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Technology Supported Education :
Virtual WSU Business Administration Pilot Program

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Abstract

This paper discusses a new initiative at Washington State University that will provide the opportunity for place-bound students across the state to earn a Bachelor of Arts in Business Administration. This degree will be fully AACSB accredited. The program under way at WSU will differ from traditional distance learning methods in that it will provide both live interaction between instructor and student via two-way audio/video connections as well as self-study course materials. Students will enter the Virtual Business Degree program after completing an AA degree at a local community college and will be able to complete their BA in two years. Electronic technology such as WWW, email, online audio and video lectures, chat rooms, and EMAIL will be the primary mechanisms used to deliver course materials and administer assignments and exams. Starting in January of 1998, courses will be delivered to students at four learning centers in remote areas of the state. The success of the program will be assessed on a course by course basis and as a whole. Multivariate statistical analysis will be used to measure the differences in student achievement and satisfaction as compared to students in the traditional classroom environment. From this we hope to measure not only the viability of the program but the relative success of distance learning techniques employed in the various courses.
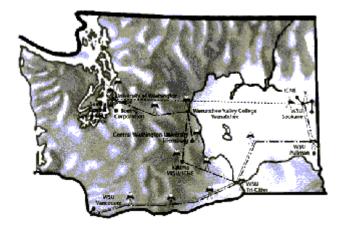
Introduction

Traditionally, distance education has meant correspondence courses consisting of text books, video tapes, study materials, and written exams administered via the US Postal Service. More recently, cable television brought the Mind Extension University into homes. The use of one way audio and video improved the presentation of course material, but interaction between students and between professor and students was limited at best. Universities across the country are expanding their programs to include distance learning and thereby provide opportunities to students who would be unable or unwilling to leave their homes and jobs to attend classes full time. Some Universities such as the University of Michigan [7] and University of North Carolina [8] have created partnerships with corporations to bring classes directly to the company sites. Others such as Duke University [9] have combined asynchronous correspondence learning with short, intensive on site course delivery. These programs have been oriented to providing graduate level degree programs to employees of major corporations that have the financial resources to participate. Washington State University has initiated a project which will provide state wide access to degree programs to the population as a whole.

Washington State University has history of delivering distance education via two mechanisms, correspondence style courses under the WSU Extended Degree Program[2], and interactive television provided by the Washington Higher Education Telecommunications System. These programs have been an effective means to deliver a limited set of course materials and degrees to students across the state. However, the correspondence classes lack the interaction provided in a traditional classroom setting and the WHETS system is tied to the limited number of sites it can serve. The Virtual WSU Project [10] was initiated in 1995 to better serve the educational needs of all the residents of the state of Washington by taking advantage of recent developments in computer networking and interactive video teleconferencing. This paper describes WSU College of Business's initiative within Virtual WSU, namely the Virtual College of Business and Economics Undergraduate Degree Program (VCBE). The next two sections provide some background concerning past use of interactive TV at WSU and the motivation behind the VCBE. This is followed by CBE curriculum and course design. The paper concludes with some thoughts about what to expect in the future.

Experience with Virtual and Distance Learning

In the early 1980's the Washington Higher Education Telecommunication System (WHETS)[3] was developed as a delivery system for distance learning, designed to provide greater access to higher education in the state of Washington. University classrooms are linked electronically across the state by providing two-way video and audio interaction. In addition to delivering academic courses, the system is used for video conferencing among sites. Faculty and administrative meetings, student advising conferences, and staff development programs are other examples of how people use the system when they work or study at different locations. The system currently links ten cities and fourteen institutions to the educational network. This system has proven successful in delivering course between these sites, but is costly to operate and does not reach all the students WSU is responsible for serving. The College of Business and Economics uses the WHETS system to share upper division undergraduate and MBA level courses between the branch campuses at Tri-Cities and Vancouver. Due to the limited bandwidth, cost structure of the system, and student schedules, the College of Business has typically shared only two classes per term (each way) between the branch campuses, and none between the main campus in Pullman and either branch campus. In general, business faculty have found that students receiving the courses at the remote site do as well as students at the local site, but are far less satisfied with the process. This may be due to a feeling of isolation, lack of interaction with other students and faculty outside of class, and the a feeling of being treated in a "second class" fashion. Students at the branch campuses take a mix of traditional and WHETS courses. Thus their expectation level is different than those taking purely distance learning classes. We hope to prove this through the assessment of the proposed VCBE Degree Program.

Motivation for Virtual Business Degree Program

The Virtual Business Degree Program came about for several reasons. First, as a land grant institution WSU is obligated to serve the needs of the people of the state of Washington. The Smith-Lever Act of 1914 gave each land-grant university a mandate to extend results of research and scientific expertise to the people of the state in order to improve the quality of their lives and enterprises. Traditionally this meant providing undergraduate and graduate degree programs on its main campus in Pullman and agricultural advice at its many cooperative extension offices. In 1992 this mission was expanded to encompass the following activities [1]:

- Help people develop leadership skills and use research-based knowledge to improve their economic status and quality of life.
- Adapt to changing socioeconomic conditions and population needs for educational programs.
- Establish a network of functional relationships with government, industry, community organizations, and other institutions of higher education.
- Provide system of delivery that provides distance learning opportunities for every citizen of the state.

Recently it came to the attention of WSU leaders that participants in WSU Extension Office programs required courses and knowledge which could only be acquired through the College of Business. Additionally, the leaders and citizens of the Colville and Chehalis Tribes requested that a Bachelor of Arts in Business Administration be created to serve their educational and occupational needs. The initial plan for implementing the program consisted of creating a BA in Business Administration through the WSU Extended Degree Program. The courses would be implemented in a self-taught correspondence style as are other classes within the Extended Degree Program[2]. This plan raised questions in the WSU School of Business and Economics (CBE) concerning curriculum control, quality, and AACSB accreditation (of both the traditional and extended degree programs). A task force from the College of Business was created in order to address these questions and concerns. This task force is headed by the Associate Dean of the CBE and consists of a representative from each department. The task force has been given the overall responsibility for the design, development, implementation, and assessment of a Virtual Business Degree program which could be implemented state wide and meet AACSB accreditation standards.

VBE Curriculum and Students

The Virtual CBE Degree Program (VCBE) is being designed such that a student can earn a BA degree in as little as two years after completing their AA degree. However, the virtual nature of CBE course delivery and the scheduling of classes will allow students to complete the degree at their own pace. Unlike Extended Degree Program course, VCBE courses will start on a semester cycle and have a predefined completion date. A total of 12 CBE upper division courses will be offered on a virtual basis, 6 core classes, and 6 electives. Students will take advantage of the WSU Extended Degree Program offerings to complete the balance of their upper division electives. Courses will be designed during the summer of 1997, class materials and technology will be pilot tested during the fall semester of 1997. The first three classes will be offered in spring 1998. The first four WSU learning centers to host the program will be: the Colville Indian Reservation at Nespelem; the Colville Learning Center at Colville; the Port Hadock Learning Center at Port Townsend; and the Chehalis Reservation Learning Center at Chehalis.

Students entering the VCBE Program are required to have the same qualifications as those of transfer students who attend WSU seeking a business degree. Students will have an Associate of Arts degree or its equivalent from a Washington community college or similar institution and have taken all the freshman and sophomore CBE core requirements (mathematics, economics, accounting, and communications). These lower division core classes can be taken at a local community college or through the WSU Extended Degree Program. It is expected that the student population enrolling the VCBE Program will tend to be older and contain a larger percentage of women, work full-time or part-time, and have significant family responsibilities. Therefore, these students will likely average two classes a semester and require four academic years to finish the upper division course work. Some students may have been out of school for some time. Thus, their training in such areas as computer software and mathematics may be relatively obsolete. This will require the creation of a one week tutorial provided at each learning center to assure that every student has a common set of business software skills by which to work within the virtual course structure.

Course Design and Delivery

The task force has set a general guideline that recommends 60% of course content be delivered by two way interactive desk top video (e.g. PictureTel[5] or CLI[6] units) and 40% by other electronic means, such as chat rooms, WWW, e-mail, video or audio cassettes of lectures, and other materials. The 60/40 allocation is a guide and not a constraint. Any given course, depending on its intellectual, scientific, and pedagogical needs, is permitted to vary this mix. There is one binding constraint: all instruction and other pedagogical and administrative business of the courses will be conducted by some form of electronic technology. Thus, surface mail and fax will only be used as a backup. Courses will have their own web site which gives students access to the syllabus, on-line lectures, assignments, topic chat rooms, lecture schedule, links to readings and resources, and links to videos, compact disks, audio tapes. Lectures presented on two way

desk top video will be digitally recorded and made available to students via electronic means. Portions of the online lectures may be edited and retained for use in subsequent offerings of the course.

Instructors are free to deliver their courses in many different ways. For example, an instructor could present some portion of the contact hours in a lecture format and use the two way desk top video as a form of seminar discussion to go over the materials or set key concepts in place and apply them. Or, the instructor may intersperse live two-way desk top video with video or audio cassette presentations of their own lecture material. Chat rooms can be used to establish a discussion group in which one person per week is given an assignment to report on and the rest of the class then comments on the presentation, or used as a free flowing mechanism to discuss course material and case studies.

Project Assessment and its Future

VCBE classes will be assessed by comparing students in VCBE with students at the Pullman campus taking courses in the traditional manner. Criteria for comparison will be grades in courses, student assessment of classes and instructors, and ETS scores in Business (taken during the final semester of course work). Multivariate statistical analysis will be used to control for differences in measures not due to course pedagogy. If this pilot project is successful it will be expanded to learning centers across the state and to community colleges and learning centers across the nation.

References

[1] WSU Cooperative Extension College of Agriculture and Home Economics Washington State University Web Site, http://www.cahe.wsu.edu/ce.html.

[2] WSU Extended Degree Program Web Site, http://www.eus.wsu.edu/edp/.

[3] Washington Higher Education Telecommunication System Web Site, http://www.wsu.edu/ETT/WHETS

[4] Yahoo listing of distance learning sites, http://www.yahoo.com/Education/Distance_Learning

[5] PictureTel Web Site, http://www.picturetel.com

[6] Compression Labs Inc. Web site, http://www.clix.com

[7] University of Michigan Global MBA Program, http://www.bus.umich.edu/degree/mba/special/gmba/gmba.html

[8] University of North Carolina Executive MBA, http://www.bschool.unc.edu/executive/programs.html

[9] Duke University Global Executive MBA Program, http://www.fuqua.duke.edu/programs/gemba/index.htm

[10] Virtual WSU Program, http://www.wsu.edu:8001/vwsu/vwsu.html