe that the online courses are very good and there is not much that could be changed. If we need help with getting online or with the software, the help tech office has been there to help me with the problems that have come up. I enjoyed my courses and the fact that I can do them on my own pace, but making my time limit and being able to relax at home and get my courses finished.

webcam recordings of live sessions

I think that the courses are set up wonderfully.

The general instructions (e.g., assignments or navigation) for most courses are inadequate for the purposes. Additionally, they are presumptuous in nature, whereas they appear to assume that the student either automatically agrees with their position or understands the final product in focus. This is an extremely dangerous approach to take. Instead, they must be explicit, so as to give an online student the chance to understand the rules and perform his or her best. I have taken 33
1. courses online now, and, consequently, know that this is a persistent problem

2. Sometimes the class didn't quite reflect properly with the assigned book. The instructors need to properly review the course and the book in order to minimize confusion.

3. I would like an option of an open discussion such as IMing on the class topics so that we have immediate responses as we would in a seated class.

4. Examples and instructions for assignments utilizing software (Word, Excel) need to be in a current version. Often, I find that the course instructions (information provided in Doc Sharing) is outdated.

5. Not sure.

6. Give the students more time than having to have a discussion board answer by Wednesday. It takes more time than that to read through everything, especially if you have more than one class.

7. Nothing I am very happy and pleased with the set up and navigation

8. Personally post a response to my other classmates is waste of time. I rarely read the response and/or answers to my post. In my opinion its pointless.

9. NA

10. Have professors go through the course and become acquainted with the homework assignments. Throughout my experience with online courses, it seems that professors have little to no idea what each week's assignments are like until the student asks a question about it, and the professor has to go in and look at it.

11. Remove the group project requirement from some classes because it is hard to meet with group members and complete assignments without causing stress.

12. Require teacher to review the classes daily, often times you have questions that are not answered for some time and we only have limited time to complete the assignments.

13. great the way it is!

14. Before a student takes his/her first online class, the University needs to explain better how much time is actually required per week for each class. I take degree completion classes which are seven weeks long per class instead of the traditional fifteen weeks. The pace of these classes is quite fast. It had been fifteen years since I was in school, so the first couple weeks for me were very stressful. I initially thought that I would never be able to get assignments done in time, but after a few weeks I began to get the hang of it.

15. More variety in the types of activities and assignments. Multiple learning styles should be addressed. Less essays, discussion posts, and multiple choice tests. I would like to see more interactive modules, videos, and diverse modes of assessment in online courses.

16. Make it easier to get in contact with adjunct professors about assignments for online classes

17. I think every professor should keep up with grades, and assignments online because that is incentive for students to get their work in. If they get the reward of being able to see their progress during the entire semester it will be easier for them to adjust.
I believe that just making professors more open to help and having an easier way to contact them, maybe some kind of web chat.

Easier ways to find your research.

Make the sites organized and easily understood.

I would like to see the threaded discussion question automatically populate in the response area for reference purposes if at all possible.

I feel as though the online course environment runs smoothly.

easy access

Occasional videos from the professor are very beneficial as well as forums.

I like videos. My professor for my current online class posts lecture videos of himself and I find it helpful and also much more personal. We do our forums in text form only, but I think it might be interesting to do a forum by posting a video of ourselves speaking. This could also be another form of developing our presentation skills.

I like the split classes for a semester.

Add more interactive assignments for the course to add more variety - not only using discussion boards.

Try and make it more interactive. Online courses lend themselves to being rather dull, and a have a much more cold and distant feeling to them. I think its a foreign feeling for people to be working with others that they have never seen face to face, and only know a name. If you could somehow integrate face to face software (like skype) for discussion (most people do have some form of webcam, but I suppose you could make it a voluntary thing with additive bonus to ensure class participation) I think that would alleviate some of the negative feelings toward online learning, you could even just have the professor lecture over the webcam with the students watching, so you at least have a face to go with the class.

Sakai is friendly. Maybe internet access for people who do not have it.

Meet at certain times during the semester. beginning, middle of semester and end of the year.

Not have this specific class online. It would have been much more beneficial in person for the material being presented.

have more interactive components such as discussions.

I think video segments of the teacher teaching would be very helpful. I prefer to learn by listening and watching, rather than reading random assignments that are online.

I would like to see the next class is the session available to review syllabus etc prior to the start date.
## Text Responses to Qualitative Item 17

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>If I would have known how withdrawn I would have been from other people, I may not have recommended myself to take an online course.</td>
</tr>
<tr>
<td>My entire degree is done online. It is essential to be prepared every week and manage time wisely.</td>
</tr>
<tr>
<td>it will not make difference</td>
</tr>
<tr>
<td>I hate taking online courses. Unfortunately that is the only way to make it work with my schedule. If I could I would never take an online course again.</td>
</tr>
<tr>
<td>It reassures me that everything will be fine and online classes are great.</td>
</tr>
<tr>
<td>I was prepared before I started and now that I have several classes under my belt, I feel that it is the only way to go for a full time employed student.</td>
</tr>
<tr>
<td>By being prepared, I was ready to interact in the online environment. Prepared me for future online courses.</td>
</tr>
<tr>
<td>I probably will. It is a satisfactory experience, and I am able to participate in my own time.</td>
</tr>
<tr>
<td>Determines if I will learn information better online or in classroom.</td>
</tr>
<tr>
<td>Probably won't</td>
</tr>
<tr>
<td>a great deal</td>
</tr>
<tr>
<td>Well I am enrolled in online school so I have to but if that would have been the only class it probably would have been the only online class.</td>
</tr>
<tr>
<td>If you are comfortable with the technology required to take an online class then you'll feel comfortable enough to take an online class again.</td>
</tr>
<tr>
<td>I won't take another online course if I can help it because I spent all of my time trying to catch up on work instead of actually learning.</td>
</tr>
<tr>
<td>All Of My Courses Are Online</td>
</tr>
<tr>
<td>It shows that I am willing and able to learn upon my own free time. It shows my dedication to receiving a higher education.</td>
</tr>
<tr>
<td>I enrolled in the Tiffin University Online MBA program 2.5 years ago. As with any class, traditional or online, the professor is the strong influencer as if the class will be valuable. I will continue to take courses online in the future.</td>
</tr>
<tr>
<td>I am always prepared to take an online course</td>
</tr>
<tr>
<td>I love online learning but I do have instructors I will not take further classes with.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>It makes me feel as though I could take another online course if I wanted/needed to.</td>
</tr>
<tr>
<td>I would love to take another online class if they offered one.</td>
</tr>
<tr>
<td>it doesn't</td>
</tr>
<tr>
<td>Fair</td>
</tr>
<tr>
<td>I am in the online MBA program. There is not much of a choice unless I travel 2+ hours each way to take seated classes.</td>
</tr>
<tr>
<td>will NEVER take an online class through TU again</td>
</tr>
<tr>
<td>I would certainly take additional online courses.</td>
</tr>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>After this first semester of grad school, I will be continuing to take more graduate classes online, as a job does not make it easy to make it to seated classes.</td>
</tr>
<tr>
<td>For me personally being prepared is half the battle. I think institutions should explain how in depth is this course taking you, what will be required from you as far as the work load. The purpose of online courses is the convenience but should not be treated as if you were in a seated class.</td>
</tr>
<tr>
<td>I am seriously debating continuing with online courses, as I feel they are not as informative as the campus atmosphere.</td>
</tr>
<tr>
<td>It doesn't. The only thing that has impacted my decision is my availability.</td>
</tr>
<tr>
<td>For me online courses work better because of my work schedule. I have no issues at all in doing online courses. I would do an online course before I do a seated course any day of the week.</td>
</tr>
<tr>
<td>I have enjoyed my courses online and will take online classes again in the future. I can do the course work at my pace and can take the extra time to understand what I am doing in the class. Having my books and items I need at my fingertips make it all the better.</td>
</tr>
<tr>
<td>It was the deciding factor to be honest.</td>
</tr>
<tr>
<td>I thought online classes were great. They were easy to follow and it is my preferred method of taking classes.</td>
</tr>
<tr>
<td>I felt like I was fully prepared and intend to take more.</td>
</tr>
<tr>
<td>This has nothing to do with taking future classes online. I took online classes as means to an end, which will be over shortly in June 2013, when my Bachelor's Degree in Justice Administration work is complete.</td>
</tr>
<tr>
<td>It makes everything easier</td>
</tr>
<tr>
<td>I am doing everything online</td>
</tr>
<tr>
<td>My preparedness for taking an online class heavily impacts my decision to take another online</td>
</tr>
</tbody>
</table>
course. I plan on completing my BBA entirely online.

Will take them in the future to finish my degree.

It is more about the ability. It works with my schedule more.

Will continue to take online classes

It gives me the flexibility to pursue my education while meeting the demands of a employee, mother, wife etc....

It impacts my entire decision to take classes. I work a full 40+ hours each week and am unable to attend traditional classes. I find the ease, accountability, and flexibility with online classes perfect for my schedule and my needs. This is my education, after all, the classes should fit to my needs, not vice versa.

I am accustomed to the layout of the site and what kind of work is expected, so I would feel comfortable taking more online courses.

It takes much of the anxiety out of it.

I like online courses because with the hours I work, I do not have the time to sit in a classroom at a scheduled time.

I am very willing to take online courses.

I have no problems using computer software.

definitely will take another course

I've never felt unprepared for an online class.

I find online classes easier to follow in terms of structure and preparedness for the whole semester and I would prefer to take online classes over seated classes. It is easier to know what assignments are due and when and keep track of work. Also it makes it easier to do work ahead of time.

Personally i am not a fan of online classes just because i would rather be in the classroom, i am a visual learner as well as a good listener.

I believe that I am prepared and ready to take any online course that I need to in the future.

Good. It allows me to get my feet a little wet, to see how my next online course could be like.

In a positive way, I plan on taking summer online courses

I find it relaxing and I am never under pressure because I can work at my own pace be it faster or slower at the moment I'm in. I feel that you put a greater effort into the class participation because you have a structured environment.

I will take more of them in the future

I rather learn in a classroom than take an online class.

it does not.
I would take more. I would also prefer to have on-campus classes too.

I have loved all the online classes I have taken so far and would definitely take another one. I am signed up for one more before I graduate. One class in particular, microeconomics, I felt I learned more thoroughly online than I would have in a traditional class. The concurrent use of Connect, where we did our homework and exams on was very helpful and offered additional resources.

I would take an online class again. I still like seated classes better.

I have taken all but three courses online at Owens. and Tiffin

It effects me a lot when I decide whether or not to take an online class. Most likely, I would be willing to take an online class in the future.

I would say greatly. Some people are not very computer literate, and so for them I'm sure its quite intimidating to take an online course, and that alone could persuade them not to.

if students don't have a computer or internet it would be difficult

I would take an online course again as long as my professor was as prepared as my last one.

I don't think I would take another internet course. It was a lot of work.

I do not like them. I only take them when needed.

I will not take an online class again. I like face to face classes better. I was prepared just did no not like not being in the actual classroom.

I took my bachelors degree online and felt well prepared to take this class online. I knew the expectation of responibility and staying on top of assignments which helped me decide to take another one now.

I really prefer not to take another online class. The courses at Lourdes (in person) are much more effective.

This fits perfectly with my schedule allowing me the convenience to work early, late, weekends and to work at my own pace versus waiting for a class member to catch up and get on board with assignments and discussions