Analysis of Readiness of the Online Learner at Chippewa Valley Technical College

by

Mary J. Felton-Kolstad

A Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Master of Science Degree
in

Career and Technical Education

Approved: 2 Semester Credits

Julie Taylor
Research Advisor

The Graduate School

University of Wisconsin-Stout

May, 2009

The Graduate School
University of Wisconsin-Stout
Menomonie, WI

Author: **Felton-Kolstad, Mary J.**

Title: ***Analysis of Readiness of the Online Learner at Chippewa Valley Technical College***

Graduate Degree/ Major: MS Career and Technical Education

Research Adviser: **Julianne Hastings-Taylor, PhD**

Month/Year: **May, 2009**

Number of Pages: **85**

Style Manual Used: **American Psychological Association, 5th edition**

ABSTRACT

The online frontier has been explored and implemented, with unprecedented growth in enrollment to 300 percent at Chippewa Valley Technical College since 2003. Concerns in retention and attrition issues have been a priority for CVTC and the online learner. The purpose of this comprehensive literature review is to explore and evaluate if the learner is ready for online learning and if this readiness plays a role in student retention. A discussion will follow of the history of online learning along with considerations of what preparation may be necessary to the success completion of online courses. The author will review the effects of preparedness to online learning and its strengths and weaknesses in the post secondary environment. The author will follow the literature review with discussion of the findings and offer practical recommendations for consideration for preparing the learner for the online environment.

The Graduate School

University of Wisconsin-Stout

Menomonie, WI

Acknowledgements

My journey is not finished nor is my quest for knowledge. However, completing my Master's is one more step towards my personal growth. I could not have done this without the support of my dear, wonderful husband, Michael, who encouraged me to return to college. His understanding, his willingness to manage at times without me, and be there through the trials and tribulations, is amazing. Second I would like to thank my daughter, Erin, who at times needed me and had to do without but, has managed to grow and value education through the example of those around her. In addition, there are my wonderful colleagues at CVTC who have nurtured, guided, and believed in me every step of the way—thank you from the bottom of my heart.

TABLE OF CONTENTS

List of Tables

Chapter I: Introduction

Background Information

The Internet—the highway of information developed in the 1980s along with the advent of the personal computer—grows stronger and more widespread with each new application of the student's use of technology (Banks, 2007). The Internet has progressed from lifting the restrictions of the commercial uses in 1991 to use as an educational tool in the classroom, with a total of 100 million Web sites in 2006 (Banks, 2007). The growth of the Internet has affected educational opportunities, with one positive application being online learning (Banks, 2007). The skills needed by teachers and students to use the growing amount of Internet resources successfully must be more sophisticated than ever. Students in online courses require skills in navigating the course, understanding, and communicating. Colleges can help students master the needed skills by providing effective student orientation to the online environment. The challenge to educators lies in "balancing the need to impart technical information and verify technical proficiency while nurturing and encouraging the learner" (Bruso, 2001, p. 9).

Students taking college classes or enrolling in Internet courses come from a wide range of backgrounds, ages, skills, and knowledge. "The fresh-faced stereotypical student is not an accurate picture anymore. Mothers, fathers, and grandparents are now common at two-year college campuses across the United States" according to an interview with the former president of the Chippewa Valley Technical College, Dr. William Ihlenfeldt (*Leader Telegram,* 2007, p. 7E). "They are here to make midlife career changes, whether by chance or by choice."

In Wisconsin's technical colleges more than half of all adults in the state have accessed the technical colleges for education and training over the last decade. According to the Wisconsin Technical College System (WTCS), more than two million adults, or 51 percent of all

individuals 18 or older, have taken courses at the colleges from 1995 through 2004 (WTCS, 2007).

The Wisconsin Technical College System has 16 technical college districts throughout Wisconsin, which offer more than 300 programs awarding two-year associate degrees, one- and two-year technical diplomas, and short-term technical certificates. In addition, the WTCS is the major provider of customized training and technical assistance to Wisconsin's business and industry community. Nearly a half million individuals are educated by Wisconsin's Technical College each year. The Wisconsin Technical College System web site shows the variety of alternate delivery methods that were developed and implemented to better meet the diverse needs of its students (http://www.witechcolleges.org).

The number of students enrolled nationally in online courses has increased tremendously over the last five years (Allen & Seaman, 2007). Allen and Seaman (2007) noted that nationally, nearly 3.2 million post secondary students took at least one online course during the fall 2005 academic term, a substantial 35 percent increase over the 2.3 million people who reported doing so the previous year. Allen and Seaman also reported that the students in 11 Midwestern states represented about 10.7 percent of online enrollments in the nation, with more than 460,000 students taking at least one online course in the fall of 2005. This national trend is also proving to be a popular educational alternative in Wisconsin. Wisconsin technical colleges began offering online courses in 2002. Current statistics show that statewide 31,296 students enrolled in a total of 3,500 classes offered online in 2006 (WTCS, n.d.).

Although many students have successfully taken online courses, critics of online education point to the higher dropout rates reported in all online courses nationwide as a measure of poor course quality. In fact, online course retention is reported to be approximately 50 percent

of those enrolled nationwide (Long, 2003). This 50 percent could be due to a myriad of reasons from dropping the course, disappearing and non-completion, etc. Chippewa Valley Technical College has fewer retention problems, with online retention at 77 percent in online courses compared to the national average (CVTC, 2007).

To strengthen and improve the success rate of online learners, Roger Stanford, CVTC Title III Director, indicates that online retention is a key goal established by the college (R. Stanford, personal communication, May 25, 2007). Chippewa Valley Technical College's Title III grant will fund initiatives directly relating to identifying ways to increase online retention and then to implement those strategies. Having an effective pre-assessment tool to measure skill levels will be important to the college's efforts in this area. A pre-assessment tool will collect the data needed to analyze student readiness for online learning. Research has shown the importance of readiness for success of the online learners (Palloff & Pratt, 2003).

An investment of time and money and a strong retention rate are components of solving enrollment concerns of both administration and faculty for the online student. Students' reasons for dropping online courses include the design of the Internet course, realization that online learning is not for them, being new to online learning, technical difficulties, and learning and physical disabilities (Palloff & Pratt, 2003). Chippewa Valley Technical College in the Spring semester of 2008, piloted an Orientation Module through the Title III Grant to help ensure that students who enroll in online classes are ready to commit to them and thus increase retention. Within the Wisconsin Technical College System, little data exists regarding retention rates of the unprepared first-time online student, so this pilot project will provide the opportunity to collect information about readiness of the online learner.

The CVTC district serves the following 11 counties: Eau Claire, Chippewa, Dunn, Pierce, Trempealeau, Taylor, Clark, St. Croix, Jackson, Buffalo, and Pepin. The college has three campus sites in Eau Claire; with additional campuses serving Chippewa Falls, Menomonie, Neillsville, and River Falls for a total of seven campus sites. According to CVTC's Academic Quality Improvement Program Report (AQIP), CVTC offered 51 associate degree and technical diplomas and had 7,795 full-time equivalent (FTE) students enrolled during the academic year 2003-2004.

Continuing education programs for faculty/staff teaching online are facilitated through the Professional Development Department at CVTC. Professional Development emphasizes quality courses through curriculum construction. In 2008, CVTC introduced the Quality Matters (QM)™ Project, which is a continuous improvement model for assuring the quality of online courses through a faculty review process. Staff members follow an intense training and certification process to become peer reviewers of online courses. Through the QM™ process, online courses must meet a set of checks and balances relating to online course design to ensure the courses are ready for delivery to online students. The course content is evaluated for relationships between course competencies, objectives, and assignments. The assignments must relate to the competencies and objectives to ensure good course design and to provide optimum learning. As of May 2009, 12 courses have passed the QM™ (P. Palser, personal communication, May 9, 2009).

The growth of online courses at QM™ is also in response to increasing student demand for "anytime, anywhere" access to education as a pathway to satisfying career goals. Further accelerating the growth of online education at CVTC was one of the directives of from CVTC former President Dr. William Ihlenfeldt, who believes this alternative delivery method will better

meet the needs of the Chippewa Valley. Tracking this growth is an important method for evaluating future retention. This growth currently keeps pace with the demand; however, successful completion of online courses is a key to student retention and learning.

Online students enrolled in the academic year of 2003-2004 totaled 1,515 students. For the academic year of 2006-2007, 4,783 students were enrolled for alternate delivery courses which included Instructional TV and online; this is a 300.16 percent increase (CVTC-Welcome/ n.d.). The growth rate for CVTC online students over 2003 to 2007 is phenomenal. According to Dan Haag, CVTC Course Scheduling Specialist, (personal communication, May 31, 2007), the number of CVTC courses offered online increased from 179 in 2003 to 400 by 2006, representing a 220 percent increase. Several factors have influenced the growth of online courses at CVTC. One factor is the mission statement of the Chippewa Valley Technical College that promises to "deliver superior, progressive technical education which improves the lives of students, meets the workforce needs of the region, and strengthens the larger community" (CVTC/Welcome/Mission June 2007). The strategic goals at CVTC also drive growth. The strategic goals are to increase teaching/learning effectiveness and expand student retention efforts at the college (CVTC, 2007).

Prior to acceptance into a program at CVTC, students must take a college entrance exam. This exam is known as the COMPASS exam. CVTC's Frequently Asked Questions (FAQ) Web page states the college uses COMPASS as a requirement for most associate and a few of the technical degree programs; however, it also states that the scores are typically used by academic advisors for "advisory purposes only" (CVTC, 2007). The web page additionally states that individuals whose scores are too low may not be eligible for some programs, in which case the academic advisor may provide alternate options – such as retesting, taking advantage of CVTC

support services, or remediation. However, no testing or assessment currently is done to measure students' learning needs and readiness for online learning.

Bruso (2001) stated that students often have misconceptions about the characteristics of online classes:

> Many students, even after they have decided to take an online course, lack a clear understanding of what online learning constitutes. Some believe it is based on the correspondence model, where students read the text, prepare an assignment, and submit their work. Others view it as a self-paced, self-prescribed education experience. Still others perceive it as a solitary activity that requires the student to have little or no contact with the instructor or classmates (p. 11).

It is crucial that distance students be aware of course requirements and fully understand what is expected of them. Misconceptions abound and can cause a great deal of confusion and discontent on the part of the learner if they are not dealt with during an orientation process (Long, 2003). A student's readiness for online courses could be established through pre-assessments and/or orientation courses for online learning. The pre-assessment of a student could then determine how well the student was prepared. No data establishing the relationship between the current pre-assessment quiz and student retention has been collected prior to December 2007 at CVTC.

Statement of the Problem

Data extracted from the CVTC Banner System, the college's database software system, indicated the retention rate for students completing an online course with a passing grade. The differential between online and face-to-face retention is 10 percent. In other words, online the retention rate has been 10 percent lower than traditionally delivered classes at CVTC (P. Palser,

personal communication, May 31, 2007). CVTC has recognized that a difference in student retention between online and traditional courses exists and that this gap of 10.2 percent in 2007 must be closed.

Purpose of the Study

The purpose of this investigation was to examine whether a pre-assessment tool used by CVTC for online students is predictive of their achievement in online coursework as measured by course completion and course grade. Data was collected through use of a pre-assessment tool, completion of an online course, and a course grade during the 2008 Spring semester.

Research Objectives

This research will address the following objectives:

1. Identify CVTC students' perceived level of preparedness for online learning.
2. Identify what additional preparation (orientation) students at CVTC need to feel satisfied about their readiness to learn online.
3. Determine if student readiness for online courses contributes to course retention.
4. Analyze differences in student readiness and preparation for online courses based on demographic categories.
5. Determine if student readiness for online course contributes to course success.

Importance of the Study

This study is important for the following reasons:

1. Not all students are prepared for online learning. Students may not be informed about what online learning encompasses. Through the survey questions, students will respond as to their perceived readiness prior to completing an online course.
2. As part of the effort to prepare students for online learning, CVTC is currently

developing a module to help students raise their awareness of the skills and qualities needed to be successful online learners. This module could help students understand what skills are required for successful online learning at CVTC.

3. A Web-based quiz module, called Readiness Assessment, exists within the CVTC Web site and is available for students to access if they choose. Generally, students would complete the quiz prior to taking their first online course. The questions are designed to help students reflect about their readiness and understanding of the expectations of an online class. However, the assessment is not easy to find, and no instructions or directions encourage or motivate the student to access the assessment. If and when students find the pre-assessment quiz, it is not interactive and lacks specificity. A more interactive and specific online pre-course orientation could increase the learners' awareness of online expectations. At this time, no data has been collected to relate the effectiveness of this pre-assessment quiz to the students' success within the online learning environment.
4. Results of this study may be used by CVTC to benefit students by initiating training for students prior to enrolling in online courses.
5. CVTC may also use the results of this study to train faculty for teaching online.

Limitations of the Study

The appropriateness of an online environment for a program or area for a particular student depends on the requirements of the program, the resources available to that program, and the demands in the field. If online delivery is provided in a location with slow Internet connectivity, an online delivery system is inappropriate for the media-intensive items that may be part of the class. Issues of content, item type, item and test scoring, delivery model, delivery

location, and stakeholders, all need to be considered when deciding whether an online environment is appropriate for a program (Williams, Howell, & Hricko, 2006).

The modules developed at CVTC were affected by the following factors that influence and intersect with decisions for the structure of an online orientation tool:

1. An orientation communication module is in the completion stages of development through the Title III Grant. The module is now available for the students to access.
2. Measurement of the effectiveness of the interactive pre-assessment tool has not determined.
3. Identifying a course and course instructor to administer and monitor the study will need to be done. Duplicate courses can have varying numbers of students with varying skill levels. The class may be a program class or an elective, which will determine the motivating factors for students and affect their success.
4. Differences in how the orientation tool is introduced and administered by faculty, along with class size, may be an issue. The limited number of responses caused by some smaller class size may create an imbalance.
5. The pre-assessment may affect the students' expectations of online learning and any preconceived notions the student had regarding what an online class includes.
6. CVTC has not initiated any interactive pre-assessment tool to measure what connections between students and course success exist at this time. It is a general consensus by CVTC faculty that students new to the Internet may not have the skills necessary to navigate the course or the discipline needed for online learning.
7. Time constraints restrict the data collection to one semester. The pre-assessment tool was developed and put in place by the beginning of Spring 2008 semester. This tool

will need to be tested prior to collecting data for the study.

8. Students may not have Internet access or may have slow connectivity for media-intensive items. The pre-assessment tool will be interactive with the use of media software. Rural students or students without access to cable Internet may experience problems downloading and viewing the course materials due to slow connectivity.
9. Restrictions for who can access the data will need to be established. A CVTC team will determine how the data will be used after it is compiled. The length of time required to compile the data could be an issue.

Methodology

This study was designed to determine whether student success can be attributed to the preparedness for online learning and retention. Help services and tutorials are available to students to help navigate through an online course. The study will determine if students utilized currently available Help services and tutorials to help achieve successful completion of Internet courses and, if not, what would have helped in the students' completion or retention of the courses.

Investigative interviews were conducted with other Wisconsin Technical College instructors, and the use of pre-assessment tools to evaluate students' preparedness for online learning were found to be non-existent. The WTCS does not have records comparing the performance of students who have successfully completed online versus face-to-face course delivery. For the purposes of this study, withdrawals from online classes will not be tracked to compare student retention rates. Reasons for withdrawals include factors other than just difficulty with the completion of online courses and will not be addressed.

Definition of Terms

The following terms are defined for clarity for the reader:

Academic Quality Improvement (AQIP) – A program of the Higher Learning Commission of the North Central Association of Colleges and Schools. AQUIP provides a comprehensive examination of CVTC conducted by a trained team composed primarily of higher education peer reviewers (http://cvtcportfolio.project.mnscu.edu).

Alternate Delivery – The method by which a course is taught or delivered to students other than a traditional face-to-face delivery method. A format that consists of 16-week, semester-long courses taught and arranged in a regular pattern in which course sessions alternate between face-to-face instruction and Web-based or includes Internet on a weekly basis (www.cvtc.edu/pages/783.asp).

Banner System – Administrative software used by CVTC for operational functions, such as payroll, finance, registration, course and room scheduling, admissions, student academic history, and financial aid.

COMPASS (COMPASS-Reading) – Measures students' skills in reading, writing, mathematics, and English as a Second Language (ESL). Provides fast, accurate results that assists both students and counselors in making course placement decisions (www.cvtc.edu/pages/198.asp) (www.act.org/compass).

Connectivity – The ability to communicate with something by connecting through another machine, for example, a computer or computer system (www.cvtc.edu/pages/768.asp?q=Connectivity&site=cvtc&client=cvtc&proxystylesheet=cvtc&output=xml_no_dtd).

Online Courses – Instructor-supervised, student-driven units of instruction delivered via the Internet (www.cvtc.edu/pages/111.asp?item=507).

Peer Reviewers – Faculty/Staff certified by Staff Development through instruction and testing to\review online course mechanical structure and content (www.cvtc.edu/pages/211.asp).

Quality Matters ™ – Inter-Institutional Quality Assurance in Online Learning. A continuous improvement model used to assure the quality of online courses through a faculty review process (www.cvtc.edu/pages/211.asp).

Retention – Continued student participation in a learning event to completion such as receiving a grade/credits in a course, which in higher education could be a course, program, institution, or system. (www.cvtc.edu/programs/DeptPages/aquip/improving_student_retention.pdf).

Retention Rates – Percentage of students who complete a course with a passing grade and remain enrolled. This retention rate is obtained from an analysis of data aimed at determining graduation rates, persistence rates and course completion rates (www.cvtc.edu/programs/DeptPages/aquip/improving_student_retention.pdf).

Title III – Grant awarded to CVTC that identified the objective of retaining students in alternative delivery courses at rates equal to the institution's rates for students in traditional courses (http://wise.cvtc.edu/Teams/Grants/Title_3_collaborative_UWRF-CVTC2_Distribution_Copy.pdf).

Traditional Delivery (Format) – The method by which a course is taught or delivered to students as opposed to nontraditional formats of Internet, distance education, accelerated, video, or other alternate delivery methods. Traditional delivery format consists of 16-week, semester-long courses taught face-to-face, meeting on a weekly basis (www.cvtc.edu/pages/778.asp).

Chapter II: Review of Literature

Introduction

The Review of Literature will examine the history of distance education and its evolution. A narrative of the preparedness of online learners, student profiles and expectations, and retention issues will be explained. The goal of the Chippewa Valley Technical College is to improve retention for online learners and data will examine the necessity of creating an effective pre-assessment tool for online learners; this tool was piloted Spring 2008 semester by availability to students through the CVTC Web site starting January 2008.

Influence of Personal Computers on Distance Learning

The format of education has changed over the years. Education has gone from lecture based to distance education. Distance education is defined as "a method of education in which the learner is physically separate from the teacher...it may be used on its own, or in conjunction with other forms of education, including face-to-face" (Schlosser & Anderson, 1994, p. 1). Generally the learners are physically separated from the institutions that sponsor the instruction.

Distance learning commonly comprised a print-based correspondence courses dating back 150 years ago when in 1833 a Swedish newspaper advertised the opportunity through "medium of the Post" (Schlosser & Anderson, 1994, p. 2). From 1833 to 1891 instruction was formalized through mail correspondence by various colleges in Europe and at the same time was promoted in the United States. Courses such as mining safety, English, and more were offered. The first time academic degrees were awarded was 1891 through the completion of required correspondence studies. In the United States, the Chautauqua College of Liberal Arts of New York was the first to award a degree. The practical nature of learning through correspondence led to further research of distance education, its benefits, and the need for better delivery methods

through the invention of new technologies, which may have led to the development of the Internet as we know it today (Schlosser & Anderson, 1994, p. 32).

"Satellite technology, developed in the 1960s and made cost-effective in the 1980s enabled the rapid spread of instructional television" (Schlosser & Anderson, 1994, p. 4). Most people did not have personal computers in their homes or schools until the 1990s. However, with the advent of affordably priced, readily accessible personal computers to provide the communication link between instructor, content, and student, distance learning became online learning. To understand the pathway leading to online education, an overview of the personal computer's use and influence is necessary.

The possibility for communication between computers dates back to the 1950s. Like many information and communication technologies, the Internet of today grew from seeds planted by the United States Government through specifically advanced projects with the National Aeronautics and Space Administration (NASA) from 1950 to 1962. At the same time Paul Baron, a RAND Corporation (Research ANd Development) researcher, was contracted to identify ways to strengthen the nation's telecommunication infrastructure to survive a nuclear attack. One identified way of strengthening telecommunication was the development of packet switching much the same way telephone calls were switched between receivers and senders. Through this method, messages would be broken down into small pieces, or packets, and then reassembled at the delivery point (Federal Communications Commission, 2007).

Universities became a part of this networked communication because access was needed to information from research facilities, and, in the possibility of attack, official data would not be lost. Official data was warehoused in multiple locations via the universities. In 1969, a computer was installed at UCLA, and the Stanford Research Institute was connected to it. Thus began a

communication revolution with the words "log in" (Federal Communications Commission, 2007). This communication revolution tied the personal computer to the educational system at universities around the country.

As is common in the early stages of new technologies, costs were high and services were basic. In the early 1970s information from computers was retrieved by businesses at a cost of as much as $5 per minute (Banks, 2007). Extras that are enjoyed today, such as games, emails, and download, were not offered in the early days of the computer. Computers were only used for data storage and retrieval of information. In addition, computer access time was extremely expensive; the average business would purchase time to retrieve data, track finances, make business projections, and perform general number crunching. At this early development stage, the expenses related to computers prevented the communication technology from being used for widespread business or education applications. With the birth of the Internet, the use of computers just for data crunching began to change. The real Internet, the public Internet used today, is firmly rooted in 1978 (Banks, 2007).

Online Learning Begins

The evolution of online learning has accelerated since the first degrees incorporating this teaching format were awarded in 1960, and online learning is growing in popularity. Technology has also had a tremendous impact on the focus of research. By the early 1990s the academic world was expanding by allowing new companies, known as Internet service providers (ISPs), to connect with federally supported intranets. During the Clinton administration, in 1993, the White House adopted and implemented the High Performance Computing Act. This Act directed the federal government to deploy the Internet, which eventually led to the Telecommunications Act of 1996. It was here that the Internet provided education and research to 30 universities and

subsequently to 300, playing an important role in expanding the Internet to its current format (Roberts, 2006).

Other factors that have contributed to the expansion of the Internet are the changing student population and development of the Web. Because of the tremendous improvement of technology, good online learning environments that host Blackboard, WebCT, and other course management systems are being used successfully. Through technology, students can easily interact with instructors, classmates, and course materials, requiring only a personal computer and the Internet. With the technology becoming less of an impediment to learning, much of the focus has turned to the cognitive aspects of online learning (Darbyshire, 2005).

National Student Demographics

Full-time and Part-time. No longer is post secondary education reserved for those individuals just leaving high school. Many students enrolling in courses are employed full or part time, and are trying to find time to learn outside of their jobs. Students can be working professionals returning to complete their degrees or to retrain for new skills. The WTCS Graduate Follow Up Report (2006) indicates the following reasons students have for attending college: 6 percent personal interests, 38 percent preparation for employment, 18 percent preparation for continuing education, 10 percent improve existing job skills, 22 percent career change and 6 percent other/miscellaneous reasons.

Age. What does the literature say about age? Half of CVTC students are 24 years of age or under. Students range in age from 16 to 68 (CVTC, 2007). Statistics published by the National Center for Education Statistics (2002) indicate that interest and enrollment in online courses span all age groups.

Gender. CVTC's student profile indicates the student population is 43 percent male and 57 percent female (CVTC, 2007). As of December 31, 1999, statistics show that fairly equal numbers of men and women are enrolling at CVTC. According to Stein & Craig (2000), as cited in Albalooshi (2003).

> Gender issues are not in the differences of level or degree of use and no difference in computer knowledge or confidence between the genders. The difference lies in the type of use, entertainment versus communication and research. Online learning environments rely heavily on communications, and any students that loath to check their e-mail or loathe engaging in online chat will be at a disadvantage. It would mean that the male students may need additional work on developing Web communications, especially if course content has a heavy component of email or discussion groups.(p.150).

Race and Cultural Issues. With the exception of American Indians and Alaska natives (of whom only 45 percent enroll), roughly 60 percent of all races enroll in online courses (Palloff & Pratt, 2003). The remote and underserved populations with diverse learning styles and paces are now served by the Internet. By crossing time and space, experience of different languages and cultures are no longer a barrier to student learning. The very idea of bringing the Internet to this population has an effect on how the culture and technology interact (Palloff & Pratt, 2003).

Online Perceptions and Expectations. Online education is growing in popularity as an approach to delivering academic courses. Many researchers have attempted to investigate factors influencing students' acceptance and usage of the Internet, but Tsai (2007) suggests that the perceptions shape students' views and then their behaviors about Internet-based instruction.

On the basis of Tsai's (2007) study, a questionnaire was developed to explore students' Internet, including viewing the Internet use through the 4-T's: as technology, tool, toy, and

guiding tour. The results of the questionnaire indicated that students tended to first perceive the Internet as a tool, and secondly as "technology." Perceptions of the Internet seemed to play a role in their learning preferences. Students with perceptions of technology tended to show interest in technical issues and the learning environment, whereas students with "tool" or "toy" perceptions of the Internet tended to show more interest in the content (e.g., relevance, multiple sources, and challenge). The students with the "tour" perception tend to express better attitudes toward the Internet and thus Internet-based learning.

Myths equate students' perceptions of Internet-based learning with what online learning is and what it requires. The terms "units of instruction" and "delivery via the Internet" may be responsible for some of the myths surrounding online learning. Ross White, Director of Educational Programs of the Learn North Carolina Web site (www.learnnc.org), identified four myths that students or online learners have regarding the Internet and their ability to learn:

(1) Myth #1: Online courses are just online textbooks. Truth: A complete online course goes beyond textbooks with activities, links, audio, video, and animation. Students can interact through email, discussion threads, and group projects.

(2) Myth #2: Online courses will keep students glued to the computer. Truth: A good online course encourages students to think beyond the four walls. Reading books, conducting interviews, or participating in field studies can take learning in a new dimension. It is important that the student stay motivated and manage time well to complete assignments when due.

(3) Myth #3: Online courses are easier than face-to-face courses. Truth: Providing the same educational experience with face-to-face and online courses is not 100 percent possible; however, the online environment expands the educational

experience in ways not always available in the classroom.

(4) Myth #4: Online courses are isolating and lonely. Truth: Because of the digital age, students can have an active presence online through online games, chat rooms, Web pages, Discussion Boards. Students have more opportunities to open up and express themselves on the Web without fear of rejection or humiliation.

Students taking online courses for the first time need to understand the expectations and perceptions of both the instructor and the student. Internet courses are instructor-supervised with student-driven units of instruction. The instructor guides the learning; however, the learning is in the hands of the students, who will need to be self-motivated and independent. In several studies reported by the Commonwealth of Learning (October, 2007) the completion rate is close to 80 percent of online, teacher-directed courses with only 25 percent or less of students completing tutorials. The ability to interact with the instructor, ask questions, and participate can create an environment that leads to completion if the components of both student and instructor are in place.

Wisconsin Demographics. According to the WTCS e-Tech online student survey (2006), the profile of an online student includes the following characteristics:

- "77 percent are female
- 83 percent describe their skills at using a computer as very good or excellent
- 70 percent of students who ask for course information from the e-Tech College Web site eventually register for the course
- 34 percent are 36 years old or older
- 85 percent use a home computer
- 92 percent reported that their computer crashed fewer than three times during the

semester's course

- 60 percent have DSL or cable modem connections speed
- 52 percent live within 20 minutes of a Wisconsin Technical College campus
- 58 percent work outside the home 30 or more hours per week
- 71 percent are pursuing associate degrees." (p. 3)

At CVTC, 1190 students enrolled in online courses in 2004. May 2007 enrollment in online classes grew to 2182, which has doubled over the course of less than three years (P. Palser, personal communication, May 31, 2007). According to Dan Haag, Course Scheduling Specialist, (personal communication, May 31, 3007, Banner System), the number of courses offered online from 2003 to Spring 2006 went from 179 to 400 courses, which represented a 220 percent increase.

The drive to better provide the flexibility for students and to reach greater numbers outside of the traditional classroom is through offering online programming. Currently CVTC offers 170 online courses with 12 programs completely offered online.

Online Expectations

The focus of education and learning has been affected by students' economic pressures, and the rapid push for the expansion of distance learning courses and programs has changed. Students are no longer "blank slates"; rather, new students interact with one another, the instructor, and their environment to create knowledge and meaning (Palloff & Pratt, 2003).

Institutions expect their teachers to understand the content of online courses and at the same time understand the technology used to create and administer the courses. In this new millennium, training is given to faculty to help them feel comfortable with the software used for the course. Training is not, however, enough. Delivering a course effectively takes instruction

about the differences between the traditional classroom and the online classroom and about how to build an online learning community that meets the diverse needs of the students. With the increase in the student population, there is a need for an increased amount of student proficiency with technology. Navigating online and having compatible hardware and software may come easily for some students, yet others may have a deficiency in using and understanding technology. If students are to succeed academically, helping close the technology gap is essential (Bruso, 2001).

Just as faculty needs training to successfully create an online course, so do students to successfully complete the class. As stated by Palloff and Pratt (2003), students need more than the skills to navigate the software, they also need the ability to learn what is expected of them in the online classroom. Helping students gain this ability is an orientation program that includes sufficient practice and application. Through an orientation program, students can update computer skills, familiarize themselves with the online course environment, or just learn how to make the most of their online experience. Knowing what to expect is the first step in opening the door to successful learning. In addition, students often need help with time management and motivation when taking online classes (Bruso, 2001).

Institutions are beginning to look at preparing online learners as part of the successful learning process, whether through orientation or other initial programming courses. (Bozarth, Chapman & LaMonica, 2004; Lynch, 2003). Faculty have reported that many students have been unprepared to use Web-based technology and unprepared to communicate effectively via electronic means (e-Learning Circle minutes, 2007).

Capella University, located in Minneapolis, Minnesota, offers online degrees only. No traditional classes are offered. Ann Kiefer, business instructor at Capella, states the college offers

a "First Course" that has been developed to get students academically ready for their online education experience. This course also helps develop a learning community at Capella. Students are required to pay for the course and earn the credit (A. Kiefer, personal communication, July 17, 2007).

Retention

Retention is worth studying as an important factor in education. Phipps and Meroisotis (as cited in Palloff & Pratt, 2003) note that a component that is consistently overlooked with the planning and delivery of Internet courses is the student. Educational institutions are attracting students to online programs but are not implementing plans and policies to retain them once they are enrolled. According to Phipps and Meroisotis, research regarding the impact of increased enrollment does not show that more students will complete courses and stay enrolled in online programs but rather the completion rate is lower than on-campus courses. Phipps and Meroisotis stated "there is no research yet to help institutions understand why online students drop out more frequently" (p. 4). Reasons for this phenomenon can relate to the demographics of the students enrolled. For older, working adults, family obligations or changing life situations may interfere with the ability to complete courses (Palloff & Pratt, 2003).

Retention is the percentage of students who complete a course with a passing grade and remain enrolled until the end of the semester. Chippewa Valley Technical College's measurement of retention is a final grade of D- or higher for all programs but health program courses (CVTC, 2009). The health program requires a C or higher to remain enrolled in any of the health programs. If students withdraw from a class within the first two weeks, they are not counted as a drop nor does the withdrawal count as a negative on their transcripts. Retention is measured at the course completion rate per term, not per school year.

Traditionally, campuses have been faculty-centered in that the faculty design, plan, implement, and monitor what program courses are offered. Distance education has brought about new challenges because the online learning/teaching is more than just delivering a course efficiently but also includes the effectiveness of the course and instructor who is delivering the course. By developing a relationship between the course material, the students, and the instructor, students become more engaged with the learning and feel connected through interaction.

The online environment needs to be learner-focused as stated by Juli Hastings-Taylor in the September 2007 Issue of *Techniques Magazine*: "research shows that activities must facilitate collaboration as well as a sense of connection and membership among participants" (p. 24). Hastings-Taylor further states: "Because technology itself does not promote interaction, human interactions in online environments must be shaped and nurtured...to ensure learner success." The needs and objectives for the online student are much different and have changed from the traditionally taught student. Keeping students engaged in their learning, and providing accommodations for the learning styles and support for successful learning online is another piece of retention.

Adult Learner

Enrolling in Internet courses or distance education appeals to adult learners because it is arranged around their everyday lives. At the same time, the adult learner has different learning needs and different reasons for learning than do children (Green, 1998). This reason for learning, known as the theory of adult learning or andragogy, (Knowles, 1998) was developed to explain why adult learning is different. Andragogy (adult learning theory) has six principles. First, adults need to know why they are learning something. Second, adults are self-directed learners,

meaning they take control of how they learn. Third, prior learning affects what is to be learned. Fourth, adults need to be ready to learn. Fifth, adults prefer a problem-solving approach to learning, Adults learn best when the knowledge is presented in a real-life setting. And finally, for adults to be motivated to learn, the new knowledge must help them solve problems they perceive as important (Knowles, Holton, & Wansons, 1998).

Much of the research done on successful students in distance education programs suggests that students who are attracted to this form of education share certain characteristics. They are voluntarily seeking further education, are motivated, have higher expectations, and are more self-disciplined (Palloff & Pratt, 2003). They tend to be older than the average student and to have a more serious attitude toward their courses, education, and learning. The estimate of the number of 18- to 22-year-olds attending college full-time and living on campus is only one-fourth of the undergraduate population. Most students today are older, are working, and need more flexible schedules. They are not necessarily looking for campus-based education and social opportunities. Consequently, they bring with them a different set of assets and expectations to the learning process (Palloff & Pratt, 2003). Because the opportunities for face-to-face learning are not the only choice, the learning process is now the responsibility of the student.

Palloff and Pratt (2003) stress the importance of teaching the student to learn. Many students are unaware of the demands that will be placed on them. Because online learning is less structured and requires more input from students to make a successful online experience, the expectations need to be clear from the beginning. Having access to online learning could include accommodating the learners' needs for convenience, providing flexibility because of the demands of work and family, or addressing the students' preference for small classroom situations.

Some institutions are creating online courses to teach students about online learning and some are mandating completion of an online introduction class. Others are incorporating mandatory face-to-face orientations. Either way, these options allow students to be are able to experience this kind of learning before they take the actual course. Regardless of the approach, educators cannot assume that learners will automatically understand the new approach to teaching and learning that the online classroom requires (Palloff & Pratt, 2003).

Lynch (2003) designed an online orientation to provide tools for independent self-directed learning in a Web-based learning environment. This orientation was recommended for students new to online learning, and it was recommended that a faculty development/orientation be developed as well. The goal of the research was to give students a satisfying experience in self-directed learning where they could develop technological competence and gain confidence in their ability to be successful, independent learners. The outcome of the students' learning is important to the researcher because without completion of a course, success cannot be measured.

Retaining students in the online environment, as in the classroom, is important. Studies by Carr (as cited in Palloff & Pratt, 2003) indicate that the very elements that draw students to online classes—convenience in a busy work schedule, ability to continue to attend to family demands—are the elements that interfere with their ability to remain enrolled. Palloff and Pratt (2003) state that if educators focus on the learner, the quality of online courses will improve; students will be more satisfied with the results and more likely to stay in the course.

An issue then is focusing on the learning environment, the student's readiness in the online environment, and recommendations for additional preparation. The Self-Directed Learning Readiness Scale (SDLRS) was developed by Guglielmina in 1977 to assess students' learning preference. Reliability of this instrument has been proven over the last 25 years

through data relating to success of the online learner through completion of courses. A new assessment, the Distance Learning Readiness Assessment (DLRA), targets the technical and self-directed components for readiness of e-learning (Guglielmino, & Guglielmino, 2003).

When students are satisfied with their online courses, they are more likely to be successful and stick with them. The National Center for Education Statistics (2002) reports that undergraduates who participated in distance learning courses were more satisfied with those courses over face-to-face options 22.7 percent of the time. Satisfaction with the entire learning experience often begins with preparing the learners for the online environment. Even with such a low number for satisfaction, enrollments in online courses continue to rise.

Success in an online course requires more than using a computer and having a high-speed connection. According to Palloff and Pratt (2003), research has shown that successful online students possess various personal traits that prepare them for the requirements of learning and completing a course in this format:

- Willingness to share personal details about their lives, work, and other educational experiences. Students need to use their experiences to be able to apply their learning to their life experiences.
- Ability to learn with the absence of auditory or visual cues. Expressing themselves through text-based means with good writing skills serves as good communication and participation in online courses.
- Self-motivation and self-disciplined. With online freedom and flexibility comes responsibility to communicate with the instructor and others in the class.
- Willingness to commit a significant amount of time to their studies weekly. Everyone receives a benefit through working towards his/her learning goals.

- Critical thinking. The instructor acts as a facilitator, and the student must take charge of the learning process.
- Ability to reflect on the learning and recognize that through various activities, his/her knowledge base and ability to reflect is increased.
- Finally—the belief that high-quality learning can happen anywhere and anytime, not just in the face-to-face classroom (p. 6–8).

The instructor has a role in developing these characteristics through various instructional techniques within the online course management system. In addition, a well-designed course is important to foster the students' learning growth and online environment. Instructors help students understand their important role in the learning process. Dewey (1938) developed the theory that the main purpose of education is to improve the reasoning process as applied to solving problems. Knowledge builds around the process of discovery and is dynamic.

Preparation – Orientation

Research has shown that educational institutions are adopting an online approach to teaching and learning; however, little attention has been given to the prerequisite personal and technical qualities required for academic achievement and satisfaction within this environment (Pillay, Irving, & Tones, 2007). Online learning presents a need to assess student readiness. Researchers have been exploring the design, development and testing of diagnostic tools to assess readiness (2007).

Concern for the demand for online programming and the possibility of future shortages of trained instructional professionals prompted Peter Dirr, cited in the Distance Education Report, (Lorenzetti, 2005) an expert in educational Communications, to collaborate with the "Fund for Improvement of Post-Secondary Education" (FIPSE). Dirr examined online programming and

challenges of training needed to deliver online courses effectively. In the course of this evaluation, Dirr's findings resulted in seven lessons regarding online learning:

"Lesson 1: Assess Student Fitness for Online courses." Dirr states that "Not all students are equipped to take online courses." Online education has become very fast paced, and students do not always possess the skills and motivation for the highly self-paced nature of online learning. Student readiness could be measured through a self-assessment developed by the educational institutions. Withdrawals and dropouts may be reduced.

"Lesson 2: Communicate with Students." Students expect faculty to initiate the communication, which is critical to overcome the disconnect between other online students and instructor that arises from distance learning.

"Lesson 3: Regarding Online Course Materials." All of the course materials are available online; however, the drawback may be that they do not have something they can put their hands on. It is important that students have the option to purchase course materials; i.e., textbooks, CDs, tutorials, for later reference.

"Lesson 4: The Challenges of Student Retention." Procedures and policies for attendance and withdrawal should be established. Involving the students in participation and communication can help improve course completion.

"Lesson 5: Student Support." Colleges may not have services supporting students in forms that the students expect. Students look to the instructors to provide the support needed for the class. It is important that clear objectives and communication are established early in their course and in the early weeks of the program.

"Lesson 6: Student Selectivity When Using the Course Platform." Web-based platforms for courses have many components. Dirr established that students only use what is essential to

passing the course. Students want to know the minimum requirements for course completion, and they will use just those tools required to pass at the desired level of success.

"Lesson 7: Securing Field Experiences." Mentors and trainers are not always available for students for various reasons, such as shortages of mentors and lack of time to take students under their wings. Time causes concerns for training in the real world setting, compromising the virtual environment and assessment of the skills learned (p. 2).

Through participation and communication between student and teacher, the student is more likely to complete the course successfully. The seven lessons, if applied, can help institutions learn about the student and examine the effectiveness of online programs and improve retention.

As reflected in Dirr's seven lessons, the importance of improving retention and learning about the students' needs are addressed by Howell and Hricko (2006). Both Howell and Hricko support the belief that "assessment can be an effective way to gather critical information about students and course performance before, during, and after a course has taken place" (p. 2).

Chapter III: Methodology

Introduction

The purpose of this study was to gather data and gain insight about the readiness of students entering an online class for the first time. This study also analyzed how this readiness contributed to retention or successful completion of the course(s). The study determined whether a reliable pre-Internet enrollment evaluation positively affects student retention.

This chapter includes information about how the sample was selected, a description of the sample, and how the instrument was developed and implemented. The chapter will conclude with a description of methodological limitations.

Instrument Design

The survey instrument was developed and administered through email using a survey research program, Zoomerang, allows users to create customized surveys with reporting capabilities. The research program assisted in the documentation of analysis. The researcher developed an original 20-question survey (see Appendix A) to gather data of how students' preparedness for taking online classes factored in the successful completion of an online course. Successful completion is defined as program requirements of final grades of C and above for Health Programs and for all other programs D- and above (CVTC 2009). Also, through the use of the instrument, this researcher attempted to determine whether evaluating a student's readiness prior to taking an online course would have benefited student's completion or retention.

The survey consisted of 20 statements; the first nine were based on a satisfaction scale. The student selected one statement from a list of statements that best identified his/her demographics including gender, age, and occupational area. Questions 6, 7, 8 related to decisions

about enrollment while question 9 related to the students preference of learning. For questions 10 and 11 the satisfaction scale (5 point) is as follows: 1=Not prepared, 2= Somewhat prepared, 3= Prepared, 4= Extremely prepared, 5= Not Applicable (N/A). Questions 12, 13, 14, 15, and 16 related to assistance in successful or unsuccessful completion of courses. Question 17, 18, 19 referred to overall satisfaction of the student's online experience. Question 20 allowed the student the option of receiving the survey results by including their email. The instrument was reviewed for face validity as follows:

Table 1

Research Objectives Related to Survey Questions

Research Objectives	Survey Questions
1. Identify students' perceived scale of preparedness for online learning.	10, 11
2. Describe what additional preparation (orientation) students need to feel satisfied about their readiness to learn online.	12, 14
3. Determine if student readiness for online courses contributes to course retention.	7, 8, 9, 16
4. Analyze differences in student readiness and preparation based on demographic categories.	1, 2, 3, 4, 5, 6
5. Determine if student readiness for online courses contributed to course success.	13, 15, 17, 18, 19

Subject Selection and Description

This study analyzed readiness of students enrolled at Chippewa Valley Technical College to take any online classes. Prior to collecting and analyzing data, the researcher needed approval from the Institutional Review Board (IRB). The IRB assured protection of any identifiable

private information of the subjects completing the study. Submission for IRB to collect and record identified subjects enrolled in online classes in the Spring of 2008 was approved. With this approval, the researcher could begin the process for collection of data. The total number of unduplicated students enrolled in online courses for the Spring 2008 semester was 461 students.

Data Collection Procedures

The pilot survey instrument was designed to measure students' level of readiness for online learning. The survey itself was administered first with a control group of ten individuals to pilot the survey before it was distributed for completion. A one week timeframe was allotted for response return. Several questions were adjusted on the pilot surveys to better reflect responses. Student confidentiality and anonymity was preserved by placement of email address in the Bcc: line which allowed only the intended receiver's name to show. Other than the demographic questions, there were no identifying questions or characteristics on the survey. The survey was administered via an email message that included a link to access the Internet survey.

Email addresses were obtained of students enrolled in online courses during the Spring 2008 semester at Chippewa Valley Technical College. The CVTC Registrar provided the students' email addresses through the Banner System thereby keeping the names and addresses anonymous to the researcher.

An initial email introducing the researcher and the purpose of the survey was sent on August 7, 2008. The actually survey email was sent on August 11, 2008. Participants had one week to complete the survey for this study. A reminder email was sent on August 14, 2008, for those students who had not completed the survey with their feedback to the study. A thank-you email was generated at the close of the survey timeline on August 16, 2008. Students registering

their email on survey question number 20 will receive a summary of the computed results of the study.

Four hundred and sixty-one (461) students received the introductory email request to complete the survey if they were enrolled in online courses for the Spring 2008 term. A reminder email was sent two weeks following the initial introductory email. Twenty-three additional responses were received after the reminder email.

Data Analysis

Data collected through the surveys was analyzed using descriptive statistics of percents and means of raw data downloaded from Zoomerang, including frequency distributions, measures of central tendency-especially median score and variability. For quantitative analysis SPSS was used which generated data of frequency counts, percentages, and thematic analysis. Then an independent group's t-test analysis was conducted on the survey results producing means and standard deviations for each set of information. The results of these findings are discussed in Chapter 4 with conclusions and Recommendations in Chapter 5.

Limitations

1. Completion of the survey was optional. Not all of the students will participate because they may not desire to be a part of the online survey, thus producing limited responses. Some students did not participate because they were no longer enrolled at CVTC the summer of 2008 when the survey was administrated. A student's email may be deleted without him/her recognizing the importance of completing the survey to collect data.
2. During the course of completing the survey, limitations of technology could interrupt or discontinue the process of completion. Surveys not completed were not part of the analyzed data.

Summary

Analysis was conducted of opinions regarding readiness for online learning of all students enrolled in the Spring of 2008 at Chippewa Valley Technical College in an online course. Students enrolled in more than one online course were only counted once.

A 20-question survey was administered through email using a survey research program called Zoomerang during fall 2008 the survey was sent to 461 individuals. Statistical Package for Social Science (SPSS) analysis, t-test, ANOVA, and frequency tests were completed on the survey. Final limitations in the study include participation completion error, participation of the survey, time constraints of the population surveyed, and "possible?" survey construction error.

Chapter Four presents the description of the sample selection, data collection and data analysis to determine if students demonstrated readiness for online learning with successful completion of the course.

Chapter IV: Findings or Analysis of Results

Introduction

This research is an analysis of readiness for enrolling in online classes at the post secondary level. The survey was also designed to analyze the student's readiness for enrolling and completing online courses successfully. In addition, the student described satisfaction of the online experience through additional comments. The study was also designed to evaluate the demographics of Internet courses taken by students enrolled through Chippewa Valley Technical College.

Four hundred sixty-one (461) students were selected to participate in the study. The sample represented any student who was enrolled in online classes during Spring semester of 2008. The students were counted only once even if enrolled in multiple classes for the semester. Initially, emails requesting participation were sent to all participants the third week in August 2008. Thirty-six surveys were returned as undeliverable, 15 were delayed delivery, and 4 responded they could not access the survey.

A reminder notice was sent to all participants in September 2008. The reminder was to encourage those individuals to respond if they had not done so. The surveys returned were 202 out of 460 or 43.8 percent. The number for some survey questions varies because participants opted to not answer selected questions. There were no additional surveys returned after the reminder.

Age of Participants. The first research question asked focused on age of the participant. Of the 201 respondents 37 percent were between the ages of 18–25, 31 percent were between the ages of 26–35, 32 percent were over the age of 36. See Table 2 for a summary of participants by age.

Table 2

Age of Participants

Age	Frequency	Percent
18-25	74	36.6
26-35	62	30.7
36-45	35	17.3
46-55	26	12.9
55+	4	2.0
Total	202	100.0

Gender. The second survey question asked to indicate their gender. Of the 202 respondents, 169 (or 83.7 percent) were female and 33 (or 16.3 percent) were male. No survey question was asked to reflect gender with age.

Occupational area. The third survey question asked to describe the occupational area or program. Ten categories based on CVTC's program areas were listed. The choice of "Other" was also included which allowed participants to write in responses. Program/occupational areas including "Other" were listed. Of the 202 participants, 65 (or 32 percent) were Health Program/Occupational; 56 (or 27.7 percent) were "Other"; 40 (or 20 percent) were Administrative Program/Occupational area (see Table 3).

Table 3

Occupational Area or Program

Occupation	Frequency	Percent
Health	65	32.2
Other, please specify	56	27.7
Administrative	40	19.8
Marketing (retail/sales)	11	5.4
Clerical	10	5.0
Paralegal	9	4.5
Manufacturing	4	2.0
Educator/Trainer	3	1.5
Service (food, beverage, cleaning, security)	3	1.5
Total	202	100.0

The other, responses included 6 (or 3 percent) Accounting; 6 (or 3 percent) for Information Technology; 3 (or 1.5 percent) Criminal Justice; 3 (or 1.5 percent) Engineering. The "Other" responses were re-coded and combined into the following groups (see Table 4):

- B = clerical, marketing, paralegal, service, manufacturing, business
- A = administrative, educator, accounting, law
- H = health, child care
- I = IT/Computer/Engineering

Table 4

Other Occupational Areas or Programs

Occupation	Frequency	Percent
IT/Engineering	20	35.7
Administrative	17	30.4
Business	15	26.8
Health	4	7.1
Total	56	100.0

Level of Education. The fourth survey question asked the participants the highest level of education completed. Of the 202 participants, 114 (or 57 percent) were high school graduates; 24 (or 12 percent) had associate degrees; 20 (or 10 percent) had certificates; 19 (or 9 percent) had technical diplomas; 11 (or 5 percent) had a bachelor's degree (see Table 5).

Table 5

Highest Level of Education Completed

Level of Education	Frequency	Percent
High School	114	56.4
Bachelor Degree	24	11.9
Certificate	20	9.9
Technical Diploma	19	9.4
Other	7	3.5
GED	5	2.5
Masters Degree	1	.5
Total	202	100.0

"Other" responses were re-coded and compressed into two categories—secondary and post secondary—with the use of an independent samples t-test (see Table 6).

Table 6

"Other" Highest Level Education Completed

Education	Frequency	Percent
Secondary	119	58.9
Post secondary	82	40.6
Total	201	99.5

Demographics. The fifth survey question focused on the demographics of the participants. The question asked the participants' round trip distance from CVTC's main campus in Eau Claire. Of the 200 respondents to this question, 69 (or 34 percent) live a distance of 40+ miles away; all other respondents lived less than 40 miles round trip from the main campus (see Table 7).

Table 7

Distance from CVTC

Distance	Frequency	Percent
40+ miles	69	34.2
0-10 miles	56	27.7
11-20 miles	40	19.8
21-40 miles	35	17.3
Total	202	100.0

Enrollment Reasons. The sixth survey question looked at the reason for enrolling in an online course. Of the 202 respondents, 121 (or 59.9 percent) indicated "obtaining a Degree"; 23 (or 11.4 percent) noted "travel"; 21 (or 10.4 percent) for personal improvement; with 25 (or 12.4 percent) responding as "Other" (see Table 8).

Table 8

Reason for Enrolling in an Online Course at CVTC

Reason	Frequency	Percent
Obtaining a Degree	121	59.9
Other, please specify	25	12.4
Travel	23	11.4
Personal Improvement	21	10.4
Professional Certificate	6	3.0
Job Promotion	4	2.0
Job Requirement	2	1.0
Total	202	100.0

Enrollment in Other Courses. The seventh survey question asked the respondent to indicate enrollment in other courses. Of the 200 respondents, 160 (or 84 percent) responded "Yes" while 31 (or 16 percent) responded "No." If the respondent answered "yes" to Question 7, the respondent was asked if those courses he/she was enrolled in were face-to-face. Of the 174 respondents, 144 or (83 percent) indicated "Yes."

Preferred Mode of Learning. The ninth survey question asked the respondent his/her preferred mode of learning. Of the 201 respondents, 72 (or 36 percent) indicated Internet, 61 (or 30 percent) indicated face-to-face (traditional), and 57 (or 28 percent) indicated combination of face-to-face and Internet. The participants responding to the "Other" indicated specific classes versus the mode of learning (see Table 9).

Table 9

Preferred Mode of Learning

Mode	Frequency	Percent
Internet	72	35.6
Face-to-Face (traditional)	61	30.2
Combination of Internet and Face-to-Face (Hybrid)	57	28.2
Lab	7	3.5
Other, please specify	4	2.0
Total	202	100.0

Preparation to Participate Online. The tenth survey question asked the respondents how prepared they were to participate online. This question had a rating scale from 1 = not prepared to 4 = extremely prepared. Of the 202 respondents, 81 (or 40.3 percent) were extremely prepared, 80 (or 39.8 percent) prepared, 34 (or 16.9 percent) somewhat prepared, and 6 (or 3 percent) not prepared. The participants rated choices of technical skills, time available, access to adequate technology, balanced personal commitments and balanced work commitments.

From this data, the respondents rated the first and second items—technical skills (mean= 3.41) and access to adequate technology (mean=3.50)—quite high showing the self-rating as strong. Interestingly, personal and work commitments had mean ratings of 3.09 and 3.14 respectively which may indicate that online courses frequently involve more time than actual time allowed for (see Table 10).

Table 10

Preparation for Participation in Your Online Class(es)

Preparation	Number	Mean	Extremely Prepared N (%)	Prepared N (%)	Somewhat Prepared N (%)	Not Prepared N (%)
Access to adequate technology	202	3.50	115 (37.1)	1 (37.1)	11 (5.4)	1 (0.5)
Technical Skills	200	3.41	101 (50.0)	82 (40.6)	15 (7.4)	2 (1.0)
Time available to devote to online learning	201	3.17	81 (39.8)	80 (39.6)	34 (16.8)	6 (3.0)
Balanced work commitments	191	3.14	62 (30.7)	98 (48.5)	27 (13.4)	4 (2.0)
Balanced personal commitments	200	3.09	57 (28.2)	107 (53.0)	32 (15.8)	4 (2.0)

ANOVA was used to test for statistical differences in average preparation ratings by occupational area/program. Results of the ANOVA tests are in Table 11. The only statistically significant results for the omnibus *F*-test (testing to see if there were any differences between the four programs) was for the time available to devote to online learning. For this question,

IT/engineering program (mean = 2.70) had statistically lower average ratings than the business (mean = 3.25) and health programs (mean = 3.26) (see Table 11).

Table 11

ANOVA Results for Preparation for Participation in Your Online Class(es) by Occupational Area/Program

Preparation	*F*-statistic	Degrees of Freedom	*p*-value
Technical Skills	1.81	3	.147
Access to adequate technology	1.58	3	.195
Time available to devote to online learning	2.74	3	.044
Balanced personal commitments	1.58	3	.195
Balanced work commitments	1.92	3	.0128

A t-test analysis was conducted to determine whether there were gender differences in the average ratings. The t-test results revealed males rated themselves statistically higher in technical skills. All other areas (time available, access to adequate technology, balance of personal and work commitments) were statistically lower. (See table 12).

Table 12

ANOVA Results for Preparation for Participation in Your Online Class(es) by Gender

Preparation	Gender	Number	Mean	*t*-statistic	*p*-value
Technical Skills	Male	33	3.64	2.69	.009
	Female	167	3.37		
Access to adequate technology	Male	33	3.61	1.11	.269
	Female	169	3.49		
Time available to devote to online learning	Male	33	3.03	1.02	.311
	Female	168	3.20		
Balanced personal commitments	Male	33	2.91	1.54	.126
	Female	158	3.12		
Balanced work commitments	Male	33	3.09	0.44	.664
	Female	158	3.15		

ANOVA was used to test for differences in average ratings across age groups. The youngest group, aged 18-25, had the highest average ratings of all the age groups for technical skills (mean = 3.65). These differences were statistically significant when compared to the 26-35 year old group (mean = 3.36) and the 46+ year old group (mean = 3.00). The youngest group, aged 18-25, had the highest average ratings of all the age groups for access to adequate technology (mean = 3.23). These differences were statistically significant when compared to the 46+ year old group (mean = 3.23). There were no statistical differences between age groups for the other three preparation questions (see Table 13).

Table 13

ANOVA Results for Preparation for Participation in Your Online Class(es) by Age

Preparation	*F*-statistic	Degrees of Freedom	*p*-value
Technical Skills	7.72	3	.000
Access to adequate technology	2.90	3	.036
Time available to devote to online learning	0.79	3	.500
Balanced personal commitments	1.24	3	.297
Balanced work commitments	1.78	3	.153

Assistance or Support for Online Classes. The eleventh survey question asked how assistance and/or support helped ready the participant for the online class(es). The respondents indicated strongly disagree, disagree, agree, and strongly agree. The respondents were to rate using the scale of "strongly agree" to "strongly disagree" whether they received technical support from CVTC, communication and/or feedback, or information regarding course requirements. Of the 147 respondents who received technical support the mean rating was 2.98, of 195 respondents the average rating for communication or feedback was 3.48, and of 195 respondents who received information about course requirements the mean ratings was 3.49

Table 14

Assistance and/or Support From CVTC Help for Your Online Class(es)

Assistance and/or Support	Number	Mean	Strongly Agree N %	Agree N %	Disagree N %	Strongly Disagree N %
I received information provided about course requirements	195	3.49	107 (53)	80 (39.6)	5 (2.5)	3 (1.5)
I received communication and/or feedback from course instructor	195	3.48	110 (54.5)	72 (35.6)	9 (4.5)	4 (9.4)
I received technical support from CVTC	147	2.98	36 (17.8)	82 (40.6)	19 (9.4)	10 (5.0)

Additional Assistance from CVTC. The twelfth survey question was a response to question eleven. The participants were to identify what additional assistance could have been given by CVTC in preparation for completing their online course. Of the 202 participants, 61 offered 71 comments. See Appendix E – Survey Instrument Question 12 for a complete list of comments.

The responses were divided by qualitative themes. Of the respondents, 23 responded "could not think of anything"; 12 responded "did a good job"; 6 responded "orientation or student training would have been helpful"; 10 gave general comments regarding courses offered at CVTC (see Table 15).

Table 15

Additional Assistance and/or Support from CVTC

Qualitative Themes: Theme:	Example:
None/Can't think of anything (23)	• "No thoughts at this time" • "None/Nothing"
Did a good job already (12)	• "They did everything they needed to" • "Nothing they were great" • "Learning resources and assistance from instructor were exceptional"
Orientation/Student Training (6)	• "Online tutorials" • "I would have liked an orientation"
Organization (3)	• "Very organized information on blackboard from the instructor is crucial"
Help Desk (3)	• "CVTC help desk"
Offer CD (2)	• "Have my course books on the CD or flash drive"
Face-to-Face(2)	• "Face-to-face meeting the first day"
General (10)	• "I would like to see more hybrid courses offered at CVTC" • "Give examples what online courses are like"

Influence on Successful Completion of Online Courses. The thirteenth survey question asked if the respondent successfully completed the online course. If "Yes" was indicated, the respondents were to continue to survey question fourteen. If "No" was indicated, the respondents were to proceed to survey question sixteen. Of the 202 participants, 188 or (93 percent) responded "Yes."

Influence on Successful Completion

The fourteenth survey question was answered by the respondent if "Yes" was answered to survey question number thirteen. Survey question fourteen asked what influenced successful completion of the online class. The participants' responded to all that applied. The participants' choices included "if content was appropriate for the course educational requirements," "course's

requirements clearly expressed," or "high-quality instructor support." One choice was "Other" which most respondents indicated they needed or required for their program as the choice for completion (see Table 16).

Table 16

Influences for Success

Influences	Number Chosen	Percent
Course content was appropriate for educational requirements	140	69.3
Course requirements clearly expressed and attainable	135	66.8
Course Content was clear and easily understood	130	64.4
Communication and/or feedback from instructor	124	61.4
Received high quality instructor support	107	53
Grades received in the internet course were about the same as face-to-face courses	103	51
Technical support from CVTC	33	16.3
Other commented most frequently was required/needed	16	8

Aids to Successful Completion of Online Course(es)

The fifteenth survey question asked participants to indicate what aided their success. This question follows the sequence order if question thirteen of successfully completed was "Yes." The respondent was to check all that applied. Based on the response from survey question number thirteen, 200 respondents, 188 answered "Yes" (see Table 17). Both question fifteen and sixteen contained the same number of elements. Participants indicated "Other" and

specified reasons if successfully completed the class or did not successfully complete the course (see Appendix F).

Table 17

Aids for Successful Completion of CVTC Online Course(s) as Determined by Course Completers

Component	Yes	Percent
More flexible time requirements	151	80.3
Better communication with Instructor(s)	77	41.0
Additional technological knowledge	42	22.3
Orientation on "how to" take an online course	35	18.6
Better individual student support from CVTC	32	17.0
Restructuring of course requirements	26	13.8
Preliminary internet preparation course	22	11.7

The sixteenth survey question asked respondents to indicate what would have improved their chances of success in CVTC Internet courses they had not completed. Based on the response from survey question number thirteen, 200 respondents, 14 answered "No" (see Table 18). Participants indicated "Other" and specified reasons if successfully completed the class or did not successfully complete the course (see Appendix G).

Table 18

Aids for Successful Completion of CVTC Online Course(es)as Determined by Course Non-Completers

Component	Number chosen	Percent
More flexible time requirements	6	42.0
Better communication with Instructor(s)	2	14.3
Orientation on "how to" take an online course	2	14.3
Restructuring of course requirements	1	7.1
Additional technological knowledge	—	—
Better individual student support from CVTC	—	—
Preliminary Internet preparation course	—	—

Satisfaction with CVTC's Online Course(es)

Overall Satisfaction. The seventeenth survey question asked the participant if the Internet course provided a successful learning experience overall. Of the 201 respondents, 190 (or 94.1 percent) responded "Yes" and 11 (or 5.4 percent) responded "No."

Online Participant Recommendation. The eighteenth survey question asked the participants if they would recommend taking an Internet course at CVTC. Of the 200 respondents, 188 (or 93.1 percent) responded "Yes" and 12 (or 5.9 percent) responded "No."

Continue Online Learning. The nineteenth survey question asked the participant if they would definitely take another online course at CVTC. Of the 200 participants, 178 (or 88.1 percent) responded "Yes" and 22 (or 10.9 percent) responded "No."

Chapter V: Summary, Conclusions, and Recommendations

Chapter Five provides a synopsis of the research findings. Conclusions are discussed and recommendations made about the readiness of students for online learning at the post secondary level at CVTC. Finally, further study recommendations are included.

Summary

No previous research has determined the readiness of online students for successful completion of an online course. Research was needed to identify the need for readiness programs or courses to prepare the student for successful completion of online courses and therefore increase retention rates. Within the educational system, retention and successful completion of courses have become priorities. The intent of this study was to determine if the readiness for online learning also had a determined effect of completing the course or retaining the student.

This research was conducted with the use of an electronic survey emailed to all online students enrolled during the Spring 2008 semester at CVTC. Nineteen survey questions focused the research. Results summarized by research objective question are stated here:

Research Objective 1. What is the adult students' perceived readiness for online learning?

As the literature reviews in Chapter Two indicated, adults are returning to school with full-time jobs, families, and other commitments. Enrolling in online courses allows for prioritizing and flexibility between family, work, and education (WTCS, 2006).

The majority of respondents felt prepared or extremely prepared for online learning regarding technology skills 183 (or 90.6), time available for learning (161 or 79.7 percent), and balance between personal and work commitments.

Research Objective 2. What, if any, additional preparation (orientation) do adults need to feel satisfied about their readiness to learn online?

It would appear that the respondents enrolled in an online class strongly agree (147 or 72.8 percent) the assistance/support received to prepare them for an online course was adequate. When the majority of the respondents were asked what additional assistance could have been given to prepare them for online learning, comments centered on "organization of the course," "if you need help-just ask," and "have online tutorials."

Research Objective 3. Does student readiness for online learning contribute to the course retention? Students' self-reported data shows students believe they are ready for online learning. Self-reported data also shows these same students have completed (188 or 93 percent) of their online courses. One can conclude from the data that readiness for online learning does contribute to course retention at least in the perception of the online learner.

Research Objective 4. Based on demographic categories what is the student readiness and preparation for online courses? Major findings showed a statistically significant difference for technical skills whereby those aged 18–25 had statistically higher ratings (mean = 3.65) than the 26–35 (mean = 3.35) and 46+ (mean = 3.00) were indicated by age groups. Statistically significant differences for access to adequate technology were those aged 18–25 (mean = 3.62) who had higher mean ratings than the 46+ (mean = 3.25) age group. One component of gender differences revealed males (mean = 3.64) rated their technical skills higher than females (mean = 3.37). All other areas were statistically the same.

The analysis of occupational area was categorized into 8 major occupational or program areas encompassing 146 respondents. The majority (65 or 32 percent) respondents categorized themselves in the Health area, and (40 or 19.8) respondents in the Administrative area followed with 56 in the category of "Other." The "Other" category was divided into four groups: IT, Administrative, Health, and Business. The data received indicated that there was a noticeable

diversity of students in program areas across the college which means the survey data is representative of the online program array at CVTC.

The majority of the respondents, (169 or 83 percent) were female, the two highest reporting programs were Health and Administrative (52 percent). It is not clear whether CVTC's online programs cater to the female gender or if females are more likely to respond to a survey.

Less than half (75 or 37.1 percent) of the respondents enrolled in CVTC's online courses have other post secondary education The researcher discovered no significant research regarding the relationship between online readiness and students' level of education. The reasons for enrolling in online courses at CVTC were to obtain a degree and minimize travel.

Research Objective 5. Does student readiness for online learning contribute to the course success? Students' self-reported data shows students believe they are ready for online learning. Self-reported data also shows these same students have completed their online courses. If one accepts that course retention equals course success, one can conclude from the data that readiness for online learning does contribute to course success at least in the perception of the online learner.

The review of literature would point towards the need for readiness by the student for the online environment. There have been programs developed by educational institutions as remedial options as pointed out in the literature. In the study, there is not any data supporting that readiness assessments are being used and to what success (Bruso 2001).

Conclusions

The findings support a relationship between readiness and successful course completion. Table 14 confirms that 35 (or 18.6 percent) of students would use online tutorials as additional assistance to prepare them for online learning. Online tutorials have been created and are

available to students; why then, are they requesting online tutorials as additional assistance? Do students not know where they are located, or are they not accessing the online tutorials? Do the online tutorials need to be brought to the attention of the students, or better promoted by CVTC? A majority of the responses indicated they could not think of anything that CVTC could do to prepare for online learning. A few comments suggested that CVTC could have a face-to-face orientation with more information on how to use online courses, where and what to do. Perhaps this indicates that CVTC is already meeting many students' needs.

The data showed that students were quite confident of technical skills (101 or 50.0 percent), reasonable access to technology (115 or 56.9 percent), and time needed to work on assignments (81 or 40 percent). Balancing personal commitments (57 or 28.2 percent) were of concern. Perhaps this indicates that CVTC needs to enhance their preregistration counseling to verify that students are cognizant of the challenges of balancing a personal life and online learning.

Overall, the participants reported satisfaction with their online course experience in that (190 or 94.1 percent) students reported that the online course provided a successful learning experience. This satisfaction perhaps had nothing to do with the readiness to learn. It could relate to the teacher, organization and format of the course, homework and assignments easily understood, or simply having a friend and the development of a social online network.

Recommendations for Future Study

This study did not address the definition of "successful completion." Relating to this study's correlation between readiness and successful completion, it would appear to be important that the institution define successful completion. Is "successful completion" tied to a particular minimum grade as alluded to CVTC program requirements (CVTC, 2009)? Does it simply mean

the student has remained in the course through the final grading period? Or is a perception of successful completion as self-reported by the participant sufficient to define that measure? Students may not be totally qualified to gauge whether they are successfully completing a course and why. A study is needed to survey the instructors to gauge their perception of how prepared the student is for the online learning environment.

Nor did the study investigate a correlation between gender and online readiness to learn, age and online readiness to learn, online readiness to learn and choice of program, specifically IT/engineering versus business and health programs. Based on the research and survey results, the researcher would suggest a study is needed to determine if there is any correlation between gender and online readiness to learn. In addition, a study is also needed to see if there is any correlation between choice of program and students' online readiness to learn.

Lastly, the study did not address the reliability or accuracy of the self-reported data about what specific online-readiness intervention allowed students to realize success in online learning. Further study needs to be conducted in these areas.

More studies are needed on reliability or accuracy of the self-reported data. Responses to questions 13, 14, and 15 related to satisfaction. Questions could be stated so they relate specific responses to readiness to interventions that helped students' succeed.

A further study is needed to find a way to increase awareness of the importance and correlation between online readiness and success. It is recommended that online tutorials be promoted with easier access and with more publicity to ensure students know and will use the online tutorials.

Responses indicated that the participants were prepared or at least believed they had what they needed to participate successfully in an online course. Empirical evidence related by

classroom instructors may not support this assertion. Semester after semester many of the students have difficulty with the technology, with reading, with understanding directions, and with finding time to complete course work. Anecdotal evidence from instructors identifies students' lack of adequate technology skills or insufficient time allotted for completing assignments online. This may cause students to struggle in the beginning of the course, fall behind, and eventually fail or drop the course. Further studies should be conducted to determine the validity of anecdotal instructor perceptions and experiences.

Overall, participants reported satisfaction with their online course experience which may have nothing at all to do with readiness. The organization of the course, course construction, teacher–student relationship, course format, amount of homework, or other design and delivery decisions could also contribute to student satisfaction. Further studies could be conducted to identify correlations of these elements with readiness and student success.

Further studies need to be conducted to determine the impact of each of these recommendations.

References

Albalooshi, F. (Ed.) (2003). *Virtual education: Cases in learning & teaching technologies* (pp.150-151). Hershey, PA: IRM Press.

Allen, I. E., & Seaman, J. (2007, March). *Making the grade – online education 2006: Executive summary.* Retrieved May 28, 2007, from http://Sloan-C Publications.

Banks, M. A. (2007, January/February). The internet, ARPANet, and consumer online. *Online Magazine, 31*(1), 32-34, Retrieved June 30, 2007, from www.onlinemag.net

Bozarth, J., Chapman, D., & LaMonica, L. (2004) Preparing for distance learning: Designing an online student orientation course. *Educational Technology & Society, 7*(1), 87-106.

Bruso, J. L. (2001). *Student Services,* Vol 2. C. Dalziel, & M.Payne (Eds.), *A comprehensive orientation to address diverse student needs* (pp. 9-19). Washington, DC: Instructional Telecommunications Council.

Chippewa Valley Technical College. (2007). *Getting started.* Retrieved May 14, 2009, from https://cvtc.edu/pages/768.asp?q=get+started&site=cvtc&client=cvtc&proxystylesheet=cvtc&output=xml_no_dtd&btnG.x=12&btnG.y=10

Chippewa Valley Technical College. (2007). *Virtual campus*. Retrieved June 10, 2007, from www.cvtc.edu/VCampus/TLC/index.html

Chippewa Valley Technical College. (2007). *Welcome.* Retrieved June 12, 2007, from https://cvtc.edu/pages/768.asp?q=virtual+campus&site=cvtc&client=cvtc&proxystylesheet=cvtc&output=xml_no_dtd.

Chippewa Valley Technical College (2009) *Program requirements*. Retrieved May 5, 2009, from http://www.cvtc.edu/Apps/PrevCatalogs/2009/ReqSheets/10-543-1PRS.pdf.

Commonwealth of Learning (October, 2007). *Providing support for eLearning in a global context.* Retrieved June 15, 2008, from http://www.col.org/colweb/site/pid/4777

CVTC News Bureau (2007, May 13). Graying grads more common. *Eau Claire Leader-Telegram,* 7C.

Darbyshire, P. (2005*). Instructional technologies: Cognitive aspects of online programs* Hershey, PA, pp. v-vi.

Dewey, J. (1938). *Experience and education.* New York: Touchstone. *Listen to the Students: A Qualitative Study Investigating Adult Student Readiness for Online Learning.* Miller, R. Retrieved June 30, 2007, from http://www.agclassroom.org/search.cfm?q=listen+to+the+students

Digest of National Statistics. (2005). *Dropout rates in the United States: 2005.* Retrieved June 30, 2007, from http://nces.ed.gov/

Federal Communications Commission. Internet history from Arpanet to broadband (2007, February). *Congressional Digest, 86*(2), 35, retrieved June 17, 2007, from Academic Search Elite database.

Green, J. (1998). Androgogy: Teaching adults. In B. Hoffman (Ed.), *Encyclopedia of Educational Technology.* Retrieved June 22, 2008, from http://coe.sdsu.edu/eet/Articles/andragogy/start.htm

Guglielmino, L. M., & Guglielmino, P. J. (2003). Preparing e-learners for self-directed learning. In G. M. Piskurich (Ed.), *Identifying learners who are ready for e-Learning and supporting their success.* Hoboken, NJ: Pfeiffer, 19-32.

Howell, S. D., & Hricko. M. (2006) *Online assessment and measurement: Case studies from higher education, K-12 and corporate.* Hershey, PA: Information Science Publishing, 1-40.

Hastings-Taylor, J. (2007, September). Traditional yet progressive: A twist on teacher preparation. *Technique, Connecting Education with Careers,* 20-24.

Knowles, M. S., Holton III, E. F., & Wansons, R. S. (1998). *The adult learner* 5th (ed.). Woburn, MA: Butterworth-Heinemann.

Learn North Carolina. (n.d.) Retrieved June 26, 2008 from www.learnnc.org/support/fourmyths-online.

Long, H. B. (2003). *Preparing e-learners for self-directed learning.* In G. M. Piskurich (Ed.), *Preparing learners for e-learning* (p. 1-17). Hoboken, NJ: Pfeiffer.

Lorenzettie, J. P. (2005, March). Lessons learned about student issues in online learning. *Distance Education Report, 9,*(6), 1, 4. Retrieved June 15, 2007, from Academic Search Elite database.

Lynch, M. M. (2002) *The online educator a guide to creating the virtual classroom.* London; NY: RoutledgeFalmer. [electronic version].

National Center for Education Statistics (2002) *Distance education at degree-granting post secondary institutions: 2000-2001.* Retrieved July 18, 2007, from Academic Search Elite database.

Palloff, R. M., & Pratt, K. (2003). *The virtual student - A profile and guide to working with online learners.* San Francisco, CA: Jossey-Bass, 3, 4, 15, 46-48, 108-109.

Pillay, H., Irving, K., & Tones, M. (2007, June). Validation of the diagnostic tool for assessing tertiary students' readiness for online learning. *Higher Education Research & Development, 26*(2), 217-234. Retrieved June 29, 2007, from Academic Search Elite database.

Roberts, M. M. (2006, July/August). Lessons for the future internet, learning from the past. *Educause Review,* 17-24.

Schlosser, C. A., & Anderson, M. L. (1994). *Distance education: Review of the literature,* Washington, DC: Association for Educational Communication and Technology,

Tsai, C. C. (2007, January). The relationship between Internet perceptions and preferences towards internet-based learning environment. *British Journal of Educational Technology 38*(1), 167-170.

Williams, D., Howell, S., & Hricko, M. (2006). *Online assessment, measurement and evaluation-emerging practices.* Hershey, PA: Information Science Publishing.

Wisconsin Technical College System e-Tech Reports. (2007). *Graduate Follow-up Report,* Retrieved June 16, 2008, from www.witechcolleges.org

Appendix A

Human Subjects in Graduate Research

University of Wisconsin Stout

Protection of Human Subjects in Research Form

Data collection/analysis cannot begin until there has been IRB approval of this project.

Directions:

- **Individuals who have completed the UW-Stout Human Subjects Training and can prove certification are eligible to file this form.**
- **This form must be filed and approved prior to any student (undergraduate or graduate), faculty, or staff conducting research.**
- **Complete this form on-line and print. Handwritten forms will not be accepted. *For your benefit, save your completed form in case it needs to be revised and resubmitted.***
- **Send or take the completed form, with required signatures and required materials attached, to Research Services, 152 Voc. Rehab. Building.**
- **This is a professional document; please check spelling, grammar and punctuation.**

Research is defined as a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

A human subject is defined as a living individual about whom an investigator obtains either 1) data through intervention or interaction with the individual; or 2) identifiable private information.

Investigator(s):
Name: Mary J. Felton-Kolstad ID: 0105523 Daytime Phone # 715.833.6373
e-mail address: felton-kolstadm@uwstout.edu Signature: _____

Name: ID: Daytime Phone #
e-mail address: Signature: _____

Name: ID: Daytime Phone #
e-mail address: Signature: _____

For students:
Research Advisor's Name: Julianne Taylor Department: Career and Technical Education
Signature: _____ Date of Approval: _____
Research Advisor: Have you completed UW-Stout's Human Subjects Training? Yes ☒ No ☐.
Reminder: You must have completed the new training after January 2, 2007.

Project Title: Analysis of Readiness of the Online Learner at Chippewa Valley Technical College

Sponsor (Funding agency, if applicable):
Is this project being supported by Federal funding? Yes ☐ No ☒

You must answer all of the following questions completely and attach all required forms.

1. Describe the proposed research/activity stating the objectives, significance, and detailed methodology (approximately 250-500 words; descriptions are to be written in future tense).

Objectives:

1. Describe adult students' perceived scale of preparedness for online learning
2. Describe what additional preparation (orientation) adults need to feel satisfied about their readiness to learn online.
3. Determine the relationship of student readiness for online learning and successful completion of a course.
4. Analyze differences in student readiness and preparation based on demographic categories.

Significance:

1. Not all students are prepared for online learning. Students may have no idea or the wrong idea, of what online learning is about.
2. Students will benefit by raising their awareness of the skills and qualities needed to be a successful online learner.
3. Students will benefit through data that will establish the significance of completing an online Pre-Assessment tool prior to entering an online course for the first time. The data obtained will attempt to relate the effectiveness of an online Readiness tool to the students successful completion of an online course.

Detailed Methodology:

The researcher plans to evaluate if there is a relationship between readiness for online learning and the retention of the online learner. This will be evaluated from data obtained through a web survey.

The registrars office will use the Banner System to identify the internet students currently registered through CVTC. The investigator will not have access to the names or any identifying factors relating to the students.

A websurvey will be developed to be completed by each student.

2. **Is this research?**
   (a) Is your activity intended for public dissemination? Yes ☒ No ☐
   (b) Can it reasonably be generalized beyond the research sample? Yes ☒ No ☐

If you answered no to these two questions, do not continue with this form. Stop here and submit form.

3. Does your research involve human subjects or official records about human subjects? Yes ☒ No ☐

If yes, continue with this form. If no, stop here and submit form.

4. Are you requesting exemption from IRB review in one of the federally approved categories? If yes, please reference OHRP Web site http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm#46.101 and select category that applies and continue with form. **If no, continue with Question #6 regarding Human Subjects Training.**

   ☒ (1) Is your research conducted in established or commonly accepted educational settings, involving normal education practices?
   ☐ (2/3) Is your research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior, AND identifying information will not be collected?
   ☐ (4) Is your research involving the collection or study of existing data, documents, records, or pathological or diagnostic specimens?
   ☐ (5) Is your research involving studying, evaluating, or examining public benefit or service programs AND conducted through a federal agency?
   ☐ (6) Is your research involving taste and food quality evaluation or consumer acceptance studies?

5. Human subjects training must be completed prior to filing this form. Have you completed UW-Stout's Human Subjects Training (http://www.uwstout.edu/rs/hstraining/index.htm)? Yes ☒ No ☐

6. Please note that research cannot begin until this project has been approved by the IRB. When is the data collection for the research *intended* to begin and end? **08/2008** to **08/2008** (enter month/year)

7. Can the subjects be identified directly or through any type of identifiers? Yes ☐ No ☒ If yes, please explain.
   Only the registrar or her designee will have access to the email addresses of members of the sample population. No Email addresses will be visible to any students other than their own.

8. Special precautions must be included in your research procedures if any of these special populations or research areas are included.

Are any of the subjects:

(a) minors (under 18 years of age)? Yes ☐ No ☒
(consent from parent & subject required)

(b) legally incompetent? Yes ☐ No ☒

(c) prisoners? Yes ☐ No ☒

(d) pregnant women, if affected by the research? Yes ☐ No ☒

(e) institutionalized? Yes ☐ No ☒

(f) mentally incapacitated? Yes ☐ No ☒

Does the research deal with questions concerning:

(a) sexual behaviors? Yes ☐ No ☒

(b) drug use? Yes ☐ No ☒

(c) illegal conduct? Yes ☐ No ☒

(d) use of alcohol? Yes ☐ No ☒

9. Voluntary participation/consent form:
Expected Number of Participants **Number will be determined by the population of online students registered during the Summer 2008 at Chippewa Valley Technical College.**

Describe the method:
(a) for selecting subjects.
The invesigator will obtain permission from the Registrar office to gather email addresses of online students enrolled in the Summer 2008 semester. The "Banner System" contains all registered CVTC students. A "population selection" will be conducted by the Registrar to include ONLY the students enrolled in Internet courses as the subjects of the research.

(b) for assuring that their participation is voluntary. If subjects are children and they are capable of assent, they must give their permission, along with that of their parent, guardian, or authorized representative. NOTE: A school district cannot give permission or consent on behalf of minor children.
The researcher will use Stout Grad School consent letter as a cover page of survey tool. By clicking - I Agree - participants will have access to the survey. If individuals elect not to participate, they will decline and the survey tool will close.

10. Procedures: Describe how subjects will be involved in detail.
The student has access to a Pre-Assessment tool through the CVTC home page environment or through the BlackBoard environment if made available by instructors.

The student will complete a Zoomerang survey.The Zoomerang survey will be completely anonymous and the researcher will not know who answered but rather tallied number of responses over total number of students enrolled. Data will be summarized in the aggregate form or by demographic categories. Email will be sent Agusut 15, 2008 with a reminder response August 22, 2008, one week prior to the final deadline date of August 29, 2008.

If the study:

(a) involves false or misleading information to subjects, or
(b) withholds information such that their informed consent might be questioned, or
(c) uses procedures designed to modify the thinking, attitudes, feelings, or other aspects of the behavior of the subjects,

describe the rationale for that, how the human subjects will be protected and what debriefing procedures you will use.

N/A

11. Special precautions must be included in your research procedures if you are doing an online survey.

Are you doing an online survey? Yes ☒ No ☐

If yes, please answer the following questions. If no, please skip to the next question.

(a) Will your survey results be posted on a Web site that could be accessed by individuals other than the investigators? Yes ☐ No ☒

(b) Does the URL for the survey include information that could identify individuals, such as a student ID? Yes ☐ No ☒

(c) When you send out an email inviting subjects to complete the survey:
Will you place all of the email addresses in the "bcc" line? Yes ☒ No ☐
Will you have the "read receipt" function turned off? Yes ☒ No ☐

(d) If your survey contains questions where the subjects choose from a drop-down menu, do they have the option to choose "no response" or to leave the question blank?
Yes ☒ No ☐ No drop-down questions ☐

If in question #11, you answered "yes" to question (a) or (b), or if you answered "no" to question (c) or (d), please address your reason(s) when completing question #12.

12. Confidentiality: Describe the methods to be used to ensure the confidentiality of data obtained.

Broad demographic categories will be used (gender, number of courses, discipline). Only the investigator and her designee will have access to raw date.

13. Risks: Describe the risks to the subjects and the precautions that will be taken to minimize them. (Risk includes any potential or actual physical risk of discomfort, harassment, invasion of privacy, risk of physical activity, risk to dignity and self-respect, and psychological, emotional, or behavioral risk.) Also, address any procedures that might be different from what is commonly established practice for research of this type.
Minimal risks, student perceptions of online learning only, no questions relating to personal matters or beliefs.

14. Benefits: Describe the benefits to subjects and/or society. (These will be balanced against risk.)
The student will benefit through a clearer and better understanding of the preparedness needed for online learning and how to become self-directed in the learning process while enrolled in any CVTC Program.

15. Attachments to this form: (NO ACTION WILL BE TAKEN WITHOUT THESE FORMS)

(a) Consent form(s). Form(s) should include explanation of procedures, risk, safeguards, freedom to withdraw, confidentiality, offer to answer inquiries, third party referral for concerns, and signature (only if the subjects can be identified by any means). If the survey is strictly anonymous, then a signature is not required). Sample consent forms can be found at http://www.uwstout.edu/solutions/rs/documents/cform.doc

(b) Questionnaire/Survey Instrument. The final version of the Questionnaire/Survey instrument must be attached. Also, if the survey is being conducted verbally, a copy of the introductory comments and survey questions being asked must be attached to this form. If your survey includes focus group questions, a complete list of the questions should be attached. For research using a published/purchased instrument, a photocopy of the complete survey will suffice.

(c) Printed copy of the UW-Stout Human Subjects Training Certification

The project or activity described above must adhere to the University's policies and institutional assurance with the U.S. Department of Health and Human Services regarding the use of human subjects. University review and approval is required. **REMINDER: You are in violation of UW-Stout, UW System, and federal government policies if you begin your study before IRB approval is obtained.**

Projects that are not completed within one year of the IRB approval date must be submitted again. Annual review and approval by the IRB is required. Projects that are determined to be exempt from IRB review hold exempt status for a period of 5 years, unless there are significant changes to the project.

Institutional Review Board Action:

_____ Project is exempt from IRB review under category ____. Exemption holds for 5 years.

_____ Project approved through expedited review.

_____ Project approved through expedited review provided minor modifications are completed.

_____ Project approved through the full board review process; date of meeting: _____

_____ Additional information is requested. Please see attached instructions and resubmit.

_____ Project not approved at this time.

_____ Project does not include human subjects.

_____ Project is not defined as research.

Signature:

_____

Institutional Review Board Chair or Designee Date

IRB Approved 12/15/06

Appendix B

Online Survey – Voluntary Participation and Confidentiality Statement

I understand that by completing and submitting this survey, I am giving my informed consent as a participating volunteer in this study entitled "An Analysis of the Effects of Intervention of Readiness of the Online Teacher." I understand the basic nature of the study and agree that any potential risks are exceedingly small. I also understand that there are potential benefits that might be realized from the successful completion of this study. I am aware that the information is being sought in a specific manner so that no identifiers are needed and that confidentiality is guaranteed. I realize I have the right to refuse to participate and that my right to withdraw from participation at any time during the study will be respected with no coercion or prejudice.

Zoomerang Survey link:

http://app.zoomerang.com/Create/preview/preview.zgi?ID=L23FCGXGBX3Y&bp=sm&p=WEB227WKG8UNNF

Introductory email

Your Invitation:

You are receiving this email because over the Summer Semester of 2008, you were enrolled in an Internet course through Chippewa Valley Technical College. As a U.W. Stout graduate student, I am conducting a survey regarding your readiness for online learning at CVTC.

Could you please find the time to complete the web survey by (submit date)? By completing this web survey, your responses will help ensure that CVTC has the best guidance available for first time registered online program students.

Please take a few moments and complete the online survey available by clicking on the following link.

http://app.zoomerang.com/Create/preview/preview.zgi?ID=L23FCGXGBX3Y&bp=sm&p=WEB227WKG8UNNF

Thank you for completing this web survey and participating in the study of readiness for online courses.

Sincerely,

Mary J. Felton-Kolstad

NOTE: This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

Investigator: Mary J. Felton-Kolstad,
715-833-6373
felton-kolstadm@uwstout.edu

Advisor: Juli Hastings-Taylor, PhD
taylorju@uwstout
715-232-1443

IRB Administrator
Sue Foxwell,
Director Research Services
152 Vocational Rehabilitation Bldg.
UW-Stout
Menomonie, WI 54751
715-232-2477
715-232-1444
foxwells@uwstout.edu

Follow-up Survey email

Hello:

On August 11, 2008 the link to a web survey was sent via email. On behalf of CVTC I am asking about the experiences and opinions of your readiness to take online classes at CVTC. As of today, August 14th, if you have not already done so; please complete the survey. The link is provided below if the introductory email was deleted from your email account:

Any questions or concerns feel free to contact me: (Mary J. Felton-Kolstad) at 715-833-6373 or by email at mfeltonkolstad@cvtc.edu . Thank you for your cooperation.

Sincerely

Mary J. Felton-Kolstad

Click this link to access the survey:

http://app.zoomerang.com/Create/preview/preview.zgi?ID=L23FCGXGBX3Y&bp=sm&p=WEB227WKG8UNNF

Appendix C

Online Survey

Internet Course Survey

By Instructor: Mary Felton-Kolstad

Initial Statement prior to entering the survey:

I understand that by completing and submitting this survey, I am giving my informed consent as a participating volunteer in this study entitled "An Analysis of the Effects of Intervention of Readiness of the Online Teacher." I understand the basic nature of the study and agree that any potential risks are exceedingly small. I also understand that there are potential benefits that might be realized from the successful completion of this study. I am aware that the information is being sought in a specific manner so that no identifiers are needed and that confidentiality is guaranteed. I realize I have the right to refuse to participate and that my right to withdraw from participation at any time during the study will be respected with no coercion or prejudice.

As you enter the survey the student will see the following:
Statement of Consent: By completing this survey you agree to participate in a project entitled *Retention Comparisons between Internet Readiness and Face to Face Instruction at CVTC.*

1. Select your age range
    - 18-25
    - 26-35
    - 36-45
    - 46-55
    - 55+
2. Select your gender:
    - Male
    - Female
3. Which item accurately describes your occupational area or program?
    - Service (food, beverage, cleaning, security)
    - Agriculture (Farming, Forestry, Fishing)
    - Clerical
    - Administrative
    - Educator/Trainer
    - Health
    - Marketing (Retail/Sales)
    - Manufacturing
    - Other, please specify
4. What is your level of education you have completed?
    - High School
    - GED
    - Certificate
    - Associate Degree

- Bachelor's Degree
- Master's Degree
- Post Doctorate/Ph.D.
- Other, please specify

5. Indicate the distance you live from CVTC's main campus in Eau Claire (in round trip miles):
   - 0-5
   - 6-10
   - 11-20
   - 20-40
   - 40+
6. What is the reason for enrolling in an Internet course at CVTC?
   - Job Promotion
   - Professional Certificate
   - Personal Improvement
   - Job Requirement
   - Travel
   - Obtaining a Degree
   - Other, please specify
7. Were you enrolled in any other courses at CVTC during the semester you enrolled in the Internet course?
   - Yes
   - No
8. If yes to the question above, were any of those courses Face to Face? courses?
   - Yes
   - No
9. What is your preferred mode of learning?
   - Internet
   - Face to Face (traditional)
   - Lab
   - Combination of Internet and Face to Face (Hybrid)
   - Other, please specify

Key:

1=Not prepared 2=Somewhat prepared 3= Prepared 4=Extremely prepared N/A	1	2	3	4	N/A
10. In the following areas, how prepared were you to participate in your online class(es):					
Technical Skills (Knowledgeable of software, hardware, troubleshooting, maintenance, internet navigation)					
Time available to devote to online learning					
Access to adequate technology					
Balanced personal commitments					
Balanced work commitments					

Key:

1= Strongly Disagree 2=Disagree 3=Agree 4=Strongly Agree N/A (Not Applicable)	1	2	3	4	N/A
11. In the following areas, how did assistance and/or support from CVTC help you get ready for your online class(es):					
I received technical support from CVTC					
I received communication and/or feedback from course Instructor					
I received sufficient information provided for course requirements					

12. What additional assistance and/or support could CVTC have provided to help you better prepare for taking an online?

13. Did you successfully complete the online course? (If YES proceed to question 14, If NO proceed to question16.)

- Yes
- No

14. Please indicate what influenced you to successfully complete the course. (check all that apply)	
Course content was appropriate for educational requirements	
Course requirements clearly expressed and attainable	
Received high quality instructor support	
Course content was clear and easily understood	
Grades received in the Internet course were about the same as in Face to Face courses	
Technical support from CVTC	
Communication and/or feedback from instructor	
Other, please specify	

15. If you successfully completed a CVTC Internet course, please indicate what aided in the success of your. (Check all that apply)	
Orientation on "how to" take an online course	
Preliminary Internet preparation course	
Better communication with Instructor(s)	
Better individual student support from CVTC	
More flexible time requirements	
Additional technological knowledge	
Restructuring of course requirements	
Other, please specify	

16. If you did NOT successfully complete a CVTC Internet course,what would have improved your success. (Check all that apply)	
Orientation on "how to" take an online course	
Preliminary Internet preparation course	
Better communication with Instructor(s)	
Better individual student support from CVTC	
More flexible time requirements	
Additional technological knowledge	
Restructuring of course requirements	
Other, please specify	

17. Overall, the internet course provided a successful learning experience.

- Yes
- No

18. Would you recommend others to take an internet course at CVTC?

- Yes
- No

19. Will you definitely take another internet course at CVTC?

- Yes
- No

20. If you would like a copy of the survey results, please enter your email address_____

Appendix D

Qualitative Analysis Question 12—"Other" responses

Full List of Comments to Survey Question #12

- Your just have to organized & not miss deadlines
- Whenever I need help I have to just ask and I will receive.
- Very organized information on blackboard from the instructor is crucial.
- Trying to follow if I was accepted in the class and being kept updated as to my status was lacking. Once classes started communication was great!
- This is not my first online class. So I am familiar with how it is to be done. Not much assistance is required.
- They did everything they needed to
- There was a informational speaker who taught people how to use blackboard.
- There should be an optional day where the instructor sets time to meet the class face to face. To go through information for the class face to face.
- The help desk service needs to know when we call we do not live in Florida and when they say they are going to have tech come to the campus they need to know we are over 1000 miles away.
- take more time to get your assignments done
- Some teachers offer an optional class to teach the navigation of online classes. Maybe CVTC could have this in the beginning of each semester
- Some instructors are not cut out to teach online courses. They maybe should be required to take a course in teaching online students.
- online tutorials
- offer a cd or offer a virtual tour
- Nothing. I think that both times that I took an online class I was well informed. I think that students taking online courses should be self motivated, but things were fine for me.
- Nothing. There were sessions at school and there is the IT desk. Very, nice helpful people.
- nothing they were great
- Nothing I can think of.
- Nothing
- not sure, had no problem with an online class last semester
- None that I can think of
- None right now
- none X 12
- No thoughts at this time...
- NA
- more info on how to use online courses and where and what to do.
- more detail on how much time is needed for an online class. I also think timed quizzes and exams is hard if you are not prepared
- making software available
- learning resources and assistance from the instructor was exceptional
- keeping things more organized on blackboard
- I would of like to have an orientation.

- I would like to see more hybrid courses offered at CVTC.
- I think they did a pretty good job.
- I think that the online instructors should come to the different campuses at least once to meet the students and go over any question they may have about the class.
- I think CVTC does good preparing students for online courses.
- I think CVTC does a really good job of preparing for the online courses with tutorials on Blackboard, instruction communication and very clear syllabus.
- I had trouble with my e-mail and wasn't receiving my up-to-date e-mails and I just got logged into my up-dated e-mail system today 9-3-08
- I feel CVTC and support prepared me well for the online course.
- I don't think there was anything more that they could have done. My only problems with the online courses came from my family life.
- I don't know.
- I can't think of any more assistance that would have helped me.
- Help Desk
- having all instructors send out welcome letters with book requirements at least a week before classes start.
- Have my courses books on the cd or flash drive.
- give examples what online courses are like
- for now nothing really because to take an online course "you" not CVTC but "you" have to prepare for the class because "you" are the one who have to submit all of your homework.
- Face-to-face meeting the first day.
- Everything was pretty laid out; I knew what I was getting into.
- Demonstrate in the different functions of how to use the online courses.
- CVTC HELP DESK
- cannot think of anything at this time

Appendix E

Online survey: Qualitative Analysis Question 15 – "Other" Responses

	Frequency	Percent
• Again knowing others in the class.	1	.5
• having a hybrid class	1	.5
• I have done previous self-study education	1	.5
• i just did what i had to do to pass	1	.5
• instruction introduction to course	1	.5
• learned about on my own.	1	.5
• Motivation	1	.5
• My daughter was a cvtc student	1	.5
• online layout in blackboard consistent throughout	1	.5
• requirement of the class	1	.5
• The other students taking the online class	1	.5
• weekend deadlines for "non-trads"	1	.5
Total	12	6

Appendix F: Online Survey Qualitative Analysis Question 16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		9	64.3	64.3	64.3
	Fewer hours at work	1	7.1	7.1	71.4
	Had to many healthy problem	1	7.1	7.1	78.6
	I had a baby this sememster/ran out of time	1	7.1	7.1	85.7
	more personal time	1	7.1	7.1	92.9
	the computers in labs would work with materials	1	7.1	7.1	100.0
	Total	14	100.0	100.0	