

Strategies for the Development and Improvement of Online Education at

Wisconsin Indianhead Technical College in Superior

by

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A handwritten signature in black ink, appearing to read "Kat Lun", is written over a horizontal line.

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Abstract

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Abstract

The purpose of this study was to critically review and analyze research regarding online education and evaluate it in the context of how WITC in Superior can develop and improve online education. The research objectives sought to clarify the role and support of WITC to online education, determine what training and course orientation information is available to online education students and how it can be improved, identify what training is available to online education faculty and how it can be improved for course development and delivery, and understand what teaching strategies and techniques have been successful in online education at WITC. Five instructors were interviewed to provide information about these objectives.

The results revealed that WITC does have a commitment to online education as identified through the college technology plan and SOAR initiative and that while WITC does provide some support and training for students and instructors, more should be done in these areas to improve online education. Instructors also provided examples of instructional best practices currently used at the college.

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Chapter One - Introduction

Introduction

While distance learning has been around for over 150 years, online education through the Internet started its origins in the 1980's when digital technologies started to make communications via a modem possible. "By 1995, nearly 50% of higher education institutions engaged in some type of online learning" (Blackboard, Inc., 2000, p. 1). Today, it is difficult to find any institution of higher education that does not offer some form of online learning. This phenomena seems relatively new to many people because the Internet now provides more sophisticated and visible opportunities for delivery.

A white paper posted on Blackboard defined online education as "an approach to teaching and learning that utilizes Internet technologies to communicate and collaborate in an educational context. This includes technology that supplements traditional classroom training with web-based components and learning environments where the educational process is experienced online" (Blackboard, Inc., 2000, p.1). The term online education as defined by Blackboard will be used throughout this document because it is the definition most closely aligned with the usage of the majority of distance education at Wisconsin Indianhead Technical College (WITC).

It is clear that WITC understands the importance of online education because as early as 1996, when implementing the college's first technology plan, it was determined that "technology is not an option" for students, faculty or staff (Dahlberg, Eichman, Maki, Peterson, & Schullo, 2003, p. 3). At that time WITC began exploring ways to provide opportunities for alternate delivery (Urban, 2003). The college clearly understood that alternate delivery opportunities were needed not only by offering totally online courses but also by providing access to resources

outside of the classroom and enhancing classes through use of technology. As more instructors incorporate technology into traditional courses the distinction between traditional and distance education is disappearing (Dunn, as cited by Howell, Williams & Lindsey, 2003). As WITC faculty experimented with new technologies and technology related teaching methodologies, it became apparent that WITC needed a vision and a plan for providing consistent learning access (Urban, 2003). A task force developed a plan for implementation of 24/7 learning access into all WITC programs by the fall of 2006 (Dahlberg et al., 2003). Appendix A provides sections one through six of the implementation plan to provide an overview of this initiative. This initiative has since been renamed Student Online Accessible Resources (SOAR). Thus, online education at WITC refers to both online classes and face to face classes that are web-enhanced through the use of technology.

One only has to look as far as the eTech College of Wisconsin to see the enormous impact that online education is making in Wisconsin. Now eTech provides access to hundreds of technical college courses in the state from their website at <http://www.etechcollege.com>. They also regularly collect data from online course surveys to determine the effectiveness of those courses. The data from the Spring Semester 2003 survey indicated that more than 86% of students taking online courses through eTech college of Wisconsin would recommend online courses from the Wisconsin Technical College System to others (L. Eichman, WITC personal email, June 27, 2003). More detailed data from the Fall Semester 2002 survey found that

“as interests in online courses continue to grow, they are reaching a new segment of user who otherwise may not take a course through the technical college system. The findings suggested that online courses are attracting new, incremental students into the system and these students often enroll both in online and traditional classroom-based courses. The

chances are good that as the number of online learners increases, there is also an increase in students for traditional classroom-based courses” (Pike + Company, 2002, p. 4).

As one of the technical college districts involved in the eTech consortium, WITC shares in the success and continues to develop online courses. In the 1998-1999 school year, WITC served 59 online learners as compared to 657 in the 2001-2002 school year (M. Hansen, WITC personal email, June 24, 2003). Furthermore, WITC, like any other successful institution, continues to look for ways to improve education. This is reflected in the following strategic directions as advertised on the college website (WITC, 2003):

Assessment-WITC will use assessment results and strategies to continuously improve the learning process and effectiveness of all staff in meeting our goals.

Technology-WITC will use information technology to deliver, support and enhance learning, and effectively manage college operations.

Operational Effectiveness-WITC will implement strategies to continuously improve effectiveness and responsiveness to changing customer needs.

As WITC continues to develop online education, the effectiveness of courses must be considered. When evaluating online education, one thing to consider is the college’s assessment and improvement of quality in terms of student learning (Higher Learning Commission, 2000). Despite the exceptional results from the eTech surveys, other data also suggested that there was room for improvement. In the comprehensive data report through the fall of 2002, students responded that “eTech should continue to look for ways of improving online courses and students’/instructors’ experiences with them” (Pike + Company, 2002, p. 3). The survey suggested there were two main areas on which to focus, including adding additional online

courses and finding a way to incorporate a “peer learning” or “best practices” approach to showcase techniques used by successful instructors (Pike + Company, 2002).

WITC consists of four main campuses: Ashland, Rice Lake, New Richmond, and Superior. Of the four campuses, Superior has done the least development of online education courses and could learn from the experiences of instructors as they move to develop and implement more online courses. Quality has always been a key area of concern in any online course and some suggest that it is an area where web-based education often comes under heavy criticism. Aggarwal and Bento (2002) suggest that many schools are simply putting online web-education out there without enough planning in fear of being left behind. While the eTech research indicates this does not appear to be happening in Wisconsin technical colleges, it is still important for WITC Superior to step back and take advantage of knowledge that already exists within the college to develop and deliver the best courses possible.

Statement of the Problem

No research has been conducted to determine methods to develop and improve online education at WITC.

Purpose of the Study

The purpose of this study is to learn from the experiences of current WITC instructors. This research seeks to determine the best practices and teaching techniques used to develop and improve online courses, how training can be used to better meet the needs of instructors and students, and “how to create a knowledge and awareness for faculty to gain the competencies (knowledge, skills and attitudes) necessary to effectively design and teach online courses” (White, 2000, p. i).

Research Objectives

This study will address the following objectives:

1. Clarify the role and support of WITC to online education.
2. Determine what training and course orientation information is available to online education students and how it can be improved.
3. Identify what training is available for online education faculty and how it can be improved for course development and delivery.
4. Understand what teaching strategies and techniques have been successful in online education at WITC.

Significance of the Study

WITC Superior faculty needs assistance in making the transition to online education. Thought and awareness should go into how online education differs from the traditional classroom and how this affects learning. If instructors are only presented with Blackboard and asked to develop a course, there is a greater chance that there will not be much emphasis on the development of a learning community, which could help achieve learning outcomes more effectively (Palloff & Pratt, 2001).

The discovery of best practices and opportunities for improvement in online education at WITC should also have a positive impact on how students are taught in the classroom. As instructors find new techniques to develop effective learning communities, they may find that integration of those very techniques into the classroom will promote greater learning (Palloff & Pratt, 2001).

Definition of Terms

For ease of understanding, the following terms have been defined:

Blackboard -The course delivery software used by WITC.

Blackboard Facilitator-An instructor at each WITC campus that teaches Blackboard to instructors and acts as a campus Blackboard mentor.

Blackboard, Inc. – The company that develops, licenses, and supports Blackboard course delivery software.

Critical Thinking Conference-A three day conference held during Facilitating the Future which is designed to teach educators how to assist students to think critically (WITC, 2004).

eTech College of Wisconsin – The Wisconsin Technical College System’s distance education consortium (eTech College of Wisconsin, 2003).

Facilitating the Future-An annual professional development conference sponsored by WITC and two Wisconsin school districts that is designed to address changes in educational practices (WITC, 2004).

Student Online Accessible Resources (SOAR) – A WITC initiative that is intended to make resources for all courses easily accessible to students.

Web-enhanced course – A face to face course at WITC that utilizes Blackboard to offer additional learning tools and resources to students.

Wisconsin Indianhead Technical College (WITC) - WITC is an accredited public postsecondary educational institution serving Northwest Wisconsin (WITC, 2003).

Wisconsin Technical College System (WTCS) - The technical college system of Wisconsin, consisting of 16 individual technical college districts (WTCS, 2003).

Assumptions

This research assumed that surveyed instructors are aware of the various methods WITC uses to support online education, online learners and online instructors. It also assumes that instructors use successful instructional strategies in online education and continuously work to find ways to improve online courses. It is also assumed that the list of potential subjects provided by WITC for this study is complete and accurate.

Limitations

There are only a limited number of WITC instructors that meet the criteria to be included in the study. The instructors who were asked to participate were asked to do so during the summer, which is a time of year they are least likely to respond. The survey instrument was developed by the researcher and has not previously been tested. Finally, Blackboard facilitators were intentionally excluded from the study because they may have access to training and other information not necessarily available to the general population of online instructors.

Methodology

This study was conducted in an interview format to provide qualitative feedback. The interview only included instructors who have taught online education courses for at least two years or have taught a minimum of four online education courses. The study excluded campus Blackboard facilitators because they may have access to training, resources and information not necessarily available to all instructors. The intention of this exclusion is to obtain information from the perception and experiences of the typical instructor at WITC. The interviews were conducted over the telephone and were tape recorded and reviewed to ease data collection and ensure reliability.

Chapter Two – Review of the Literature

Introduction

This chapter focuses on information believed to affect the development and improvement of online education. It will begin with a discussion of the importance of institutional support, followed by the characteristics of online learners and the characteristics of effective online instructors.

Institutional Support

To continue to remain competitive and meet business needs in a technologically advanced society, an institution today has no choice but to offer some form of online learning. It certainly is not offered because it is cheaper. An Alfred T. Sloan Foundation study found that distance learning has proven to be no cheaper than a traditional education (National Education Association, 2002). Essentially, when everything is taken into account, universities are not losing or making much money on distance education. Much has also been discovered in recent years about how people learn and the importance of lifelong learning helps drive the need for online courses. Today's graduates are expected to have critical thinking skills, analytical skills, and the ability to work collaboratively (Palloff & Pratt, 2001). Students also have increased demands on time. All of these factors make online education a necessity.

So how do we make this happen? First of all, institutional support can and will drive the success of online learning. Many people are involved in the process of delivering online courses including the faculty that develop and teach, the support staff that coordinate registration and student issues, and the administrators who provide and support training. The bottom line is that the institution must believe in online learning in order for everyone to contribute (Palloff & Pratt, 2001). In fact, it has been suggested that in order for web-based education to succeed there must

be a high-level individual in the organization to realign the administrative structure to support the web programs and enhance their visibility (Aggarwal & Bento, 2002).

The institution must provide support for several areas. The first area is training. An instructor needs training in the technical aspects of courseware, but also more importantly they need training in the pedagogy of online teaching (Schweizer, 1999). This is made clear by implications of the Phipps & Merisotis (1999) research study, which indicated that institutions must look past technology to build collaborative learning communities. Faculty should be retrained from just being a content expert to becoming more of a learning process expert and facilitator. Faculty must also become effective motivators and mentors to guide students. The bottom line is that technology can be used as another useful learning tool, but it cannot replace human interaction without some quality loss. The study also tries to determine how technology affects student learning and satisfaction. The discovery is that technology is not as important as “learning tasks, learner characteristics, student motivation and the instructor” (Phipps & Merisotis, 1999, p. 31). Essentially, the research ends up addressing the art of teaching itself.

Another reoccurring theme in research that demands institutional support is the amount of time it takes to develop and instruct an online course. One instructor who has been working with online courses for years states that time is needed for the development of online courses with the vast majority of that time being up front. For example, this individual estimated that it takes 40% longer the first time a course is developed and 20% thereafter (Schweizer, 1999). Again, this is because considerable attention must be paid to clearly outlining course expectations; detailing course activities, discussions and assignments; creating assignments and rubrics; and making the course easy to navigate. This information is also supported in a study by the National Education Association (2000) where over half of distance learning faculty stated that they spend more hours

per week preparing and delivering their online course than they would in a traditional setting. In spite of that fact, “84% get no course reduction and 63% get compensated like they do for normal course loads” (National Education Association, 2000, p. 7). It seems natural to suggest that if the institution is going to support online education and the faculty is going to embrace it, then this issue needs to be addressed.

So if instructors aren't being compensated for the extra time to develop or teach online courses, why teach an online course? One unnamed study reviewed by Palloff and Pratt (2001) may help answer this question. The primary incentives for some instructors to teach at a distance were personal or intrinsic rewards. Some faculty appreciates the opportunity to provide innovative instruction, use new teaching techniques and receive recognition. However, the previously mentioned obstacles still remained including the need for more time, training and support.

Institutions can respond to the obstacles of online education by providing incentives (Palloff & Pratt, 2001). One way to do this is to allocate money for online course development. Another way is to offer the proper course development and training activities. The institution can also offer a reduced course load to faculty teaching online to give the opportunity to provide a quality learning environment. Finally, an institution should provide a support system to help new online faculty gain some comfort in this new experience.

Other things administrators can do to encourage and promote online learning is to reassure faculty who may have a fear of learning new technology, respect faculty content expertise and find creative ways to reward faculty, such as monetary benefit or recognition for online accomplishments (Olson, 2002).

Another issue that must be dealt with at a higher administrative level is to consider the training needs of students (Palloff & Pratt, 2001). While it may be convenient to believe that most students are technologically skilled today, this is not always the case. Students may want help learning to use the courseware software, and more importantly they also need to understand what is expected of them online. It is wise for the institution to consider providing an orientation course to all first time online learners. Furthermore, instructors should be trained to provide further orientation within the specific courses.

Finally, it is suggested that administrators, politicians and anyone who is involved in the decision making of online programs need training (Palloff & Pratt, 2001). This is mainly because technology and online learning does not solve budgetary problems and it should not be used for such purposes. Decision makers must be aware of the realities of online teaching and learning.

Characteristics of Online Learners

In order to promote effective online learning, faculty and students must be aware of how the learning process differs from the traditional classroom (Palloff & Pratt, 2001). Online education with technology does have a significant impact on the learning process. The dynamics change from teacher-centered approaches to learner-centered approaches of learning. Students need to take a more active role in the process and are challenged to use course materials or interact with others to construct knowledge.

The instructor's challenge is to act as a facilitator and encourage a collaborative community of learning (Kumar, Kumar & Basu, 2002). This may be a significant challenge for students who are used to being given the material and letting the instructor do all the work. Now students may be asked to solve problems, experiment, discover, and work on hands-on projects. They may do independent projects or work in groups with peers. They may post thoughts on a

discussion board and comment on other students' thoughts. Students must be prepared for this new way of learning.

An online learner must be independent and self-directed (Smith, Ferguson & Caris, 2001). When the task of online learning is taken seriously and confidently, learning can extend far beyond the traditional learner in a classroom. One way to extend learning is through participation in a threaded discussion board where there is a greater emphasis on the written word. The learner also has time to reflect on a discussion before he or she reacts. This will allow the student to think about the material at a deeper level. "The learning appears more profound as the discussions often become broader and deeper. The students are more willing to engage students and peers more actively" (Smith et al. 2001, p. 5). Also, since there is now a feeling of anonymity, students are more willing to contribute more information. In fact, in one study the "highest performing students reported the most peer interaction" (Phipps & Merisotis, 1999, p. 20).

Who are the online learners? By taking more than a brief look at research, one may conclude that the distance learner population is too heterogeneous to describe a typical distance learner and therefore this profile is too dynamic to be relied upon. Rather, there is now an increasing emphasis on meeting the individual needs of learners (Thompson, 1998). Nonetheless, there are characteristics of distance learners worth mentioning. Students who are attracted to online education are voluntarily seeking further education, are highly motivated, have higher expectations, and are more self disciplined (Palloff & Pratt, 1999). They also tend to be older than the average student and possess a more serious attitude toward their courses. The students most likely to succeed are independent active learners (Brown, 2002). They are able to structure and manage their time well. They are also risk takers and good problem solvers.

In addition to knowing who the online learner is, faculty should also think about what those students want. The aim should be to empower the students to learn as effectively as possible while enjoying a rewarding experience. So what do online learners want? Moore (1999) suggests content they feel is relevant; clear directions of what to do throughout the course; control over the pace of learning; a way to address individual concerns; a way to determine progress and receive feedback; and useful, active, and interesting materials.

Beyond just having the right personal characteristics to succeed in an online course, the learner also must be computer literate. In a 1998 study, 81% of students thought there should be a computer training and orientation course before the start of classes. This included the need for the students to be “Internet-literate” (Nasseh, as cited in Aggarwal & Bento, 2002). Some institutions now require students to take an online orientation course before enrolling in online courses to ensure that technology does not interfere with learning (Palloff & Pratt, 2001). At a minimum, each course should provide some orientation material to let the student know how online learning differs from traditional learning, including time management issues, how assessment occurs, how one receives feedback, what is appropriate communication, and so forth.

Dr. William Glaser, a psychiatrist, educator and philosopher who has been researching “learning” for over 40 years also indicates that students have basic psychological needs which ideally should be addressed when developing coursework (Schweizer, 1999). His points include the following:

1. Students need to feel they belong. An instructor can do this by trying to include face to face meetings where possible. Also the instructor should include a self-introduction with some informal personal information, try to personalize the online learning environment,

promote cooperative learning, and stay in close contact with students by being an active participant.

2. Students need freedom. This is more of a natural component in an online environment but it can also be promoted by creating additional ways for students to prove their understanding of competencies.
3. Students need power. Self directed learning is the nature of online learning and is powerful for individual learners. Some students will immediately thrive in this environment. However, the instructor must create interactive learning experiences for student to share information to construct knowledge.
4. Students want to have fun. This can be done by providing extra opportunities for learning, second chances and adequate time to learn the material.

Finally one study concludes that “current Web-based online college courses are not an alienating, mass-produced product. They are a labor-intensive, highly text-based, intellectually challenging forum, which elicits deeper thinking and provides more equality between instructor and student” (Smith et al., 2001, p. 6). This needs to happen to engage the learner at all levels.

Characteristics of Effective Online Instructors

A good starting point for a new online instructor is to understand the differences between online versus face to face courses so they can adapt appropriately. In a study of instructors in the State Universities of New York (SUNY) Learning Network the following instructors’ impressions of these differences were noted (Smith et al., 2001):

- Some instructors feel as if a lifetime of teaching skills is lost. They feel they can no longer use presence and classroom skill to get a point across so they must find new

methods. This also limits their ability to improvise and deal with behavior problems or on the spot educational opportunities.

- It is also noted that the course must be laid out in great detail to avoid misunderstandings. This means course preparation is very time consuming. However, this provides the instructor an opportunity to look at and present material in new ways.
- Instructors indicated that it takes many hours to create an “online presence” so students feel there is someone responding to their needs. They noted that when students do not perceive this presence, they are more likely to drop the course.
- Instructors also noted that students usually develop an online identity which helps reassure them regarding academic integrity of the teaching environment.

As the above points illustrate, all instructors are not necessarily suited for teaching online. Experience has shown that successful online instructors typically are willing to give up some control of the teaching and learning process and focus on empowering learners (Palloff & Pratt, 2002). They use collaborative, active learning techniques and ideas; use real-life examples; and build reflection into the teaching and learning process. An effective instructor may also respect and use the work and experience of various students in a collaborative relationship and must be able to manage real events and real problems of the students (Stevens-Long & Crowell, 2002). Finally, effective online instructors tend to be serious lifelong learners (Brown, 2002). They favor experimental and collaborative styles and are good group facilitators. They set clear expectations and provide frequent feedback.

Research and practice repeatedly indicate that one critical component for an online instructor is upfront preparation of course materials and then continued online interaction with students. An instructor must be dedicated to the cause and prepared for a major time commitment

to online education. Phipps & Merisotis (1999) remind us that technology can effectively utilize instructor time, but it cannot replace instructor and student interaction without significant quality losses.

An instructor must consider many tasks during course preparation. For example, an effective course should be planned out in detail. The instructor should provide information about participation, deadlines, assignments and other course expectations. This helps ensure a higher level of work and let students know that there is structure and a place waiting for their involvement (Stevens-Long & Crowell, 2002). The instructor should also be prepared to provide immediate and/or regular feedback and clear rules of participation.

It is also clear that online course development should follow the good practices of any course development. One way to ensure this is to use performance based curriculum with clearly defined skills that the learner will obtain from the program, course and unit levels (Schweizer, 1999). William Spady, an educator and researcher who devoted his career to the development of curriculum states that one should “start at the end point-with your intended outcomes-and define, derive, develop, and organize all your curriculum designing and instructional planning, teaching and assessment on those designed demonstrations” (Schweizer, 1999, p. 17).

Program outcomes should be clearly written and easily accessible (Schweizer, 1999). This should be included in a syllabus or as a link to a program webpage. It is also a good idea to provide the student with a printed copy. The outcomes should be based on what the student will demonstrate with clearly defined expectations. The idea is to organize this around the learner. The verbs one chooses also sets the stage for the level of difficulty and thinking expected. Creating outcomes that have a real life application expands opportunities for real learning.

It is also helpful for an instructor to utilize the abundance of research now available about how people learn. This research can assist faculty in finding more effective and creative ways to teach online. The more of these concepts that are integrated into an online course, the better. In some ways, an online environment allows more obvious possibilities of addressing multiple learning styles and needs. For example, brain based research indicates that “learning is maximized in rich and complex learning environments which offer multiple opportunities for hands-on learning, dialogue with others, making connections across disciplines and various forms of expression” (Schweizer, 1999, p. 28). Some of the key points of this research for instructors to utilize as presented by Schweizer (1999) include:

- Learners need a complex, activity-rich learning environment to arouse interest and curiosity, which offers multiple ways to learn.
- Learning should be connected to what the learner already knows.
- Learning is a social activity so teachers need to provide opportunities to apply concepts to real life situations and test understandings with peers.
- Performance based assessment is best.
- Assessment should be ongoing using a variety of assessment tools.
- Assessments should tap into multiple intelligences.
- Students should have access to models of good performance.

In an online environment where cheating may be a concern to some instructors, it should be realized that any online tests are open book tests (Schweizer, 1999). However, quality assessment tools today are no longer primarily of the multiple choice or true/false nature. With that in mind, online tests can be used as learning tools or practice tests for students to review material. Perhaps the best way to actively learn and test on the material is to use performance-

based assessment. This can be done using a clearly defined rubric to assess the students' abilities to apply the knowledge and skills. Rubrics can be given to students before they start the coursework so they will know what is expected and can use it as a tool to monitor progress and make corrections before an assessment. Actual assessments may include a variety of tools: writing assignments, portfolios, simulations, contests/games, or presentations.

There are also other items an instructor can include to increase the effectiveness of an online course. This includes teaching students to navigate the course, providing a welcome letter, utilizing group work, incorporating scenarios and case projects, setting clear timelines, setting expectations early, providing support information up front and using course evaluations to improve courses (Schweizer, 1999).

The tone of the course is also important. A study at the University of British Columbia evaluated 127 online courses for tone, content and teaching process and concluded that the appearance of a course can also impact the success of a course (Boshier, Mohapi, & Moulton, as cited in Schweizer, 1999). In other words, the instructor should spend time making the course format exciting rather than just using simple text based information. Some tips on how to improve tone include using white space, keeping a site simple, integrating the entire site, making it visually welcoming, providing information about the instructor, including a fun splash page, and allowing for easy exit.

Finally, an effective online instructor must also understand the learning environment. For example, there are now many different types of interaction available. In an effective learning community, the learner will interact directly with the content, the instructor and peers. This will promote an environment where the learner becomes actively involved. The course design should

promote varied opportunities for this to happen using different formats to draw on the strengths and abilities of different types of learners.

Summary

The literature review reveals not only the importance of institutional support to online education but also highlights the need for learners and instructors to understand the online learning environment. The technology used in the online learning environment may not be as important as “learning tasks, learner characteristics, student motivation and the instructor” (Phipps & Merisotis, 1999, p 31). Most importantly, an instructor will need to understand online learners and find ways to integrate best known teaching practices into online education.

Chapter Three - Methodology

Introduction

This research was conducted to learn from the experience of instructors to determine methods to improve online education at WITC. The following sections outline how this research was conducted including selection of subjects, instrumentation, data collection, data analysis, and limitations to the selected methodology followed by a brief summary.

Selection of Subjects

The participants in this study were full-time WITC instructors who were willing to participate and have taught online education courses for WITC for at least two years or have taught a minimum of four online courses. The total population that met the criteria consisted of 18 instructors. The population was identified to the researcher through information provided by the WITC Administrative office in Shell Lake.

Instrumentation

This study was conducted using a series of open-ended interview questions developed by the researcher. The survey instrument is included in Appendix B.

Data Collection

The data was collected by tape recorded telephone interviews. The telephone interviews were limited to a maximum of one hour. An email was sent to the population identified by WITC prior to the study to inform them of the impending survey. The email highlighted the reasons for the research and how participation will benefit WITC. The email also requested a response regarding the willingness to participate. It was made clear that participation was strictly voluntary and every effort would be made to keep instructor identity confidential.

A follow-up email was sent to the willing subjects. This email included a copy of the consent form and a copy of the interview questions for the instructor to review. The consent form stated by completing the interview the instructor was providing informed consent and that they have the right to withdraw from participation in the study at any time.

Data Analysis

The researcher reviewed the tape recorded interviews several times to identify major themes. Information was then categorized using the identified themes. The results of the interviews are documented in Chapter Four and Chapter Five and also provide additional summary information of WITC instructors' impressions and ways to improve online education at WITC.

Limitations

The researcher acknowledges that limitations existed with the selected methodology. These limitations are that only a small population of instructors met the pre-determined criteria, instructors were asked to participate in the summer which is a particularly difficult time to contact them, and the survey was developed by the researcher so there are no validity or reliability measures established for the instrument.

Chapter Four - Results

Introduction

This chapter reviews the results of telephone interviews. Originally, an email was sent to 18 instructors inviting them to participate in the study. Five instructors responded which represented a 28% response rate. These responses have been used to meet the objectives of this study.

Research Objectives

This study addressed the following objectives:

1. Clarify the role and support of WITC to online education.
2. Determine what training and course orientation information is available to online education students at WITC and how it can be improved.
3. Identify what training is available for online education faculty at WITC and how it can be improved for course development and delivery.
4. Understand what teaching strategies and techniques have been successful in online education at WITC.

1. How long have you been teaching online courses?

Three of the five instructors have been teaching online education at WITC for three years. The remaining two instructors have been teaching it for two years. Four of the five instructors are teaching web-enhanced courses and one has been teaching strictly online courses. These instructors met the criteria of online education at WITC as defined by Blackboard, Inc: “an approach to teaching and learning that utilizes Internet technologies to communicate and collaborate in an educational context. This includes technology that supplements traditional classroom training with web-based components and learning environments where the educational

process is experienced online” (Blackboard, Inc, 2000, p. 1). All instructors have used Blackboard in the majority of their courses including their traditional face to face courses.

2. What has been your experience teaching online?

Two instructors immediately indicated that they liked it. All instructors indicated in some form that they agreed that this medium is a good supplement to their courses. Two instructors discussed the challenges of online education, including the struggle to find ways to integrate critical thinking into discussions and simply getting a good discussion started. Finally, one instructor focused on the weaknesses of Blackboard as a problem with online education at WITC, including the lack of a sufficient grade book and a lack of an effective communication system through email.

3. What has been your role as an online instructor? How is it the same and how does it differ from your face to face courses?

Two instructors put main emphasis on the one to one communication with students that this medium provides. This means the instructor must explain things more clearly in writing, be careful about how things are explained and provide examples. This also creates more work for the instructor because the communication takes more time. The advantage is students can choose a method of communication that works best for them. Two other instructors focused on the learner and assisting them with how to learn to think and speak on their own. The final instructor indicated personal commitment to students becoming comfortable working with this medium so as to have the ability to stay current in their profession.

4. What have you found to be the advantages of online teaching? How about the disadvantages?

Three instructors talked about the depth of discussion possible when students do think critically. One instructor indicated, “An advantage that surprised me was the information that came out in discussion was much more in depth that it made me stretch my brain.” Another said this depth of discussion happens because the “student reads, researches, thinks about, reviews other replies, revises and eventually posts.” Other advantages mentioned were accessibility, one on one interaction, flexibility, student access to resources and the information posted is readily available.

Two instructors indicated that a disadvantage is some instructor and student discomfort with technology, with one suggesting that the students need help desk availability on campus. Other disadvantages mentioned included slowness of grading, slowness of a discussion and the work to be too time consuming.

5. Do you feel you receive adequate time or compensation to teach your online courses? Why or why not?

The instructors all indicated that they spend more time to teach online education courses. Four out of the five instructors indicated they did not receive adequate compensation. In the case of at least two instructors, efforts were made to alleviate the workload. In the first case the solution did not work and the second case only covered a period of one semester where the workload was reduced to accommodate a double class size. This instructor said, “That helped a whole lot but the next year I didn’t have that day off so I ended up having to let the course go because I couldn’t keep up. I know my students would have participated more if I could have kept up.”

The following instructor quotes also indicate how the instructors feel about the time and compensation issue:

- It took so much time that “it got to the point that I was making shortcuts in grading just to keep my sanity and not spend ten hours a day on the computer. If teachers are going to teach their best they need time to do it.”
- “Personally I invest a lot of extra time but feel I will likely gain in the long run. I invest the time because this is the future, I want to get experienced quickly and I believe this is a very valuable tool which adds to the skills of students and instructor.”
- “Our curriculum is already so busy. In our contract we are paid 35 hours a week. Any instructor will tell you that is a joke. The amount of time you put in preparing for class, grading papers, in working with students is well above that amount of time. This was just added on top of that.”
- “It takes a shocking amount of time is what I find out. I always think this is just a learning curve and that it will get better but I do not think it will.”

6. How does your course development for online courses differ from your face to face courses?

Three instructors talked about the amount of instructor thinking, writing and posting of items an online course takes with all course materials being prepared upfront. Two instructors indicated the need to integrate critical thinking projects and case studies. Finally, one instructor discussed that a lot of time is saved at the copy machine and the responsibility for information and documents is now put on the students.

7. If you were going to develop and teach an online course again, what would you do differently? What would you do the same?

Two instructors indicated that they will continue to use quizzes as practice tests. The other item noted was to continue to use case studies to integrate critical thinking. Things instructors would do differently included less planning of assignments ahead of time as the classes sometimes develop a different direction, find ways to ask better questions to encourage a deeper level of thinking, and find different ways to do group projects because they are difficult to collaborate online.

8. How do you keep your students actively involved?

Two instructors indicated the discussion board is important to student involvement and how the wording of discussion board questions is important. One comment was “the discussion board really makes the class feel like a class because you really get to know each other through those postings.” If this instructor does not feel students are responding sufficiently, more questions are asked to draw them out. Eventually they start to share. This instructor indicated it usually takes about two weeks to really get the discussion going. Two other instructors discussed regular instructor feedback as another useful tool. Finally, one instructor talked about getting students to understand that utilizing technology is the future and they will need to be fluent in doing things online. This instructor uses online handouts and requires that the student retrieve them to develop the ability to find resources online.

9. How much emphasis do you put on the look and feel of your course? Do you think this adds value to the course?

Four of the five instructors indicated that they have done very little to change their course from the default settings. The reasons given for not making changes included, “I do mainly what

I need to because of time” and “I believe it makes absolutely no difference, the less gaudy the better” and “it would be great to have the technological competence and time to do this.”

The final instructor made changes prior to teaching the first online course and now uses that initial template in all courses.

10. What kind of training did you receive prior to teaching your first online course? Do you feel this training was adequate? Why or why not?

All instructors participated in at least one day of Blackboard training provided by WITC. Three of these instructors indicated this training was adequate because one is a point and click type person, another was self motivated just to do it and the third didn't feel that more classroom time would have been effective. The fourth instructor indicated that this course was enough to get started. Finally, the fifth instructor said it was a fine introduction to Blackboard but is not adequate preparation to teach online. This instructor believes there should be a more formal program for instructors that will train them from start to finish. In this course the instructor should be an online student and would have to work through the various features of Blackboard throughout a whole semester.

11. Have you had any additional training since teaching your first online course?

All instructors have participated in additional training since taking their first Blackboard course. At least three instructors have participated in the Critical Thinking Conference at Facilitating the Future. Another participated in more Blackboard training and the final participant went through training with Flash. This particular instructor indicated that the flash training was an eye opener because it highlighted what is possible online, but the challenge is an instructor cannot be an instructional designer, graphic designer and IT professional in one to create an online learning environment.

12. What, if any additional training, do you believe would be helpful?

These responses varied but two instructors indicated a need for collaboration. The first said it would be helpful to share critical thinking tools among instructors and the second indicated it would just be helpful to talk to other instructors for more ideas. The third instructor indicated that html training would be beneficial. The fourth instructor indicated that a workshop where an instructor could work on courses while having a tutor available would be helpful. This instructor made it clear in several answers that having someone available to help in person is much more beneficial than having help by telephone. The final instructor believes there should be training on the differences between face to face and online education. This individual indicated that “as WITC moves toward becoming a total blended institution, they should not have instructors working in a hit and miss learning fashion as they are now. There are already known best practices that exist that instructors should know about. We should not just put information out there. This would be more helpful than just showing us the features of Blackboard.”

13. Did you need support to teach online? If yes, what support did you need? Do you feel there is an adequate support system available to online instructors?

One instructor indicated that he or she has used the campus Blackboard facilitator and program support person. Another indicated “it is difficult to ask the campus Blackboard facilitator questions because that person is often also busy with their own job that I hesitate to ask even one thing.” One instructor does occasionally use the 1-800 Blackboard support. Another suggested that the biggest issue with support is really with the students needing to know how to use the software. Finally, one instructor suggested that a more formal mentoring program

for online learning would be appropriate because the 1-800 does not meet the needs of many people.

14. To what extent do you collaborate with other instructors regarding your online courses.

Has this or do you believe this would improve your courses?

Three instructors indicated that their program is very structured and there is quite a bit of collaboration on both content and structure of courses in Blackboard. Another instructor collaborates with peers regarding content and the final instructor collaborates regarding Blackboard and ways to improve delivery of a course.

15. What do you (and WITC) do to continually assess and improve your online courses?

Three instructors indicated that they only receive informal feedback from the students as a means to improve their courses. Another indicated using a course feedback form and using information on how students do on quizzes and assignments. The remaining instructor said nothing is done. Not one instructor mentioned what they believe WITC does.

16. Do you and/or WITC provide a course orientation for students?

Three instructors indicated that they cover at least very basic Blackboard fundamentals with students. A couple of instructors indicated that WITC provides online orientation information. One instructor indicated that he or she used to offer a Blackboard orientation to students during activity hour but was told to stop because WITC is paying the 1-800 number to support the students. This instructor indicated that while not many students attended this training, those who did found it very beneficial. This instructor also indicated a willingness to re-establish this practice because it was very useful to students.

17. What if any training and support is made available to your students?

All instructors were aware of the 1-800 number support line that is available to students. Another stated that students come in already trained because they have taken other courses or they look to the instructor for support. Finally, one instructor said, “that’s the trouble-not enough” training is provided to students.

18. Do you do any pre-testing to determine differing knowledge level of students?

Two instructors indicated doing some form of questioning or pre-testing to determine student knowledge level of working with the technology. A third instructor does more pre-testing in regards to course content. The final two instructors said they do no pre-testing with one indicating that the program designates that the students come in computer literate.

19. How do you assess student work? How does this differ from techniques you use in your face to face courses?

All instructors provided unique answers to this question. Instructor one stated that it is more structured online. Students are required to use proper grammar and spelling. Online quizzes are also provided so students can see how they are doing. Instructor two uses the track changes feature of Word to grade papers and the discussion board to assess student understanding. Instructor three uses the threaded discussion board and the digital drop box. The digital date and time stamp provide accountability for turning assignments in on time. Instructor four uses a critical thinking checklist to do an evaluation of responses and keep track of which students do what is asked of them. Finally, instructor five treats the environment as mostly pass or fail.

20. What techniques do you use to promote a collaborative learning community?

Two instructors indicated that they make it clear to students that we want to hear from them online. As one stated, “this is your conversation so do not expect me to provide the

answers.” A third instructor discussed this point further by defining collaborative versus cooperative learning for the students. The students are told that “collaborative means we are all here to learn, all your ideas are valid, we have not had the experiences you have had and that experience counts, we want to hear from everyone and this is a safe, open and honest environment. Cooperative means we will model good work habits and work professionally as a team.” The other two instructors discussed using groups as a method to provide collaborative learning amongst students.

21. What if any additional tools do you provide to your students?

Instructor answers included posting as much information as possible, providing links, and mailing hard copy packets to students in a totally online course. Another instructor mentioned a group project that worked excellent as a learning tool. Finally, one instructor indicated frustration of the inability to update the college web page from home, so this individual feels it is necessary to run a personal web server to be able to provide additional information and tools to students.

22. Is there anything additional you would like to add?

The following responses illustrate the variety of general comments that instructors wanted to add:

- The digital drop box was not really covered in training.
- Online instructors need more time to provide a quality course. A general recommendation is that there should be an additional office hour for every three credit course an instructor teaches so the additional workload can be managed.
- The college needs to embrace online technology because as we are moving to an Internet knowledge community and workplace and we are lagging behind for a variety of reasons

including outdated equipment and lack the skills. We are doing a below average job of providing Internet resources.

- This is a great alternate learning tool and necessary skill for professionals to learn accessing materials and networking with peers. It is just unfortunate we do not have the time to do it.
- It takes a self starting student to be able to use and learn from this. It augments better than it teaches.

Chapter Five - Summary, Conclusions and Recommendations

Introduction

No research has been conducted to determine methods to develop and improve online education at WITC. Therefore the goal of this paper was to identify opportunities for improvement of online education at WITC, particularly at a time when the college is implementing the SOAR initiative. This will impact the entire institution as all courses will be web-enhanced by the fall of 2006.

To accomplish this, WITC identified a list of eighteen online education instructors who have been teaching online for at least two years or taught a minimum of four courses online. In July of 2004, the researcher sent an email to those instructors inviting them to participate in the study. Five instructors responded and completed tape recorded telephone interviews. The tapes were then reviewed to clarify data collected to be reported in this study.

Summary

The major themes identified included instructor belief in the concept of online education, the needs and concerns of training for instructors and students, the time an instructor needs to integrate quality into online education courses and methods and teaching strategies instructors currently use that work.

All instructors indicated in some form that using Blackboard to deliver courses online is a great additional resource for students. The responses to support this included: "it is a necessary skill for professionals to learn accessing materials and networking with peers" and "students need to become comfortable working with this medium to stay current in their profession" and "this is a very valuable tool that adds to the skills of both students and instructor."

All instructors indicated that they have at a minimum participated in the Blackboard training provided by WITC. In some cases the instructor felt this was adequate, but in other cases the instructors indicated that more could be done to educate and support instructors teaching online. Most also indicated that more should be done to provide orientation and support to students.

A difficult but common theme in online education that was clearly understood by WITC instructors is the time issue. All instructors indicated that they must put in extra time if they want to do a quality job integrating technology into their courses. All instructors indicate a strong commitment to online education and want to do the best possible job teaching online or web-enhanced courses, but most also indicated that the reality is there are times when it is simply impossible to keep up so they occasionally have to let some things go.

Finally, instructors had the opportunity to provide techniques that have worked well in their online classes. Every instructor indicated the discussion board is one of the most effective methods of teaching and learning online. Most instructors also indicated that they work hard to integrate critical thinking into the discussions and continuously strive to improve methods to get full student participation. Other common methods used to develop critical thinking were case studies and group projects. Other items mentioned included the digital drop box with digital time and date stamp, using quizzes as practice tests, and providing as much information for students as possible.

Conclusions

The conclusions drawn from this study seek to respond to the following research objectives:

1. Clarify the role and support of WITC to online education.

2. Determine what training and course orientation information is available to online education students at WITC and how it can be improved.
3. Identify what training is available for online education faculty at WITC and how it can be improved for course development and delivery.
4. Understand what teaching strategies and techniques have been successful in online education at WITC.

1. Clarify the role and support of WITC to online education.

While it is clear that WITC has identified student, faculty and staff use and access of technology and online education as a priority through the implementation of a college technology plan and the SOAR initiative, like any institution it should be recognized that there is room for improvement. The perception of one instructor surveyed was “the college needs to embrace online technology. We are supposed to be moving to an Internet knowledge community and workplace and we are lagging behind because we lack the skills, our equipment is not up to date, etc. We are doing a below average job of providing Internet resources.” This individual was able to provide some concrete examples of why he or she holds this belief including frustration because of lack of access to the college website from home.

As far as online education is concerned, WITC has done a nice job identifying required features and services of the SOAR initiative (Appendix A). Three of the main themes identified in this research are listed in these features and services including professional development as a high priority, curriculum development time allocation to faculty, and orientation training for students. Some of these items may alleviate some concerns, while at the same time each item may need a much more detailed implementation plan and revision as WITC continues to learn more.

WITC is also working with faculty to alleviate some of the time issues. It is extremely helpful that the SOAR initiative is providing some upfront professional development and curriculum development time to assist instructors in getting started. However, this does not address the main concerns of the ongoing time restraints online education presents. For example, the one on one communication online takes more time, it takes time to post and keep online resources updated, and so on. One instructor said it well with the statement that “if teachers are going to teach their best they need time to do it.”

2. Determine what training and course orientation information is available to online education students at WITC and how it can be improved.

This was clearly identified as an area for improvement. Most instructors indicated that the students mainly receive an online orientation to complete independently and a 1-800 number to call for help. Many instructors also chose to provide a brief introduction to Blackboard in the classroom. This can work well when teaching a web-enhanced class but is difficult if it is a completely online course. One instructor did provide a classroom orientation course to students in the past but was told not to because WITC is paying for the 1-800 support. This individual felt strongly enough about the alternate method of learning Blackboard that he or she indicated a willingness to re-establish this practice with WITC approval. Finally, some students struggle with basic technology skills, which the 1-800 does not assist with and therefore a local help desk number would also be helpful.

3. Identify what training is available for online education faculty at WITC and how it can be improved for course development and delivery.

This is an area that WITC is doing a good job with but also has room for considerable improvement. It is reassuring to know that all instructors are provided with and take advantage of

the opportunity to learn the fundamentals of Blackboard before creating their first online course. It is also very encouraging that WITC recognizes the importance of integrating critical thinking into online discussions, because all instructors surveyed clearly understood it to be one of the best methods to strengthen online discussions. Most of these instructors clearly benefited from participation in the annual Critical Thinking Conference at Facilitating the Future. Because these instructors learned this outside of Blackboard training, new instructors need to understand that in order to find techniques to improve online education an instructor needs more than just Blackboard training.

Instructors also suggested areas for improvement with training which included more local campus support through a one on one mentoring program, more training to understand how online versus face to face courses differ and how to adapt to these changes, providing a semester long online course to train the instructor as a student from start to finish through a course, in person Blackboard course development workshops (similar to the current workshops WITC provides for web page updates) and more technology training such as html and other areas to increase instructor comfort with technology.

4. Understand what teaching strategies and techniques have been successful in online education at WITC.

As noted earlier, every instructor indicated that the discussion board, case studies and group projects are the most effective methods of teaching and learning online if critical thinking is integrated. Most instructors discussed how challenging it is to integrate critical thinking into discussions and even getting good discussions started. It is apparent that experience is significant because these instructors have learned how to continually improve courses. Two instructors have also developed critical thinking checklists to assist students with these skills and use as an

assessment tool. Some instructors also discussed that it is very important to provide regular and consistent feedback to students.

Other items mentioned as useful tools included using the digital drop box with digital time and date stamp to provide accountability for assignment due dates, using quizzes as practice tests so students can gauge what they have learned and providing as many resources to students as possible.

Recommendations Related to this Study

While WITC is already doing an adequate job of training instructors, it would be helpful to expand opportunities for learning by reviewing the resources of other institutions in successful online or faculty development programs. There are many resources available today to use as guides as WITC looks to improve online education. While these resources and recommendations are aimed at improving instructor knowledge and training, they complement institutional support and methods to address and meet the needs of learners more effectively.

The first example relates to an instructor recommendation in this study, which is to provide an online course for new instructors that will teach more than just how to use Blackboard. The Penn State World Campus Faculty Development Plan provides an online course an instructor can use to learn how to develop or instruct online courses. While this course is primarily designed for Penn State faculty, they do invite other distance educators to use it because the course is constructed around competencies relevant to all distance educators. This course can be found at: <http://www.worldcampus.psu.edu/facdev101/>.

Grant MacEwan College of Edmonton, Canada, did an extensive study on web-based course delivery in which it surveyed both instructors and students. They developed a comprehensive faculty handbook from this study which is intended to provide an introduction to

online course development and delivery practices and to serve as an instructor guide and reference tool. The Grant MacEwan website also provides a very well thought out professional development model and excellent resources for instructors. It would be helpful for WITC to provide a similar page where sites with best practices and instructional strategies are modeled. Grant MacEwan's Learn Online site can be found at: <http://learn.gmcc.ab.ca/lol/staff/teach.cfm>.

Finally, Carol Twigg (2001) presents a host of case study examples to learn from in *Innovations in Online Learning, Moving Beyond No Significant difference* found at <http://www.center.rpi.edu/PewSym/Mono4.html>. Carol Scarfiotti, of Rio Salado College presents an excellent example of how a college can work together to provide and support an online program. She states that Rio Salado uses a cross-college group to make decisions regarding format, delivery, and emerging technologies. The department links a content expert with a team of specialists to develop an online course. This helps ensure that courses align with the "Rio brand" of distance learning. This example mirrors the comments of one instructor in this study who believes that to achieve an even higher level of excellence in online courses, there may need to be more than just instructors developing the online courses because the potential is enormous.

Recommendations for Further Study

As WITC continues to learn more about online education there is always opportunity for improvement. One area WITC has yet to research is the opinions of students in both completely online and web-enhanced courses. This research will increase in value as all WITC students begin to participate in web-enhanced courses. This will also complement this study which focused much attention on instructional needs to optimize courses.

WITC could also benefit from a qualitative study that focuses on known best instructional practices or analyzes case studies of successful online education programs. This information could then be used to improve instructor training and resources at the college.

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Appendix A

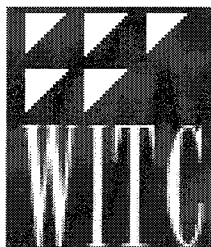
Wisconsin Indianhead Technical

College

Phase 3 - 24/7 Learning Access
DRAFT

Initiative Implementation Report -

1. 24/7 Learning Access



Initiative

Since the development of its first Technology Plan in 1996, WITC has asserted that “technology is not an option” for its students, faculty, or staff. With the implementation of 24/7 Learning Access, WITC asserts that its graduates must be “computer savvy” in order to best succeed in today’s workforce.

Prior to the development of a college wide 24/7 Learning Access plan, two WITC programs implemented concepts of 24/7 learning access.

In 2001 WITC’s Technology Plan and WITC’s administration recommended the development of a “universal access” task force. The focused, systematic work of the Universal Access Task Force provided data, definition, and a general plan for implementation of 24/7 learning access in all WITC programs.

In 2003, WITC contracted the services of Elert and Associates (Stillwater, MN) to provide a more in-depth analysis of the infrastructure, instructional, and organizational needs required to implement 24/7 collegewide. Elert & Associates developed the Phase 1 and Phase 2 24/7 Learning Access Recommendation Reports during spring semester 2003.

This report details what has taken place since April 21, 2003 and identifies implementation steps envisioned to make 24/7 Learning Access a reality in all technical diploma and associate degree programs at WITC by fall semester 2006.

2. Audience

The primary audience for this initiative is students and prospective students of WITC. They are the key reason for the college to pursue the 24/7 Learning Access Initiative. Faculty, staff, WITC’s college image, and the workforce will also benefit.

3. Definition

Learning Access means student access to selected WITC learning resources 24/7 from remote sites.

4. Vision

All students enrolled in WITC's technical diploma and associate degree programs will have 24/7 access to selected learning resources from remote sites.

5. Goals

These 24/7 Learning Access goals may also be thought of as Success Indicators. In other words, if these requirements are fulfilled, the project will be considered successful. The following goal statements were formulated during Phase 1.

- a. Student learning and achievement will be enhanced.
- b. This initiative will level the playing field between students with respect to technology.
- c. Students will gain useful skills that can be used in many facets of their lives.
- d. Students will have access to web-based and web-enhanced (blended) courses at any time, and from wherever able to connect to the Internet.
- e. There will be one central location to find all online and blended course information.
- f. This initiative will reduce or remove barriers between students and the institution.
- g. Access will be made available via a variety of standards-based devices, and a variety of network connectivity methods.
- h. Ease of use and convenience will be considered in all infrastructure planning and design.
- i. Faculty members will be supplied with needed professional development and tools so they are ready and able to participate.
- j. Timing and phasing will be arranged to accommodate program and individual needs.
- k. This initiative will provide students experience with the current technologies they will encounter in the working world.
- l. This initiative will make it easier for students to complete their program on a schedule convenient or them – especially those already in the workforce.
- m. Frequent communication and discussion are essential to the implementation of WITC's 24/7 learning access initiative.
- n. This initiative will ultimately result in a decrease in the number of WITC purchased computers.

6. Required Features and Services

Based upon work begun in the 13 programs identified to implement 24/7 Learning in 2004, the phase 1 and 2 24/7 Learning Access Initiative Recommendations Reports, and the college technology plan, the following "required features and services" have been identified.

- a. A web-based portal will be implemented to provide an easy-to-use, single point of access to online resources.
- b. Wireless local area networks (WLANs) will be installed at all campuses to help fulfill the goal of access from anywhere.

- c. The technology infrastructure will be highly reliable. Downtime will be minimized so that student access can be maximized. In a 24/7 environment, required maintenance will be scheduled so as to create the least possible disruption.
- d. Systems and networks will be secure to protect the privacy of information.
- e. Plans to address shared access to files and drop box needs will be developed and implemented at each WITC campus.
- f. Students will be expected to lease or purchase computers, laptops, etc. with specifications identified specifically for their program from vendors other than WITC. It will be expected that the vendor from which students' purchase/lease their personal computer/laptop will be the best source of help when problems arise with their computer.
- g. Since WITC will be providing a wireless environment in general education classrooms, classrooms of programs where laptops are required, commons areas, and faculty office areas, WITC will be the provider of the wireless help-desk services.
- h. Dot.Edu of UW Milwaukee will continue to provide 24/7 Blackboard help-desk services to WITC students and staff.
- i. WITC will purchase a number of laptops to meet temporary, emergency computer checkout needs of faculty and students.
- j. Collegewide program consistency in hardware and software expectations, public electronic curriculum documentation, and minimum program/general education outcome commitments is being established on a program-by-program basis. Faculty developed program fact sheets will document decisions and be shared with stakeholders. Consistencies will be assessed and updated annually.
- k. Curriculum standards will be consistent with, though not identical to, those expected with eTech College and WITC online courses.
- l. Blackboard will be the software platform in which curricular information is housed for all program courses.
- m. Student printing services and related use policies will be studied, developed, and implemented.
- n. Professional development will be a high priority for faculty as they prepare to implement 24/7 in their respective instructional areas.
- o. Curriculum development time will be allocated to full-time/part-time faculty members teaching in 24/7 Learning Access programs and related general education.
- p. Orientation training will be offered to students.
- q. WITC will negotiate with software (required in program) providers, as deemed appropriate, to secure the most affordable purchases available for students.

Appendix B

Interview Questions

Study: Strategies for the Development and Improvement of Online Education at Wisconsin Indianhead Technical College

Researcher: Gina Hosch

Introductory Comments: Thank you for taking the time to participate in my research study. As you may already know, I am planning to use this research to identify best practices of online instructors and identify areas to improve online education at WITC. By now you should have read the consent form and realize that by completing this survey you are giving consent for me to use the data in my final research report. I will make every effort to keep individual responses confidential.

Let's get started....

1. How long have you been teaching online courses?
2. What has been your experience teaching online?
3. What has been your role as an online instructor? How is it the same and how does it differ from your face to face courses?
4. What have you found to be the advantages of online teaching? How about the disadvantages?
5. Do you feel you receive adequate time or compensation to teach you online courses? Why or why not?
6. How does your course development for online courses differ from your face to face courses?
7. If you were going to develop and teach an online course again, what would you do differently? What would you do the same?
8. How do you keep you students actively involved?
9. How much emphasis do you put on the look and feel of your course? Do you think this adds value to the course?
10. What kind of training did you receive prior to teaching your first online course? Do you feel this training was adequate? Why or why not.
11. Have you had any additional training since teaching your first online course?

12. What, if any additional training, do you believe would be helpful?
13. Did you need support to teach online? If yes, what support did you need? Do you feel there is an adequate support system available to online instructors?
14. To what extent do you collaborate with other instructors regarding your online courses? Has this or do you believe this would improve your course(s)?
15. What do you (and WITC) do to continually assess and improve your online courses?
16. Do you and/or WITC provide a course orientation for students?
17. What, if any, training and support is made available to your students?
18. Do you do any pre-testing to determine differing knowledge levels of students?
19. How do you assess student work? How does this differ from techniques you use in your face to face courses?
20. What techniques do you use to promote a collaborative learning community?
21. What if any additional tools do you provide to students?
22. Is there anything additional you would like to add?