A Study Identifying Attitudes towards Blackboard Tools

Among Faculty and Adult Distance Learners at

Waukesha County Technical College

By

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ABSTRACT

This study builds on a survey conducted by the Wisconsin Technical College System that determined 35,000 students took more than 173,000 credits of online courses through Wisconsin Technical Colleges in 2008. This number indicates online learning at post secondary technical colleges in Wisconsin rose to 8% of all credit hours taken by students (Foy & Woodward, 2008). The purpose of this study was to identify how instructors are implementing Blackboard™ technology into their online courses and the tools used to deliver course content to adult distance learners. This research explored the Blackboard™ technology web tools currently being utilized

at Waukesha County Technical College to deliver online course content. Emphasis of this study was placed on the students' perceptions of the Blackboard™ tools utilized during their online course to identify challenges and opportunities for improving the quality of online education at WCTC. Also important in this study was to identify how instructors are implementing Blackboard™ technology into their online courses and the tools used to deliver course content to adult distance learners. To accomplish the research goals, two questionnaires were administered during the spring 2010 semester at WCTC. One questionnaire was completed by the online instructors at WCTC and the other was completed by the students of those online courses at WCTC. This study provides a review of literature regarding online education followed by the findings of this study along with recommendations for further research. This study will aid practitioners and policy makers in making informed decisions regarding usage of the Blackboard Learning System™ to deliver online course content at WCTC.

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Chapter I: Introduction

Background

Electronics are changing the pedagogy of adult education. The traditional classroom offers the same information and learning material to all students. Using the Internet and Web 2.0 learning tools, the information can be tailored to each student providing a more student-centered, constructivist method of learning (Dlab & Hoic-Bozic, 2009). According to ASTD's 2008 *State of the Industry Report,* one-third of education is administered electronically (Rossett & Marshall, 2010). Technology is inherent in the delivery of information to adult distance learners with many colleges now offering online courses as an alternative to the traditional classroom to fulfill program requirements. Although students work from their individual locations instead of coming to a traditional classroom, they are not working alone. Web tools have allowed educators to incorporate collaborative learning that is meaningful to the learner. Collaborative learning can be defined as students working together in groups to acquire information and achieve common learning goals (Barkley, Cross, & Major, 2005).

Distance learning is a method of teaching and learning utilizing current technological tools so that the instructor and students do not need to be in the same room for learning to take place (O'Lawrence, 2006). Sixty-seven percent of colleges agreed that distance learning is a significant development and sensible method for providing learning opportunities to anyone, at anytime and anywhere (Ernst, 2008). According to a survey conducted by the Wisconsin Technical College System, 35,000 students took more than 173,000 credits of online courses through the Wisconsin Technical Colleges in 2008. This number indicates that online learning at post secondary technical colleges in Wisconsin rose to 8% of all credit hours taken (Foy &

Woodward, 2008). If a significant number of colleges agree that distance learning is a viable means of educating students, then what are the most effective E-tools for delivering course content through E-learning?

A well-qualified instructor, good course design and effective learning tools can offer engaging, collaborative distance learning for students (Clark, 2005). Distance learning is a self regulated form of taking responsibility for one's own learning. Self-regulated learning can be defined as 'the ability of learners to control the factors or conditions affecting their learning' (Dembo, Junge, & Lynch, 2006). The fundamental elements of self-regulated learning include cognition, meta-cognition and motivation. Self-regulated learning is common to the field of education (Andrade & Bunker, 2009).

It is also necessary to be aware of the challenges related to distance learning. Ladyshewsky (2004) stated online students must possess a high degree of autonomy and motivation (Coombs-Richardson, 2007). The most significant challenge is that some distance learners lack sufficient self-discipline and time-management skills (O'Lawrence, 2006). Another challenge of online learning is the lack of immediate feedback from an instructor. Students must wait to have questions answered until the instructor logs back onto the computer versus an immediate response in the traditional classroom. Problems with technology can also pose an issue for some adult learners.

Blackboard Incorporated provides a course management system that organizes online educational course content (Bradford, Porciello, Balkon, & Backus, 2007). The Blackboard Learning System™ allows instructors to develop and organize course content, communicate with students and assess students' performance. There are many benefits to using a course management system such as Blackboard. The benefits of this software include; increased

availability of course content, enhanced communication between instructor and student, tracking student progress, and building skills. Blackboard software is used by more than 70% of colleges and universities across the United States (Bradford, Porciello, Balkon, & Backus, 2007).

Waukesha County Technical College (WCTC) in Pewaukee, Wisconsin currently offers 199 distance learning courses in a wide variety of programs using the Blackboard management system. The number of distance learning courses at WCTC increased 15% over the 2008-2009 school years. More students favor the online delivery of course content to fit into their busy schedules, according to a recent survey of technical college online students (Foy & Woodward, 2008). Because more courses are being offered online at WCTC, it is critical to understand the most effective online Blackboard tools to aid learning. By understanding the appropriate Blackboard delivery tools available for online education, one can create course curriculum that is both collaborative and constructive. New technology may also reduce some of the challenges mentioned of distance learning. For example, using a Blackboard tool that allows for synchronous learning might allow students to have their questions answered immediately.

Statement of the Problem

Distance learning is rapidly expanding as a means to educate adult learners. There has been minimal research administered examining the use and effectiveness of distance education technologies in an effort to best utilize these technologies in education (Zhang, 1998). A critical challenge for online educators is to understand which web technologies to utilize to effectively deliver course content (Chapman & Knapczyk, 2003). At WCTC the online format mode of instruction is becoming increasingly popular. It is imperative to study the current Blackboard tools being utilized to deliver course content in an effort to understand the best technological tools that encourage student-centered learning for distance courses. WCTC needs to determine

how instructors use Blackboard and how the students view the use of Blackboard in online courses. This research explored the Blackboard technology web tools utilized at WCTC to deliver online course content. The students' perceptions of the Blackboard tools were also examined to identify challenges and opportunities for improving the quality of online education at WCTC.

Purpose of the Study

The purpose of this study was to identify Blackboard tools used for delivering course content to distance adult learners in online courses. This research explored the Blackboard technology web tools currently being utilized at WCTC to deliver online course content. The students' perceptions of the Blackboard tools were also examined to identify challenges and opportunities for improving the quality of online education at WCTC. This study also identified the students' perceptions of Blackboard aiding in meeting their course competencies and delivering course information. In addition, any issues students may have experienced using Blackboard tools may also be identified.

Research Questions

This research addressed the following research questions:

1. What online Blackboard tools are currently being used to enhance online delivery at WCTC?
2. What issues do students at WCTC have relating to the use of Blackboard tools?
3. Do students at WCTC perceive the use of Blackboard tools helped them meet the course competencies?
4. What are the online students perceptions of the Blackboard technology utilized at WCTC?

5. What are student perceptions of the Blackboard tools based on demographics?

Importance of the Study

The study is important due to the increasing number of course currently being offered online. It will determine the most desirable technologies to deliver course content to students in a manner that promotes student-centered learning. By having a clear understanding of the outcome of this study, the administrators, curriculum developers and instructors at WCTC may gain valuable insight as the most effective tools for delivering online course content. The online courses offered at WCTC may become more student-centered, based on the constructivist learning theory and may increase the quality of the instruction.

1. The study will analyze Blackboard technologies currently being used at Waukesha County Technical College. The technologies identified will provide valuable information regarding instructional methods for WCTC instructors.
2. Data from this study may be used by instructors and departments to update courses that are currently being taught as distance learning courses and/or to develop courses not currently taught as a distance course.
3. Data from this study may be used to develop a template for creating distance learning curricula. This information could be utilized at other Wisconsin Technical Colleges as a model for effective online education.
4. Data from this study may be used to train faculty at WCTC who are unfamiliar with the Blackboard tools that are available.

Assumptions of the Study

In conducting this study, the following assumptions have been made:

1. The students who respond to the survey have completed at least one online course through WCTC.
2. The students who respond to the survey will answer honestly to the best of their ability.
3. Because the survey was administered at the end of the spring 2010 semester, the participants will have some familiarity with Blackboard technology utilized throughout their distance learning course.
4. The instructors are aware of the various Blackboard web tools available for teaching an online course.

Definition of Terms

To provide comprehensibility, the following terms have been defined:

1. *Asynchronous Learning:* "Learning in which there is no time requirement for transmission" (Merriam-Webster Online Dictionary).
2. *Autonomy:* "The state of being self-governing as it relates to learning" (Merriam-Webster Online Dictionary).
3. *Blackboard:* "Software that provides a course management system used for educational instruction, communication and assessment" (Bradford, Porciello, Balkon, & Backus, 2007).
4. *Collaboration:* "To work jointly with others together especially in an intellectual endeavor" (Merriam-Webster Online Dictionary).

5. *Constructivist:* "Brown, Collins and Duguid (1989) stated that knowledge is situated in the activity of the learner and knowledge is a product of the learner based on the context and culture in which the learning occurs" (Tobias & Duffy, 2009). The learner builds or "constructs" his or her own meaning.
6. *Distance Learning:* "Wahlstrom, Williams & Shea (2003) define this as any type of instruction in which the student and instructor are separated by physical distance (not in the same room)" (O'Lawrence, 2006).
7. *Learning:* "The knowledge or skill acquired by instruction or study" (Merriam-Webster Online Dictionary).
8. *Online:* "The act of being connected to, served by or available through a system and especially a computer or telecommunications system, such as the Internet" (Merriam-Webster Online Dictionary).
9. *Pedagogy:* "The profession of teaching" (Merriam-Webster Online Dictionary).
10. *Self-regulated:* "The ability of learners to control the factors or conditions affecting their learning" (Dembo, Junge, & Lynch, 2006).
11. *Student-centered:* According to the National Education Association (NEA), student-centered learning is shifting the focus away from the instructor and onto the student to allow the student to engage in more hands-on projects (Research Spotlight on Project Based Learning).
12. *Synchronous Learning:* "Learning taking place at precisely the same time" (Merriam-Webster Online Dictionary).
13. *Technology:* "The manner of accomplishing a task especially using the technical processes, methods or knowledge" (Merriam-Webster Online Dictionary).

14. *Tools:* "An instrument, apparatus or computer program used in performing an operation or necessary in the practice of a vocation or profession" (Merriam-Webster Online Dictionary).

Limitations of the Study

1. This study was restricted to the students who have taken at least one online course through Waukesha County Technical College. Distance learning students outside of WCTC was not included in this study.
2. The research utilized a survey that was developed by the researcher. The presence of the human element indicates that errors and omissions may be present and not intended by the researcher.
3. The survey results are limited to the opinions and answers disclosed by the respondents. Opinions and answers of the respondents may be influenced by external factors, such as attitudes about the course, attitudes about the instructor, or attitudes relating to course performance which were not included in this study.
4. The results of this study are related only to the students at Waukesha County Technical College and may not be applied to other Wisconsin technical colleges.

Chapter II: Review of Literature

Introduction

This research explored the Blackboard technology web tools currently being utilized at WCTC to deliver online course content. The students' perceptions of the Blackboard tools were examined to identify challenges and opportunities for improving the quality of online education at WCTC. The purpose of this study was to identify how instructors are implementing Blackboard technology into their online courses and the tools used to deliver course content to adult distance learners. This study also identified the students' perceptions of Blackboard aiding in meeting their course competencies and delivering course information. In addition, any issues students may be experienced using Blackboard tools are identified.

Self-regulated learning is common to the field of education (Andrade & Bunker, 2009). Distance learning is a self-regulated form of taking responsibility for one's own learning. Technology has allowed for the increased use of distance learning as a method of transferring course content from the instructor to the learner. The technologies used to connect instructors to their students and students with each other have become relatively inexpensive and easy to use (Herlihy, 2007).

Recent advancements in technology have allowed for learning and teaching to take place at a distance. Moore & Kearsley (2005) have established that the success of online education is determined by the structure, quantity and quality of communication between instructor and learner (Lee & Rha, 2009). The Blackboard Learning System is a tool that provides structure for online educators and learners (Larkin & Belson, 2005). Blackboard tools provide the structure to guide activities, offer assessment feedback and create meaningful interaction and discussions.

This literature addresses online education and the characteristics of the online learner in addition to the growth of distance education. The Blackboard Learning System™ is defined along with the advantages and limitations of using this technology to deliver course content.

History of Distance Learning

Distance learning has been around for hundreds of years and originated as a means to educate students that were disconnected by distance (Distance Learning Net). The original concept of distance learning was the learned material would be sent through the mail and known as correspondence study. The University of Wisconsin-Madison is credited with offering the first distance courses through correspondence study in 1891 (Wisconsin-Madison). Even dating back to 1907, UW-Madison began offering its first adult education program via radio broadcast (Wisconsin-Madison).

By the 1960s, the Carnegie Foundation funded UW-Madison which allowed the university to become the worldwide leader in distance education (Distance Learning Net). This funding allowed UW-Madison to utilize a variety of communication tools to educate students from a distance, being off-campus. Colleges and universities around the world would imitate this method of educating students who could not attend the traditional classroom (Distance Learning Net). The development of the Internet has allowed for global communication and a major contributor to the growth in online education (Longo & Magnolo, 2009). According to one study nearly all types of institutions of higher learning have shown considerable growth in their offerings of online courses (Allen & Seaman, 2007). This study also noted that two-year associate's degree institutions have the highest growth rates in online education and account for one-half of all online enrollments (Allen & Seaman, 2007).

Characteristics of Online Learners

A substantial amount of research has been conducted on the characteristics of online learners. Based on this research, successful online learners need to possess many self-management characteristics (Andrade & Bunker, 2009). In addition, one core characteristic necessary to be successful in a distance education course is motivation (Bown, 2006; Harlow, 2007; Hurd, 2000, 2006; Poon, 2003; Thang, 2005; Vanijdee, 2003). Other important characteristics of online learners include: goal setting, interaction, enthusiasm, persistence, confidence, and risk taking (Hurd, 2000; Vanijdee, 2003). Meta-cognitive skills such as planning, monitoring, and reflecting on one's learning are also advantageous to ensure the success of the online learner. Students who take responsibility for their own learning are most likely to be successful in an online course (Andrade & Bunker, 2009).

Growth of Online Learning

The explosion of online offerings by various institutions continues to increase. According to the Sloan survey, in the fall of 2006 there were nearly 3.5 million online students, which was an increase in online students of 9.7% over the previous year (Allen & Seaman, 2007). Enrollment in degree granting institutions is projected to grow throughout 2018 due to the increased population of 25 to 29 year olds (Education, 2009).

There are many factors that contribute to the growth of online education. One factor is the student demand for online courses and programs. Another factor is the institutions need to access students and the Internet provides a means to connect to students which in turn contributes to the increased course offerings. Online learning also provides the institution a method for attracting students from outside of their traditional service area (Allen & Seaman, 2007). The Internet allows people from all over the world to connect to one another making the service area of an institution more global (Foy & Woodward, 2008). Continuing education and professional development are also key components to the growth in online education (Allen & Seaman, 2007).

History of Blackboard Technology

Blackboard Learning System™ is a course management system used to organize course content (Larkin & Belson, 2005). This market-leading course management system is available in a variety of languages making this tool useful in a global capacity. Blackboard allows course content, such as a syllabi, assignments and supplemental course documents to be immediately available to students taking an online course. This tool also allows instructors and students the ability to communicate through email as well as through online chats. These online chats allow for synchronous learning providing instructors to immediately answer student questions. This feature debunks the disadvantage of lag-time between the traditional classroom and a distance course. The live chat feature can provide the instructor with a mode of asking open-ended, probing questions that allows the students to deeply understand course content (Larkin & Belson, 2005). The chat feature available through the Blackboard Learning System accommodates a variety of individual learning styles.

Moore's theory of distance education requires three key components: dialogue, structure and learner autonomy (Andrade & Bunker, 2009). Blackboard technology provides a system to enhance dialogue through the communication tools available to both instructor and learner. This technology also supports the structural framework for course content. The course information can be organized under sub-headings making it easily accessible to students. Lastly, learner autonomy is encouraged through the use of Blackboard technologies, especially through the use of the discussion board tool. This technology allows the autonomous learners to collaborate with peers and the instructor while still taking a proactive approach to learning (Dembo, Junge, & Lynch, 2006).

Advantages of Blackboard

Studies show distance learning provides the same high quality of instruction as traditional methods of classroom teaching (O'Lawrence, 2006). The online format mode of instruction provides many advantages to its users over the traditional classroom. Flexibility is one of the main reasons students prefer an online course over the traditional classroom. Students have the ability to complete their work on a time schedule that is flexible around their jobs and family commitments and still interact with the other students in their course. Distance learning provides a student-centered learning environment where the student has control over their learning environment. Another advantage is the use of online tools allows the students to learn the lecture portion of the course individually, which allows the instructor to provide more collaborative learning throughout the modules of the course (O'Lawrence, 2006).

Summary

Distance learning is a self-regulated form of taking responsibility for one's own learning. Technology has allowed for the increased use of distance learning as a method of transferring

course content from the instructor to the learner. Blackboard Learning System™ allows course information and documents to be immediately available to students taking an online course. Previous studies have indicated the many advantages of using the Blackboard Learning System™ to deliver course content. Online enrollment continues to increase as students crave flexibility in obtaining an education and learning new skills. This research explored the Blackboard technology web tools currently being utilized at WCTC to deliver online course content.

Chapter III: Methodology

This research explored the Blackboard technology web tools currently being utilized at WCTC to deliver online course content. The students' perceptions and faculty perceptions of the Blackboard tools were also examined to identify challenges and opportunities for improving the quality of online education at WCTC. The purpose of this study is to identify how instructors are implementing Blackboard technology into their online courses. This study also identified the students' perceptions of Blackboard aiding in meeting their course competencies. In addition, any issues students may have experienced using Blackboard tools were also be identified. The methods and procedures used in this study of Blackboard tools are explained in this chapter under the headings of research design, sample selection, instrumentation, procedures and data analysis.

Research Design

This research study was descriptive and a survey methodology was administered to gather data regarding the attitudes toward Blackboard tools among adult distance learners at Waukesha County Technical College during the spring of 2010. The variables in this study were the student's attitudes regarding the use of Blackboard software in an online course and the Blackboard tools utilized by online instructors to deliver course content.

Subject Selection and Description

The research for this study was conducted at Waukesha County Technical College located in Pewaukee, Wisconsin. A sample of students who were enrolled in at least one online course at WCTC during the spring of 2010 was surveyed to inquire about their perception of the Blackboard tools that were utilized throughout their online experience. During the spring 2010 semester at WCTC, there were 1,064 students enrolled in at least one online course. There were 52 instructors teaching those online courses using Blackboard technology to deliver course content. Demographical data was also collected to identify any correlation between the types of learners and the course tools. Data was collected from 26 faculty members at Waukesha County Technical College and 188 students who participated in at least one online course during the spring 2010 semester.

Instrumentation

The subjects of the study were students from WCTC who have completed at least one distance learning course. The instrument created by the researcher was a survey to inquire about the demographics of the subjects as well as their perceptions of the Blackboard web tools that were utilized to deliver the course content of the online course they completed. The researcher analyzed the results of the survey to determine the most effective Blackboard tools for delivering course content. Data was complied and included in this paper along with any recommendations for improving the delivery methods of online course curriculum and possibilities for further research.

Two questionnaires were administered to gather data identifying the attitudes toward Blackboard tools utilized in distance learning courses. The first questionnaire

(see Appendix A) was used to gather data from online instructors to determine the Blackboard tools most frequently used by instructors to deliver course content. The survey included statements related to different features of Blackboard tools (i.e. ease of accessibility, downloading, file type and compatibility). The instructor questionnaire featured a four-point Likert scale to compile data regarding the instructors' attitude toward Blackboard tools. The respondents were asked to rate their agreement with the statements, such as strongly agree, agree, disagree, and strongly disagree. Demographic information was compiled relating to gender and employee status of the instructor. The second questionnaire (see Appendix B) was used to gather data from the students who were enrolled in an online course at WCTC in the spring of 2010. This questionnaire also featured the same four-point Likert scale to gather data regarding the students' attitude toward their use of Blackboard tools related to learning. Demographic information was gathered to identify the students' age, status and gender.

Table 1

Research Questions Related to Survey Questions

Research Question	Survey Question
1.What online Blackboard tools are currently being used to enhance online delivery at WCTC?	8, 9
2. What issues do students at WCTC have relating to the use of Blackboard tools?	7, 10, 11
3. Do students at WCTC perceive the use of Blackboard tools helped them meet the course competencies?	12, 13
4.What are the online students perceptions of the Blackboard technology utilized at WCTC?	6, 14, 15
5.What are student perceptions of the Blackboard tools based on demographics?	1, 2, 3, 4, 5

Data Collection Procedures

The surveys were developed using the Qualtrics Software™ and delivered via email through the Blackboard system at WCTC. UW-Stout IRB approval was obtained on May 6, 2010 and WCTC IRB approval was obtained on May 7, 2010. Upon approval, WCTC provided a listing of email addresses of the faculty teaching an online course as well as the students enrolled in an online course during the spring semester of 2010. The surveys were implemented at the end of the spring 2010 semester via email. The online surveys were available to faculty and students throughout a ten-day period beginning on May 8, 2010 and ending on May 18, 2010. A follow-up reminder email was delivered three days after the introduction of the survey. Potential

respondents were told via email that their participation in the survey is voluntary (see Appendix C), and that their information would be kept confidential and their identity will not be related to the data in any way. The email contained a brief overview of the questionnaire along with instructions on how to record their responses by clicking on the appropriate response. The respondents were asked to submit their questionnaire by clicking on the "submit" button after they have completed their survey. Beginning on May 8, 2010 the respondents had the ability to take as much time as needed to complete the survey. After the respondent submitted their response the data could not be withdrawn as it was an anonymous online survey. The research advisor reviewed the surveys to ensure face validity and content validity was established. The survey links were closed on May 18, 2010.

Data Analysis

The survey data was compiled and analyzed using the Qualtrics Software™ and simple descriptive statistics. The results were presented in the form of frequencies and percentages of the data exported. A chi-square analysis was used to determine if there were differences between male and female students and full and part-time instructors.

Chapter IV: Results and Discussion

This research explored the Blackboard technology web tools utilized at WCTC to deliver online course content during the spring 2010 semester. The students' perceptions of the Blackboard tools and how they aid in meeting course competencies were also examined. In addition, any issues students or faculty experienced using Blackboard tools were also identified.

This research study was descriptive and a survey methodology was administered to gather data regarding the attitudes toward Blackboard tools among adult distance learners and usage of tools among faculty at Waukesha County Technical College. Two questionnaires were administered to gather data identifying the attitudes toward Blackboard tools utilized in distance learning courses. The first questionnaire was used to gather data from online instructors to identify the perceptions and issues related to Blackboard technology. Of the 52 instructors teaching an online course during the spring semester of 2010, 26 WCTC faculty members participated in the online survey. The response rate of the instructor participants was 50%. The survey was also used determine the Blackboard tools most frequently used by instructors to deliver course content. The second survey was administered to gather data regarding the student's perceptions of the Blackboard tools along with any issues the students had experienced with the delivery of course material through Blackboard. Of the 1,064 students taking an online course through WCTC during the spring 2010 semester, 188 students participated in the online survey. The response rate of the students who participated in the study was 6%. The results of these surveys related to the research questions follow.

One of the questions in the research study dealt with the demographics of the online faculty. To answer this question, instructors were asked "what is your official appointment for

teaching is at WCTC?" The instructors recorded their answers on the survey and their responses were counted.

Table 2

Instructor Demographics

Teaching Appointment	Frequency	Percent
Part Time	15	58
Full Time	11	42
Totals	26	100

The findings of the demographical questions indicate that nearly half (11 or 42%) of the online instructors were full time employees at WCTC, while just over half (15 or 58%) of the instructors were adjunct instructors.

The next research question addressed the voluntary Blackboard training that is offered to WCTC faculty. The instructors were asked if they participated in the voluntary Blackboard training. Table 3 depicts the results.

Table 3

Attendance of Voluntary Blackboard Training Provided by WCTC

Attended Training	Frequency	Percent
No	15	58
Yes	11	42
Totals	26	100

Nearly half of the instructors (11 or 42%) participated in the training while just over half (15 or 58%) of the instructors neglected to attend the Blackboard training.

Another research question related to demographics asked the instructors to select the center of excellence in which they currently teach their online course. The responses are shown in Table 4.

Table 4

Instructor Center of Excellence

Program	Frequency	Percent
Business & IT	12	50
Education & Human Services	11	46
Nursing & Allied Health	1	4
Totals	24	100

Data in Table 4 represents the programs in which the majority of online courses are currently being taught. The majority of the subjects surveyed (12 or 50%) teach in the Business and IT program or the Education and Human Services program (11 or 46%). During the spring semester of 2010, there were no courses being taught in the following programs: Electronics and Engineering, Hospitality and Culinary, Printing and Graphics, Protective Services, Skilled Trades and Barber and Cosmetology.

Next, it was critical to understand which Blackboard tools are being used to deliver online course content. The instructors were given a list of Blackboard tools and they were asked to mark the Blackboard tools they use in their online courses. The responses are categorized in Table 5.

Table 5

Blackboard Tools Used by Instructors

Blackboard Tools	Frequency	Percent
Announcements	25	96
E-Mail	23	88
Content	21	81
Discussion Board	21	81
Contact	17	65
External Web Links	15	58
Quizzes	14	54
Other	12	46
Groups	5	19
Drop Box	5	19

An overwhelming majority (25 or 96%) of instructors utilized the announcement function to relay information to their students. Additional Blackboard tools that were frequently used include: e-mail (23 or 88%), content (21 or 81%), discussion board (21 or 81%), and contact (17 or 65%). None of the respondents used virtual class and few instructors (5 or 19%) used the group collaboration function and the drop box function. Several instructors commented on other tools they frequented used within Blackboard that include the grade center and assignments. A minority of faculty members listed other Blackboard tools in the open ended response question which were implemented into their course and included: wikis, blogs and class web pages.

The research question inquiring about which Blackboard tools the online instructors used also related to the file types the instructors utilized within the Blackboard course site. Instructors were given a list of file types and asked to mark the file types used for the delivery of their online course content. Responses are listed in Table 6.

Table 6

Instructor File Types Used Within Blackboard Course Site

File Types	Frequency	Percent
Microsoft Word	25	96
PowerPoint	23	88
Adobe Acrobat	15	58
Excel	14	54
Images	14	54
Video	10	38
Audio	3	12
Other	3	12
I am not certain	1	4

Virtually all of the instructors (25 or 96%) used Microsoft Word and PowerPoint to deliver their online course content. Approximately one half of the instructors used Excel (14 or 54%), Adobe Acrobat (15 or 58%) and images (14 or 54%) throughout the spring 2010 semester. Very few respondents (3 or 12%) used audio file types and only one-third (10 or 38%) incorporated video file types within the Blackboard course site. Few instructors posted additional file types in

the open-ended response question in which they included into their online course included: web links and Adobe Presenter.

The next set of survey questions related to the research question inquiring about the instructor's perceptions of Blackboard tools. The instructors were asked if they felt Blackboard was easy to use, if Blackboard helped to facilitate student learning, and if they felt the students found Blackboard was easy to use. Lastly, the instructors were to rate their overall satisfaction with Blackboard. This series of questions attempted to identify the respondent's perceptions of Blackboard technology used to deliver their online course content.

Table 7

Instructor Perceptions of Blackboard Tools

Response	SA (N) %	A (N) %	D (N) %	SD (N) %
I find Bb easy to use.	(4) 15	(20) 77	(1) 4	(1) 4
Bb's tools can be used to facilitate student learning.	(3) 12	(18) 69	(5) 19	(0)
I feel that students find Bb easy to use.	(0)	(20) 77	(6) 23	(0)
I feel I had the appropriate technology skills to teach an online course.	(15) 60	(8) 32	(0)	(2) 8

Upon reviewing the data, notice that the majority of the instructors (20 or 77%) surveyed found Blackboard easy to use and they (18 or 69%) felt this technology facilitated student learning. Three-quarters (20 or 77%) of the population felt that the students found Blackboard easy to use. Nearly all (24 or 92%) of the instructors felt they had the appropriate technological skills necessary to begin teaching an online course.

Another area of interest regarding Blackboard tools related to the issues instructors faced while using Blackboard technology to deliver course content. Therefore, the faculty was asked

several questions relating to issues experienced while using this technology. The responses are shown in Table 8.

Table 8

Instructor Issues with Blackboard Tools

Response	SA (N) %	A (N) %	D (N) %	SD (N) %
I was easily able to access my course information using Bb.	(6) 23	(16) 62	(4) 15	(0)
I was easily able to upload course content into Bb.	(5) 19	(16) 62	(4) 15	(1) 4
The files types used for course content were compatible with my computer.	(10) 38	(14) 54	(1) 4	(1) 4
I have been adequately trained on Bb tools.	(12) 46	(9) 35	(3) 12	(2) 8
The Bb support staff at WCTC provides timely and adequate assistance.	(4) 16	(19) 76	(2) 8	(0)

According to the data, the very few respondents (4 or 15%) reported issues with accessing their Blackboard course information. Most instructors (21 or 81%) were easily able to upload course content into Blackboard and very few respondents (2 or 8%) had compatibility issues with their computer. The majority (81%) of instructors felt they have been adequately trained on how to use Blackboard tools. An overwhelming majority (23 or 92%) of instructors felt the Blackboard support staff at WCTC offered adequate and timely assistance as needed throughout the semester.

Several research questions also pertained to the student's perceptions, issues and demographics relating to Blackboard tools for the delivery of online course content. These research questions were addressed in the survey administered to the students who were enrolled

in an online course at WCTC. First, the demographics of the students enrolled in an online course at WCTC during the spring of 2010 were considered and the results are depicted in Table 9.

Table 9

Student Demographics

Gender	Frequency	Percent
Female	141	75
Male	47	25
Totals	188	100

Notice that three-quarters (141 or 75%) of the students enrolled in at least one online course during the spring 2010 semester were female students.

The next survey question identified the student's status relating to the demographics of the online student at WCTC. The results are shown in Table 10.

Table 10

Student Demographics

Student Status	Frequency	Percent
Full Time	94	50
Part Time	94	50

Data in the table indicates that the students' status of the respondents was equally divided (94 or 50%) between full time and part time status.

The age of the online student was also a key consideration when addressing the demographics of the student population. In an effort to identify the characteristics of the online

student, the participants were asked to indicate their age range. The results are depicted in Table 11.

Table 11

Student Demographics Based on Age

Response	Frequency	Percent
18-25	72	38
26-35	48	26
36-45	39	21
46-55	27	14
55 and above	2	1
Totals	188	100

Data in the table represents that nearly one-half (72 or 38%) of the respondents are between the ages of 18-25. More than one-quarter (48 or 26%) of the students enrolled in an online course at WCTC are between the ages of 26-35.

To clearly understand the demographics of the online student, it was important to ask the students to indicate the number of online course they have taken. Table 12 shows the number of online courses students have taken in the past including the online course they were currently enrolled in at WCTC.

Table 12

Number of Online Courses Taken by Students

Response	Frequency	Percent
1	66	35
2	43	23
6 or more	27	14
3	23	12
4	17	9
5	12	6
Totals	188	100

More than one-third (66 or 35%) of the students who participated in this study were taking their first online course through WCTC. Few respondents reported taking three (23 or 12%), four (17 or 9%), or five (12 or 6%) online courses. An interesting statistic is that 27 or 14% of the participants have taken six or more online courses.

The next series of survey questions sought to identify the Blackboard tools the instructors were utilizing to deliver the course content to the students. This information is critical to identify the tools the instructors were using in relationship to the Blackboard tools the students used throughout their online course at WCTC. A series of Blackboard tools were listed on the survey and the students were asked to check all of the Blackboard tools the instructor used during their online course at WCTC. The responses are categorized in Table 13.

Table 13

Student's Use of Blackboard Tools

Response	Frequency	Percent
Announcements	175	93
Discussion Board	162	86
E-Mail	160	85
Quizzes	107	57
Contact	99	53
Content	90	48
External Web Links	68	36
Groups	42	22
Drop Box	38	20
Other	29	15
Virtual Class	27	14

An overwhelming majority of the respondents noted that announcements (175 or 93%), discussion board (162 or 86%), e-mail (160 or 85%), and quizzes (107 or 57%) were used throughout their online course. Many of the students also utilized contact (99 or 53%), content (90 or 48%), and external web links (68 or 36%) while participating in their online course. Notice that few students used the drop box (38 or 20%) and the virtual class (27 or 14%) functions. A minority of students (29 or 15%) also added other Blackboard tools that they utilized such as: blogs, wikis and journals.

Also important to understand were the file types used by the instructor within the Blackboard delivery course system. Again, the students were given a list of file types and they were asked to check all file types that were utilized during their online course at WCTC in the spring semester of 2010. The results are shown in Table 14.

Table 14

File Types Used by Students

Response	Frequency	Percent
Microsoft Word	171	91
PowerPoint	119	64
Video	52	28
Excel	49	26
Adobe Acrobat	44	24
Images	37	20
Audio	18	10
I am not certain	8	4
Other	7	4
Instructor did not post links	1	1

The majority of students (171 or 91%) who were enrolled in at least one online course used the Microsoft Word file type. PowerPoint presentations (119 or 64%) were also frequently used to deliver course content. Few of the respondents reported using videos (52 or 28%), Adobe Acrobat (44 or 24%), and images (37 or 20%) during their online course. A minority of students (7 or 4%) also listed other file types such as You Tube, photos for exams, and movies.

While obtaining a better understanding of the online student at WCTC, the students were asked to rate their overall comfort level with computers in general at the time of their online course. Table 15 reveals the responses.

Table 15

Student's Comfort Level with Computers

Response	Frequency	Percent
Confident & experienced	120	64
Competent most of the time	58	31
Ok, sometimes nervous	10	5
Totals	188	100

Most of the respondents (178 or 95%) reported feeling confident and experienced with computers in general at the time of being enrolled in their online course at WCTC. Very few respondents (10 or 5%) reported being sometimes nervous using computers.

In addition to understanding the student's comfort level with computers, the participants were also asked their opinion of the student online orientation offered to WCTC online students. Table 16 indicates the responses.

Table 16

Student Online Orientation was Helpful in Getting me Started with my Online Course

Response	Frequency	Percent
Agree	87	46
Didn't view orientation	71	38
Strongly Agree	18	10
Disagree	9	5
Strongly Disagree	3	2
Totals	188	100

Interestingly, over one-half (105 or 56%) of the respondents reported that the student online orientation was beneficial in aiding the student with their online course. Also interesting is the fact that more than one-third (71 or 38%) of the students did not view the student online orientation.

The next research question sought to uncover the student's perceptions of Blackboard tools. Several questions on the survey related to perceptions and the students were to answer the questions using a Likert scale indicating that they strongly agreed, agreed, disagreed or strongly disagreed with the statement. Table 17 reveals the responses.

Table 17

Student Perceptions of Blackboard Tools

Response	SA (N) %	A (N) %	D (N) %	SD (N) %
I feel my learning was enhanced by using Bb tools.	(58) 31	(110) 59	(21) 11	(1) 1
I feel the instructor's use of Bb tools helped me master the course objectives.	(57) 31	(106) 57	(24)13	(3) 2

An overwhelming majority (168 or 90%) of students felt their online learning was enhanced by using Blackboard tools. The majority (163 or 88%) of students also felt the instructor's use of Blackboard tools helped in mastering the course objectives. Few respondents had negative perceptions (22 or 12%) regarding Blackboard tools related their learning and their ability to meet course objectives (27 or 15%).

To fully understand the student's perceptions of the Blackboard course delivery system used by WCTC faculty to teach online courses, the students were asked to rate their overall satisfaction with their online course. Table 18 reveals the responses.

Table 18

Student's Overall Satisfaction with Online Course

Response	Frequency	Percent
Satisfied	133	71
Neutral	42	22
Unsatisfied	13	7
Totals	188	100

Nearly three-quarters (133 or 71%) of the respondents were satisfied overall with the online course they took at WCTC. Few (42 or 22%) of the students had neutral feelings regarding their satisfaction with their online course. A very small percentage (13 or 7%) of respondents were unsatisfied overall with their online course.

Lastly, this research sought to identify any issues that students faced with Blackboard tools while taking their online course. The students were given a list of statements related to Blackboard issues and they were required to rate the issue using the same Likert scale previously used to identify the perceptions. The results are shown in Table 19.

Table 19

Student's Issues with Blackboard Tools

Response	SA (N) %	A (N) %	D (N) %	SD (N) %
I was easily able to access my course information.	(94) 50	(87) 46	(5) 3	(2) 1
I was easily able to download course content.	(72) 39	(99) 53	(16) 9	(2) 1
The file types used for course documentation were compatible with my computer.	(89) 48	(87) 47	(9) 5	(6) 3

According to the data, very few (2 or 1%) respondents reported issues with the Blackboard technology. An overwhelming majority (181 or 96%) of students were easily able to download and access course information. The file types used for course documentation were also compatible with the computers of the majority (176 or 95%) of respondents. Most students (171 or 92%) were easily able to download course content using the Blackboard Learning System™.

Chapter V: Summary, Conclusions and Recommendations

Summary

At Waukesha County Technical College the online format mode of instruction is becoming increasingly popular. It was imperative to study the current Blackboard tools being utilized to deliver course content in an effort to understand the best technological tools that encourage student-centered learning for distance courses. WCTC needed to determine how instructors use Blackboard and how the students view the use of Blackboard in online courses. This research explored the Blackboard technology web tools currently being utilized at WCTC to deliver online course information. The students' perceptions of the Blackboard tools were also examined to identify challenges and opportunities for improving the quality of online education at WCTC. The research questions of this study identified the faculty and student perceptions of Blackboard technology. Student and faculty issues surrounding the use of Blackboard technology to deliver and receive course content were also identified.

This research study was descriptive and a survey methodology was administered to gather data regarding the attitudes toward Blackboard tools among adult distance learners at Waukesha County Technical College. The dependent variable in this study was the student's attitudes regarding the use of Blackboard software in an online course. The dependent variable in this study was the Blackboard tools utilized by online instructors to deliver course content. The control variable in this study was the students that were enrolled in an online course at WCTC in the spring of 2010.

Two questionnaires were administered to gather data identifying the attitudes toward Blackboard tools utilized in distance learning courses. The first questionnaire was used to gather data from online instructors to determine the Blackboard tools most frequently used by

instructors to deliver course content. The survey included statements related to different features of Blackboard tools (i.e. ease of accessibility, downloading, file type and compatibility). The instructor questionnaire featured a four-point Likert scale to compile data regarding the instructors' attitude toward Blackboard tools. The respondents rated their agreement with the statements, such as strongly agree, agree, disagree, and strongly disagree. Demographic information was compiled relating to employee status and program of expertise of the instructor. The second questionnaire was used to gather data from the students who were enrolled in an online course at WCTC during the spring of 2010. This questionnaire featured the same four-point Likert scale to gather data regarding the students' attitude toward their use of Blackboard tools related to learning. Demographic information was also gathered to identify the students' age, status and gender.

Summary and Conclusions

WCTC is committed to providing high quality online education using the Blackboard Learning System™ to deliver course content. Based on the data collected, students and faculty were using many of the functions available through Blackboard to deliver their course content. The first research question aimed to identify the online Blackboard tools that were used to deliver course content at WCTC during the spring semester of 2010. The Blackboard Learning System™ is a tool that provides structure for online educators and learners (Larkin & Belson, 2005). Blackboard tools provide the framework to guide activities, offer assessment feedback and create meaningful interaction and discussions. According to the data, the WCTC faculty were using the announcement (25 or 96%), e-mail (23 or 88%), and content (21 or 81%) functions through Blackboard to structure their online courses. The data also revealed students primarily utilized the announcement (175 or 93%), discussion board (162 or 86%), and e-mail (160 or 85%) functions of the Blackboard Learning System™. The file types utilized within the Blackboard course site most frequently by WCTC instructors were Microsoft Word (25 or 96%), PowerPoint (23 or 88%), and Adobe Acrobat (15 or 58%). The students revealed the file types they most frequently used for course documents were Microsoft Word (171 or 91%), PowerPoint (119 or 64%), and Video (52 or 28%).

The most interesting data revealed the online file types used within the Blackboard site used by instructors indicated that very few instructors used audio (3 or 12%) file types online and only one-third (10 or 38%) incorporated video file types within their online course. Few of the student respondents reported using images (37 or 20%) and audio (18 or 10%) file types in their online course at WCTC.

The second research question addressed the issues and perceptions online instructors have at WCTC regarding Blackboard tools. According to the data, the instructors felt the Blackboard support staff at WCTC offered adequate assistance (23 or 92%) when needed and the file types used to deliver their course content was compatible (24 or 92%) with their computer. Few instructors (4 or 15%) at WCTC felt their Blackboard Learning System™ was difficult to access. Most instructors (21 or 81%) reported they were adequately trained on how to use Blackboard technology to deliver their course information. Few instructors (2 or 8%) felt they did not have the appropriate technology skills to teach an online course. Overall, the instructor's satisfaction with Blackboard technology was favorable.

The next research question focused on the issues and perceptions the students had pertaining to the use of Blackboard tools to complete their online course. An overwhelming majority (168 or 90%) of students felt their online learning was enhanced by using Blackboard tools. The majority (163 or 88%) of students also felt the instructor's use of Blackboard tools assisted in mastering the course objectives. Few respondents (25 or 15%) had negative perceptions regarding Blackboard tools related their learning. Overall, the students felt the Blackboard tools enhanced their learning and more than two-thirds (133 or 71%) of the respondents were satisfied overall with the online course they took at WCTC.

The last research question addressed the demographics of both the online student and the online instructor. The findings of the demographical questions indicated more than half (15 or 58%) of the online instructors were part time employees at WCTC. The demographical data also indicated the exact same percentage of instructors (15 or 58%) did not attend the Blackboard training provided by WCTC. The instructor demographical data also indicated half (12 or 50%)

of the online courses offered at WCTC during the spring 2010 semester were in the Business and Information Technology programs.

The student demographical data was different. The majority (141 or 75%) of the students enrolled in at least one online course during the spring 2010 semester were female students. Another interesting fact related to student demographics revealed half (94 or 50%) of the students who participated in taking an online course were enrolled as a full time student and (94 or 50%) were completing their degree on a part time basis. More than one-third of students (72 or 38%) who were enrolled in an online course at WCTC during the spring 2010 semester were between the ages of 18-25. Lastly, the data also indicated as the age of the student increased, the percentage of students taking an online course at WCTC within those age brackets decreased.

Recommendations

The following are recommendations related to this study:

1. Faculty may utilize more Blackboard tools and file types incorporated within the Blackboard Learning System™ if they have exposure to them. Data revealed few (5 or 19%) of instructors utilized the group function during the spring 2010 semester. The group function can be a tool for collaborative work among students and should be considered when delivering course content. Data also indicated one-third (10 or 38%) of instructors incorporated video into their online course and few (3 or 12%) instructors utilized audio file types to deliver course information. Using audio and video file types may be beneficial to addressing the needs of all types of learners to deliver course content.
2. Incorporating more Blackboard tools into the curriculum could enhance student learning. Data revealed more than half (15 or 58%) of online WCTC faculty did not

attend the voluntary training related to online instruction provided by WCTC. Training for instructors on how to implement and incorporate the Blackboard tools may assist all student learners in achieving the established course objectives.

3. WCTC could incorporate the online student orientation into the course content to encourage more online students to take advantage of this resource. Data revealed more than one-third (71 or 38%) of students taking an online course during the spring 2010 semester did not view the online orientation. Students may also need more training on some of the more advanced Blackboard tools. Data indicated that several (8 or 4%) of online students were not certain of the file types they used during their online course.
4. Consider offering online training for students, including the non-traditional learner. Based on the demographics of the respondents, the majority of students (72 or 38%) were enrolled in an online course were younger (18-25) in age. By increasing the comfort level of non-traditional learners with Blackboard technology, they may be more likely to enroll in online courses.
5. Consider making the Blackboard training mandatory for all online instructors regardless of their part time or full time appointment. According to the data, more than half (15 or 58%) of the online instructors were part time employees at WCTC. The demographical data also indicated the exact same percentage of instructors (15 or 58%) did not attend the Blackboard training provided by WCTC.
6. WCTC could offer more online courses in a variety of programs throughout the institution. The instructor demographical data also indicated half (12 or 50%) of the online courses offered at WCTC during the spring 2010 semester were in the Business

and Information Technology programs. WCTC may be more likely to increase online enrollment by offering more online courses in a broad range of programs.

The number of distance learning courses at WCTC increased 15% over the 2008-2009 school years. More students favor the online delivery of course content to fit into their busy schedules, according to a recent survey of technical college online students (Foy & Woodward, 2008). Because more courses are being offered online at WCTC, it is critical to understand the most effective online Blackboard tools to aid learning. By understanding the appropriate Blackboard delivery tools available for online education, one can create course curriculum that is both collaborative and constructive. These training and awareness recommendations will allow WCTC to continue to grow its' online course offerings and continue to offer high quality education to all online students.

Recommendations for Further Study

Upon completing this study, some areas that revealed a need for further investigation include; training of faculty and students, the best practices for training students including non-traditional students, and continued research on the technological tools used to deliver online course content. For example, a study could be conducted to identify the best training practices for both faculty and students. Another study could investigate how to best train non-traditional students to increase their confidence with technology. Lastly, as technology improves, research of the technological tools will further enhance online education to include all programs of instruction. These recommendations for further study will allow the growth of online education to continue and provide high quality education to the customers of higher education.

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Appendix A

Faculty Online Survey

What is your official appointment for teaching at WCTC?

- ○ Full-time
- ○ Part-time

Please select the center of excellence in which you currently teach:

- ○ Business & IT
- ○ Education, Interior Design & Human Services
- ○ Electronics & Engineering
- ○ Hospitality & Culinary
- ○ Nursing & Allied Health
- ○ Printing & Graphics
- ○ Protective Services
- ○ Skilled Trades
- ○ Barber/Cosmetology Academy

I find Blackboard easy to use.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

I was easily able to access my course information using Blackboard throughout this semester.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

I was easily able to upload course content into Blackboard.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

Which of the following Blackboard tools do you currently use in your on-line courses? (Check all that apply)

- ☐ Announcements
- ☐ Contact
- ☐ Content
- ☐ E-mail
- ☐ Discussion Board
- ☐ Virtual Class
- ☐ Groups
- ☐ Quizzes
- ☐ Drop Box
- ☐ External Web Links
- ☐ Other
- ☐ Other

Which of the following file types have you used for course content within your Blackboard course site? (Check all that apply)

- ☐ Microsoft Word (.doc, .dox)
- ☐ PowerPoint (.ppt)
- ☐ Excel (.xls)
- ☐ Adobe Acrobat (.pdf)
- ☐ Images (.jmp, .jpeg or other)
- ☐ Video (.wav or other)
- ☐ Audio (mp3 or other)
- ☐ Other
- ☐ Other
- ☐ I do not post any files or links on my Blackboard course site
- ☐ I am not certain

The file types utilized for course content were compatible with my computer.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

I feel that students find Blackboard easy to use.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

Blackboard's tools are user friendly and can be used to facilitate student learning.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

I chose to attend the voluntary Blackboard training provided by WCTC.

- ○ Yes
- ○ No

I feel that I had the appropriate technology skills necessary to begin teaching an on-line course this semester.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

I have been adequately trained on the Blackboard tools that I utilize to deliver the on-line course content.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

I would like more training on the following Blackboard tools: (check all that apply)

- ☐ Announcements
- ☐ Contact

- ☐ Content
- ☐ E-mail
- ☐ Discussion Board
- ☐ Virtual Class
- ☐ Groups
- ☐ Quizzes
- ☐ Drop Box
- ☐ External Web Links
- ☐ Other
- ☐ Other

The Blackboard support staff at WCTC provides timely and adequate assistance.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

Rate your overall satisfaction with Blackboard as a tool to deliver your on-line course content.

- ○ Very Satisfied
- ○ Satisfied
- ○ Dissatisfied
- ○ Very Dissatisfied

What technologies would you like to see utilized for the delivery of on-line courses at WCTC?

- ○ Please describe
- ○ Please describe
- ○ Please describe
- ○ I do not know
- ○ No additional technologies

Appendix B

Student Online Survey

What is your gender?

- ○ Male
- ○ Female

What is your status as a student?

- ○ Full-time
- ○ Part-time

What is your age range?

- ○ 18-25
- ○ 26-35
- ○ 36-45
- ○ 46-55
- ○ 55 and older

How many on-line courses have you taken including the one(s) you are taking this semester at WCTC?

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6 or more

Rate your comfort level with computers in general at this time.

- ○ Confident and experienced
- ○ Competent most of the time
- ○ OK, sometimes nervous
- ○ I avoid the computer, it is all new to me

If you participated in the on-line orientation, I feel it was helpful in getting me started with my on-line course(s) at WCTC.

- ○ Strongly Agree
- ○ Agree

- ○ Disagree
- ○ Strongly Disagree
- ○ I did not view the on-line orientation

I was easily able to access my WCTC course information using Blackboard technology.

- ○ Strongly Agree
- ○ Agree
- ○ Disagree
- ○ Strongly Disagree

What Blackboard tools did your instructor utilize during your on-line course at WCTC? (Check all that apply)

- ☐ Announcements
- ☐ Contact
- ☐ Content
- ☐ E-Mail
- ☐ Discussion Board
- ☐ Virtual Class
- ☐ Groups
- ☐ Quizzes
- ☐ Drop Box
- ☐ External Web Links
- ☐ Other
- ☐ Other

Which of the following file types did the instructor use for documents in your on-line course at WCTC? (Check all that apply)

- ☐ Microsoft Word (.doc, .dox)
- ☐ PowerPoint (.ppt)
- ☐ Excel (.xls)
- ☐ Adobe Acrobat (.pdf)
- ☐ Images (.jmp, .jpeg or other)
- ☐ Video (.wav or other)
- ☐ Audio (mp3 or other)

- ☐ Other
- ☐ Other
- ☐ The instructor do not post any files or links on my Blackboard course site
- ☐ I am not certain

I was easily able to download course content throughout the on-line course I am currently taking.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

The file types utilized for course documentation were compatible with my computer.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

I feel my learning was enhanced through the use of Blackboard's tools at WCTC.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

I feel the instructor's use of Blackboard tools helped me master the course objectives (as stated on the course syllabus).

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

Rate your overall satisfaction with the on-line course you are currently taking at WCTC.

- ☐ Satisfied
- ☐ Neutral
- ☐ Dissatisfied

What technologies would you like to see utilized in future of on-line courses at WCTC?

- ◯ Please describe
- ◯ Please describe
- ◯ Please describe
- ◯ I do not know
- ◯ No additional technologies

>>

Appendix C

Voluntary Participation and Confidentiality Statement

Consent to Participate in UW-Stout Approved Research

Title: A Study Identifying Attitudes towards Blackboard Tools Among Faculty and Adult Distance Learners at Waukesha County Technical College

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Description:
The study is important due to the increasing number of course currently being offered online. It will determine the most desirable Blackboard tools used to deliver course content to students in a manner that promotes student-centered learning.

By participating in this voluntary survey, you may be helping improve the use of Blackboard tools in future online courses at WCTC.

Risks and Benefits:
The risk involved would be similar to any voluntary survey one would take. This research would benefit WCTC as it would allow the institution to identify any issues with Blackboard tools being utilized for instruction. It would also provide knowledge if additional training is needed for online instructors or students. The information would also benefit curriculum development of future online courses at WCTC. Finally, the results would benefit future online students using Blackboard tools.

Time Commitment:
The expected time commitment for completing this online survey is approximately 5-10 minutes.

Confidentiality:
Your name will not be included on any documents. We do not believe that you can be identified from any of this information.

Right to Withdraw:
Your participation in this study is entirely voluntary. You may choose not to participate without any adverse consequences to you. You have the right to stop the survey at any time. Once you have completed the anonymous online survey, the data cannot be linked to you and cannot be withdrawn.

IRB Approval:
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:
Shelly Davis
262-502-9888
davisshe@uwstout.edu

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

Statement of Consent:
By completing the following online survey you agree to participate in the project titled, **A Study Identifying Attitudes towards Blackboard Tools among Faculty and Adult Distance Learners at Waukesha County Technical College.**

Appendix D

Human Subjects IRB Approval

STOUT
152 Voc Rehab Building
University of Wisconsin-Stout
P.O. Box 790
Menomonie, WI 54751-0790
715/232-1126
715/232-1749 (fax)

Date: May 6, 2010

To: Shelly Davis

Cc: Julianne Taylor

From: Sue Foxwell, Research Administrator and Human Protections Administrator, UW-Stout Institutional Review Board for the Protection of Human Subjects in Research (IRB)

Susan Foxwell

Subject: **Protection of Human Subjects in Research**

Your project, "*A Study Identifying Attitudes toward Blackboard Tools among Instructors and Adult Distance Learners at WCTC*" is **Exempt** from review by the Institutional Review Board for the Protection of Human Subjects. The project is exempt under **Category 1** of the Federal Exempt Guidelines and holds for 5 years. Your project is approved from **May 6, 2010**, through **May 5, 2015**.

Please copy and paste the following message to the top of your survey form before dissemination:

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46

If you are conducting an **online** survey/interview, please copy and paste the following message to the top of the form:

> **"This research has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46."**

Please contact the IRB if the plan of your research changes. Thank you for your cooperation with the IRB and best wishes with your project.

***NOTE: This is the only notice you will receive – no paper copy will be sent.**