SUCCESSFUL INTERNET BASED ONLINE INSTRUCTION

By

L. CHALLOO* J. SALDANA** R. DAVIS*** L. KUPCZYNSKI****

* Texas A&M University, Kingsville.

ABSTRACT

This study identifies factors in distance learning that affect the educational excellence of institutions of higher learning. The main elements of this study are: the examination of benefits and disadvantages of implementing online instruction in institutions of higher learning; investigating the factors that contribute to successful web-based instructional programs in institutions of higher learning. Additionally, the goal of this study is to identify factors that offer advantages to on-line instruction, perhaps this might serve as an incentive to motivate instructors to implement on-line instruction on a regular basis. The data was gathered by implementing a Likert scale online survey. The survey was sent to educators from higher learning institutions, which included Professors, Associate Professors, Assistant Professors, Instructors, Lecturers, and Adjunct Professors.

Keywords: Web-based Distance Education, Perceptions of Internet Based Online Learning Environments, Online Learning Environments.

INTRODUCTION

The impact of new innovations in technology has transformed the mode of instruction in higher education. As a result, the World Wide Web (WWW) contributes to computer networking and aids in distance education. Additionally, research shows more traditional institutions in different geographical regions are now providing online educational courses (Chang & Smith, 2008). According to Norton and Hathaway (2008), more than half of graduate programs in the United States offer web-based courses for their students. As a result, Norton and Hathaway (2008) suggest that educators will soon face the decision in offering online options for their students.

Gibson, Harris, and Colaric (2008) mention that online education enrollment has increased and now serves more students in universities and colleges who want to pursue their education. Internet accessibility has been increasingly established in many locations throughout the world. Students are not limited to their local area but have a choice of where they would like to receive their online instruction (Li & Irby, 2008). As a result, web-based courses can now be accessible to a broader range of learners. Chang and Smith, (2008) state that students who work, have families, or live in remote areas are now given an option to pursue their education.

To have a successful internet based online instructor, the higher education faculty need professional development training to become comfortable and competent in distance learning. Instructors can implement online instruction as a feasible teaching tool. Gibson et al., (2008) state that faculty members hesitate in regards to online education courses because of the technological issues that occur during the delivery mode of instruction. Distress felt by instructors leads students also to become frustrated because of technical issues or concerns (Gibson et al., 2008). According to Chang and Smith (2008), the quality of education is negatively affected by the lack of online instructors who use technology but do not utilize that much personal interaction with their students. Another concern for instructors is changing traditional courses into web-based courses. Additionally, instructors spend extra time revising their web-based courses in comparison to traditional face-to-face courses (Li & Irby, 2008).

Statement of the Problem

Studies have shown that more institutions of higher learning are adopting online courses. Distance education presents challenges for designers and instructors who are in the beginning stages of the online learning environment. Research has shown that in online teaching, the lack of interaction among students and also, instructors facing

technical problems could be a concern. Secondly, instructors also run into technological problems. For example, instructors use certain types of multimedia for instruction but not all students will be able to view and hear certain items such as video clips or audio clips due to missing components. An additional problem is that few instructors recognize the advantages of using on-line teaching as a means to deliver instruction. Instructors often are unfamiliar with setting-up on-line sites and therefore tend to shy away from utilizing technology. Few institutions of higher learning offer up-to-date training sessions to keep their instructors abreast of the latest technological innovations that can implement to facilitate on-line learning.

Purpose of the Study

The purpose of this study was to identify factors in distance learning that affect the educational excellence of institutions of higher learning. The study explores the advantages and disadvantages of using web-based instruction in institutions of higher learning. The study examines the factors that contribute to a successful web-based instructional program in institutions of higher learning. The main elements of this study are the examination of benefits and disadvantages of implementing online instruction in institutions of higher learning; investigating the factors that contribute to successful web-based instructional programs in institutions of higher learning.

Review of Literature

The rapid increase of technology has transformed the delivery of instruction in the higher education setting. In addition, faster internet speeds have enabled institutions of higher learning to send and receive information in a timely manner. Additionally, research shows more traditional institutions across the country are now offering distance education courses (Chang & Smith, 2008). The growth of Content Management Systems (CMS) are now making it feasible for instructors to post information that could be either supplemental or actual content to be taught through the use of multimedia software. According to Norton and Hathaway (2008), there is an increase in graduate online programs in the United States. Therefore, Norton and Hathaway (2008) suggest that educators will soon face the decision in offering online options and join the 2.3 million online students that are enrolled in online courses.

Advantages of Distance Education as Viewed by Students

The incorporation of the Internet in schools contributed to likes and dislikes among professors and students. Researchers report that students have benefited in taking online courses. The first advantage of online courses is the convenience to take the course from anywhere with Internet accessibility. Students' participation in web based courses allows the students to have flexibility to take courses without the need of being present in the classroom (Akdemir, 2008). Course time offering and availability makes face-to-face classes difficult for students that manage family, and work.

Coombs-Richardson (2007), mentions that students with family and work obligations are gearing towards web-based learning. In addition, classes that are taken online give students the opportunity to complete assignments at their convenience. Moreover, students taking online course can access their assignments or projects with a computer from any location that has broadband connectivity. Additionally, this is great for those who travel or have a busy work schedule. One way students communicate with their professor is through electronic mail (e-mail). Secondly, students can also contact their instructor through the telephone for questions or concerns they may have. In online classes, students can view their upcoming assignments and can view their grades from online exams or quizzes sometimes immediately after taking them. Unlike face-to-face classes, students wait to receive grades or assignments when they next convene to class.

According to Akdemir (2008) students prefer taking courses due to accessibility and cost. The institutions are now offering varieties of classes online. Additionally, courses offer a one time face to face orientation session to offer ease with the online course. Furthermore, local tutoring is available to students within the local area of the institution (Akdemir, 2008).

Web based instruction has few differences in quality of learning compared to traditional instruction. Many schools adopt course management systems (CMS) for their

delivery of instruction for distance education (Singh & Stoloff, 2007). There are many types of e-learning software that many schools are implementing in their courses. Necat (2007) mentions that there needs to be several phases of evaluation in addition to increase the effectiveness of distributed learning materials. The instructional designer and interface designers are the evaluation specialists who can help the instructor revise or redesign the course materials.

Appana (2008) states that there are two types of online learning. The first type of online learners are students who do not have access to a local university or college. These students also do not have the funds to commute to a campus. The second type of online learning, are students who take courses that offer both online and on campus teaching. Distance education courses must pose interactive qualities to ensure success for the students. For instance, the course management system that is used should have some multimedia features so that it addresses multiple learning styles. Furthermore, this can improve student performance, grades, and course approval.

Yousuf (2007) mentions that there are four technological options distance educators can utilize for student learning. One technological option is the use of audio devices such as, the telephone, audio conferencing, and short-wave radio. The second option is instructional video tools which can be slides, film, videotape, and web casts which combines both moving images and audio. The next option, is the data tools which include computers that can deliver and accept information via the internet. The last option, is the print materials which include textbooks, study guides, and course syllabi.

Appana (2008) states that distance education courses can implement authoring software for their online delivery. This type of software includes a synchronous live, web environment in which instructors can present content and create classroom meetings with their students. Providing a variety of media to the student can make the course a bit more interesting and also offer different learning styles for students. There are two distinct features which question the credibility of distance education. The first feature concerns the quality of the learning materials. The instructor must select the proper materials in order to have a successful class. The second feature is how quickly the instructor can provide feedback to the students when they have a concern over learning or study problems (Gujjar & Malik, 2007). With an immense amount of online resources available, online students are provided with superior resources for distance learning. Coombs-Richardson (2007) states that for students to succeed in an online program they must have the following criteria. Students must first be capable of working independently and also be self motivated. Secondly, students must be aware of timelines when work should be submitted. Students must demonstrate good reading and writing skills to be successful in distance education courses. Students who take online courses must take assessments in a different manner than students who take courses at the campus. Students usually have quizzes, tests, discussion boards, and projects that they must turn in for a grade.

Disadvantages of Distance Education as Viewed by Students

Students learning experience can be altered when taking an online course. Older students are not as familiar with online programs. Milligan and Buckenmeyer (2008) states that students need motivation, one-on-one interaction to be successful in online courses. Students need to have characteristics such as being independent, and have a positive attitude toward technology. Students who are not positive toward learning online will ultimately fail their online course work. Many students prefer taking face-to-face courses because of the social interact with others. Some universities do not offer a pre-assessment to register for online courses. If a pre-assessment is in place, online instructors can then determine which students will not be ready to take online courses.

Content Management Systems

Colleges, universities, and distance learning organizations are adopting content management systems (CMS). According to Falvo and Johnson (2007), many schools indicate on their institutional websites their online course offerings and how courses are delivered. CMSs include a series of web-based tools which are utilized for delivering content to students. The materials that instructors offer

through CMSs are assignments, syllabus, items to be read, and announcements. Other tools that are interactive that a CMS can have are quizzes, tests, discussion boards, and chat rooms. According to Malikowski, Thompson, and Theis (2007), the number and variety of CMS features have led to their use in distance learning courses. Consequently, the CMSs are being implemented more and more for resident courses. Falvo and Johnson (2007) researched one hundred schools and found that the top two content management systems that are being used in higher institutions are Blackboard and WebCT. There are several free open source content management systems such as Sakia and Moodle which have grown in popularity by universities and colleges. According to Young (2008), free open-source content Management Systems can become as costly as non open source CMSs. The cost arise from buying hardware from the hiring of support staff to main the CMSs (Young 2008).

The Challenges of Online Education as Viewed by Instructors

Researchers agree that time is a critical issue when it comes to establishing online courses. Akdemir (2008) suggests that professors feel a deep burden due to extensive time needed to design, develop, and evaluate online courses. In addition, professors need more time to prepare for online courses than professors who teach face-to- face classes. Universities overlook hours spent on course related materials by the instructors. Li and Irby (2008) mention that instructors need to be well organized in preparing their online course. Moreover, professors who are conducting their own research are not as dedicated as professors that are interested in using online resources for instructional purposes (Akdemir, 2008).

Although age plays no factor in conducting online courses, interest in technology does. Younger professors tend to be more knowledgeable in technology resources. Interest in technology gives some professors the upper hand in developing an online course to provide a different mode of instruction that can help students' ability to get educated. Professors who are not technologically savvy or do not agree with the combination of technology in the development of web-based classes are less likely to conduct online courses. Workshops and training are what professors look for when deciding to teach online courses. Akdemir (2008) mentions professors who teach online have to rely on tutorials and trial and error in conjunction with workshops.

Universities are including new online courses but have yet to set standards to help professors to develop, plan, and teach online courses. In addition, Akdemir (2008) states that there is a concern being encountered by professors in which higher standards are the tendency of online courses. Therefore instructors should hold the online course to the same standards as face-to-face courses.

Design of an online course

Instructors must have support by their institution before designing an online course. The course is made up of different components which call for extra support in order to develop a successful online course. Fein and Logan (2003) mention that some instructors fear change or the lack of knowledge to make the transition to online instruction. Research suggests that many face-to-face instructors do not want to teach online courses.

The instructor must first find out if the course is to be newly designed or if a previously course designed by another instructor may be used. During the design process, many hours are spent up-front prior to the set up of the course. Barker (2003), states that designing an online course is similar to designing a traditional course. The course description, course competencies, and course content are some of the beginning stages in developing the course for web-based instruction. The following step that the instructor needs to do is to meet with an online coordinator. In addition, instructors have to convert exams and tests into online format, and decide how the data will be submitted. Also, instructors must know that technical problems can occur when using technology. The instructors themselves must seek support from university Information Technology technicians. Instructors should become familiar with the various technologies in order to teach an online class. However, some instructors who are technologically savvy are over designing their online courses. Fein and Logan (2003) state that online courses that are simple, transparent, and reliable are preferred more by students. In

addition to content management systems, software authoring tools are being adopted by universities which can either be uploaded to the Internet or to a compact disc for another delivery method of instruction.

Creating Social Presence in an Online Environment

The online environment is much different than the face to face environment when it comes to socializing with others and with the instructor. According to Aragon (2003), instructors provide several strategies in order to create a social setting for the students. In the design aspect, instructors can place a welcome page that could include a short video of the instructor saying a few comments about himself or herself and an overview of the course (Aragon, 2003). In addition, the use of student profiles in the course design for social presence is very helpful. The profiles can include the student's name, image, short bio, and interests about the course. The students have a choice whether or not they want to post their picture to the CMS. Additionally, adding the audio component to the course can be used for social interaction. The audio can either be broadcasted by the instructor to the students or there can by a two way communication where the instructor and the students communicate. Moreover, classes with fewer students become more feasible for social presence to occur. The instructors can also create collaborative groups which can increase collaboration within the students themselves (Aragon, 2003). Furthermore, instructors play a vital part when creating discussion boards. Instructors can contribute information as well as the students when discussion board questions are posted. The purpose is not to reply to all the students' questions but to show the students that the answers are being read. In addition, instructors create social presence when responding quickly to students emails. Just as in a face-to-face class students can ask a question that can be answered almost immediately. The instructor can also use humor and emotions to invite students to reduce the social distance among the students. Also, by addressing the students by their first name can also create an inviting social online environment (Aragon, 2003). The students in the class should also become contributors to the online course by participating in the discussion boards. The input from the discussion boards can create interactions with other students in the class as well as for the instructor. Moreover, students should reply to emails from instructors in a prompt manner. According to Aragon (2003), students can use humor, emoticons, and addressing the instructor with their appropriate title can increase the social presence in the online environment.

Authoring Systems for Web Conferencing

With course management systems in place in higher education institutions the implementation of authoring systems is another delivery mode for instruction. According to Cogburn and Kurup (2006), there are numerous amount of authoring systems available to incorporate to a higher education course. For instance, Cogburn and Kurup (2006) mention several authoring systems such as, Cotelco, Adobe Systems, Elluminate, Genesys Conferencing, Marratech, Microsoft, Pixion, Raindance Communications, and Saba Software. These types of software allow instructors and students to collaborate synchronously through the web. Research states that most of all the authoring systems are hosted by the client server and is connected through the Internet. The majority of software authoring tools include components such as, text chatting, session content, participant information, participant interaction and video. The setup of the meeting includes the invitation of the participants who will be attending the meeting online. The invitation is sent through an email and the user has a link where he or she is able to log in. According to Cogburn and Kurup (2006), in order to have a successful online collaboration the software should have the following, "Web conferencing: VoIP; video; participant roles; interactive capabilities for participants; diverse session content options; live application sharing; recording and archiving capabilities; break-out rooms; bandwidth management; accessibility, including Americans with Disabilities Act compliance; security; integration; session management; customization and support; and cross-platform functionality."

Blogs and Wikis

The implementation of blogs has become a popular tool for online and traditional classrooms. This unique tool can provide information about a specific topic and other users

can post comments to it. According to Ferriter (2009), there are several free sites to create a blog, such as, blogger, typepad, and edublogs. In addition, blogs can also be a source of professional development for educators. One way to view blogs is through an account that accepts a Really Simple Syndication (RSS) feed. The RSS feed works by sending the user an email whenever there has been an update to a website they have signed up for. Moreover, wikis are designed for online collaboration among users. A wiki can be modified or updated by another user who has the account name and password. There are several wikis available such as, PB Wiki, Wikispaces, and Wet Paint which some also include an RSS feed.

Methodology

The research methodology utilized in this paper was quantitative in nature and explored perceptions of online teaching and learning in higher education institutions. A pilot study was conducted to check for reliability of the instrument. The questionnaire provided the same results after it was used repeatedly with the same pilot group. Convenience sampling was used to select participants. The questionnaire was then sent to 164 participants, which included professors, associate professors, assistant professors, instructors, lecturers, and adjunct professors. The design utilized descriptive analysis. The descriptive data collected from the survey questions are presented in the following tables.

Analysis of Data and Results

The purpose of this study was to identify factors in distance education that affect the educational excellence of institutions of higher learning. The study explored the advantages and disadvantages of using web-based instruction, as well as the factors that contribute to a successful web-based instructional program in institutions of higher learning.

There were a total of 63 participants but only 56 completed the entire survey (Table 1). The majority of the participants were assistant professors.

The participants' years of teaching online in a higher education setting were: six (11%) in the year range of 0-1; eighteen (32%) in the year range of 2-4; nine (16%) in the year range of 5-7; twelve (21%) in the year range of 8-10; eleven (20%) in the year range of 11 or more. The number of male participants was fifteen (27%) and forty-one (73%) were female participants. The majority of the participants were female assistant professors with 2-4 years of teaching online courses (Table 2).

Respondent	Adjunct	Lecturers	Instructors	Assistant Professors	Professors
Number	2	1	5	40	8
Percent	4%	2%	9%	71%	14%

Table 1 . Job Title (n=56)

The participants' field of instruction ranged from 2% in Agriculture; 27% in Arts & Sciences; 18% in Business; 16% in Education; 38% in another departments not listed on the survey.

When asked if Web based instruction was in demand and advantageous for students who want to continue their education but have a busy schedule, (Table 3) thirty-seven (66%) strongly agreed; fourteen (25%) agreed; four (7%) were neutral; one (2%) disagreed; zero (0%) strongly disagreed. It is evident that the majority of the responses strongly agreed that offering online courses are in demand and offer many benefits for the students.

The participants were asked if a prerequisite or training course would be beneficial for the students' transition to web based instruction (Table 3) nine (16%) strongly agreed; eighteen (32%) agreed; twenty-three (41%) were neutral; six (11%) disagreed; zero (0%) disagreed. The results

Respondent	Year 0-1	Years 2-4	Years 5-7	Years 8-10	Years 11+
Number	6	18	9	12	11
Percent	11%	32%	16%	21%	20%

Table 2 . Years teaching online courses (n=56)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I find that Web based instruction to be advantageous for students who want to continue their education but have a busy schedule	37	14	4	1	0
I find that a prerequisite course to be beneficial for the students' transition to web based instruction.	9	18	23	6	0
The students tend to have better results when taking a web based course.	0	9	34	12	1

Table 3 . Web based instruction to be advantageous (n=56)

indicate that majority of the responses expressed neutrality in having a prerequisite or training course prior to taking a full online course. According to Akdemir (2008), instead of a perquisite course a one time face to face orientation could be offered before taking a web-based course.

When asked if students tend to have better results when taking a web based course, as shown in Table 3: zero (0%) strongly agreed; nine (16%) agreed, thirty-four (61%) were neutral; twelve (21%) disagreed; one (2%) strongly disagreed. Again, majority of the responses expressed neutrality.

The participants were then asked if they usually respond to a student's email within the day, (Table 4) twenty-two (39%) strongly agreed; thirty (54%) agreed; one (2%) responded neutral; three (5%) disagreed; zero (0%) strongly disagreed.

The next question was: do more students contact the instructor using email? As shown in Table 4 twenty-four (43%) strongly agreed; twenty-six (46%) agreed; five (9%) were neutral; one (2%) disagreed; zero (0%) strongly disagreed.

When asked if more time is spent responding to students through email than in developing content for teaching, the responses are in Table 4. Three (5%) strongly agreed; twelve (21%) agreed; nineteen (34%) were neutral; twenty-two (39%) disagreed; zero (0%) strongly disagreed.

The participants were posed with the question: if the institution provided training in the use of technology for all faculty members, as in Table 5 nineteen (34%) strongly agreed, twenty-eight (50%) agreed, two (4%) were neutral; six (11%) disagreed; one (2%) strongly disagreed. According to Akdemir (2008), workshops and training are two attributes that attract professors who may decide to teach online courses.

When asked if content management system training is given before teaching an online course, as shown in Table 5: nine (16%) strongly agreed; twenty-four (43%) agreed; two (4%) neutral; sixteen (29%) disagreed; five (9%) strongly disagreed.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I usually respond to a student's email within the day.	22	30	1	3	0
I find that more students contact me using email.	24	26	5	1	0
I feel that I spend more time responding to students through email than developing content for teaching	3	12	19	22	0

Table 4. Response to student's email (n=56)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The institution provides training in the the use of technology for all faculty members	19	28	2	6	1
The instructors are given content management system training before teaching an online course	9	24	2	16	5
The content management system is easy to use	4	31	15	4	2

Table 5. The institution provides training in the use of technology (n=56)

The participants were asked if the content management system was easy to use, as in Table 5 four (7%) strongly agreed; thirty-one (55%) agreed; fifteen (27%) neutral; four (7%) disagreed; two (4%) strongly disagreed. This indicates that the interface of the CMSs and its functions are user-friendly and can be efficient for students taking web based courses.

When asked if the institution offers numerous professional development in the use of web-based instruction, as in Table 6 nine (16%) strongly agreed; thirty-two (57%) agreed; six (11%) neutral; five (9%) disagreed; four (7%) strongly disagreed. The majority of the responses confirmed that there is professional development for the professors to keep up with the changing technology that is used for teaching.

The participants were asked if the department they work for gets support and teamwork from other areas within the college, as in Table 6 seven (13%) strongly agreed; twenty-eight (50%) agreed; twelve (21%) neutral; six (11%)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The institution offers numerous professional development in the use of web-based instruction	9	32	6	5	4
The department gets support and teamwork from other areas within the college	7	28	12	6	3

Table 6. The institution offers numerous professional development (n=56)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagre
The Informational Technology technicians respond quickly when problems occur with technology	20	23	12	1	0
Technology director in the Technology director in the department for assistance with technology and instructional problems	10	16	6	14	10

Table 7. The Informational Technology technicians respond quickly when problems occur with technology (n=56)

disagree; three (5%) strongly disagree. More than half of the responses agreed that the instructors receive some aide from other areas within the college.

The participants were asked if the Informational Technology technicians respond quickly when problems occur with technology, as in Table 7 twenty (36%) strongly agreed; twenty-three (41%) agreed; twelve (21%) neutral; one (2%) disagreed; zero (0%) strongly disagreed. The responses indicate that customer service is done quickly when problems arise with technology used as instruction. The next question asked was: if they have access to an Instructional Technology director in their department for assistance with technology and instructional problems, as shown in Table 7: ten (18%) strongly agreed; sixteen (29%) agreed; six (11%) neutral; fourteen (25%) disagree; ten (18%) strongly disagree. The majority agreed that their institution does have someone who can guide them with instruction pertaining with the use of technology.

Conclusion

The purpose of this study was to examine alternative instructional delivery modes implemented by institutions of higher learning. To verify the affects of distance learning in higher education; the advantages and disadvantages of using web-based instruction; and the factors that contribute to successful web-based instructional programs as reported by instructors. The information obtained from our study indicated instructors spend more time providing immediate feedback to students through the use of email than developing content for online instruction. The study indicated that the majority of instructors responded that web based instruction is in demand and advantageous for students who want to continue their education but have a busy schedule. Our study also revealed that the majority of instructors receive training in the use of technology and it showed that majority of instructors are given content management system training before teaching an online course. The content management system was easy to use according to participants in this study. In Course Management Systems, the course designer's role can be complicated. However, there are numerous training and support tools for additional help in the program. In addition, the study indicated majority of the instructors responded that the Information Technology department acts quickly when problems with technology occur. Moreover, the study also revealed that the instructors have access to an Instructional Technology director in their department for assistance with technology used for instruction. The coordinator helps the instructor with designing and implementing the course for online delivery.

In summary, the progression of delivering distance learning is targeting more participants than before. The availability of online courses is becoming more common now in the higher education setting. Online courses from the students' perspective are in demand which allow students with family and job obligations to continue their education. Courses that are taught via the web should have some type of multimedia and interaction for the users to take full advantage of the available technology. Most distance education courses use Course Management Systems to distribute information and content for their students. Several tools are added to online courses such as authoring systems which allow the user and instructor to interact with one another. Other tools such as wikis, blogs, and RSS feeds are also a great addition to supplement instruction online.

References

[1]. **Akdemir, O. (2008).** *Teaching in Online Courses: Experiences of Instructional Technology Faculty Members.* Online Submission, (ERIC Document Reproduction Service No. ED501108) Retrieved October 16, 2008, from ERIC database.

[2]. **Appana, S. (2008).** A review of benefits and limitations of online learning in the context of the student, the instructor, and the tenured faculty. *International Journal on E-Learning,* 7(1), 5. (ERIC Document Reproduction Service

No. EJ780471) Retrieved March 10, 2008, from ERIC database.

[3]. Aragon, S. (2003). *Creating Social Presence in Online Environments. New Directions for Adult and Continuing Education,* (ERIC Document Reproduction Service No. EJ772943) Retrieved May 14, 2009, from ERIC database

[4]. Barker, A. (2003) Faculty development for teaching online: Educational and technological issues. *Journal of Continuing Education in Nursing.* 273. eLibrary. Proquest CSA. TEXAS A & M UNIVERSITY - KINGSVILLE. 15 May 2009. http://elibrary.bigchalk.com/curriculum.

[5]. Chang, S. & Smith, R. (2008). Effectiveness of Personal Interaction in a Learner-Centered Paradigm Distance Education Class Based on Student Satisfaction. *Journal of Research on Technology in Education*, 40(4), 407-426. Retrieved September 7, 2008, from MasterFILE Premier database.

[6]. Cogburn, D.L. & Kurup, D. (2006) "The world Is our campus - synchronous collaboration software lets universities unite colleagues, students and researchers from all over the globe. Here we evaluate nine products." Network Computing. eLibrary. Proquest CSA. TEXAS A & M UNIVERSITY - KINGSVILLE. 15 May 2009. http://elibrary.bigchalk.com/curriculum.

[7]. Coombs-Richardson, R. (2007). Personalizing distance learning. *Kappa Delta Pi Record,* 43(2), 71. (ERIC Document Reproduction Service No. EJ754515) Retrieved March 10, 2008, from ERIC database.

[8]. Fein, A. & Logan, M. (2003). *Preparing instructors for online instruction. New Directions for Adult & Continuing Education*, Retrieved October 9, 2008, from Academic Search Complete database.

[9]. Falvo, D. & Johnson, B. (2007). The Use of Learning Management Systems in the United States. *TechTrends: Linking Research and Practice to Improve Learning,* 51(2), 40-45. (ERIC Document Reproduction Service No. EJ774630) Retrieved October 14, 2008, from ERIC database.

[10]. Ferriter, B. (2009, February 1). Learning with Blogs and Wikis. *Educational Leadership,* 66(5), 34-38. (ERIC Document Reproduction Service No. EJ828742) Retrieved May 14, 2009, from ERIC database.

[11]. Gibson, S., Harris, M. & Colaric, S. (2008). Technology acceptance in an academic context: faculty acceptance of online education. *Journal of Education for Business*, 83(6), 355-359.

[12]. Gujjar, A. & Malik, M. (2007). *Preparation of instructional material for distance teacher education.* Online Submission, (ERIC Document Reproduction Service No. ED494809) Retrieved March 13, 2008, from ERIC database.

[13]. Li, C. & Irby, B. (2008). An Overview of Online Education: Attractiveness, Benefits, Challenges, Concerns, and Recommendations. *College Student Journal*, *42*(2), 449-458. Retrieved September 17, 2008, from MasterFILE Premier database.

[14]. Malikowski, S., Thompson, M., & Theis, J. (2007). A Model for Research into Course Management Systems: Bridging Technology and Learning Theory. *Journal of Educational Computing Research, 36*(2), 149-173. (ERIC Document Reproduction Service No. EJ760626) Retrieved April 8, 2009, from ERIC database

[15]. Milligan, A. & Buckenmeyer, J. (2008). Assessing Students for Online Learning. *International Journal on E-Learning, 7*(3), 449-461. Retrieved October 2, 2008, from Education Research Complete database.

[16]. Necat, B. (2007). *Distance learning for mobile internet users.* Online Submission, (ERIC Document Reproduction Service No. ED496536) Retrieved March 27, 2008, from ERIC database.

[17]. Norton, P. & Hathaway, D. (2008). Exploring Two Teacher Education Online Learning Designs: A Classroom of One or Many? *Journal of Research on Technology in Education, 40*(4), 475-495. Retrieved September 17, 2008, from MasterFILE Premier database. http://elibrary.bigchalk.com/curriculum .

[18]. Singh, D. & Stoloff, D. (2007). *Effectiveness of online instruction: Perceptions of Pre-service teachers.* Online Submission, (ERIC Document Reproduction Service No. ED500084) Retrieved March 12, 2008, from ERIC database.

[19]. Yousuf, M. (2007). *Effectiveness of Mobile Learning in*

Distance Education. Online Submission, (ERIC Document Reproduction Service No. ED499346) Retrieved October 16, 2008, from ERIC database.

[20]. Young, J.R. (2008). Blackboard customers consider alternatives. *Chronicle of Higher Education, 55*(3), A1.