DOCUMENT RESUME

ED 435 800 CE 079 322

AUTHOR Zirkle, Chris; Ourand, Donna Brooks
TITLE Teaching a Course through Multiple Delivery Systems: Some Lessons Learned.
PUB DATE 1999-10-25
NOTE 6p.; Paper presented at the Indiana Postsecondary Education Conference (Muncie, IN, October 25, 1999).
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Communications Satellites; Consortia; Conventional Instruction; *Delivery Systems; *Distance Education; Educational Benefits; *Educational Improvement; Educational Needs; Educational Practices; Evaluation Methods; *Faculty Development; Higher Education; Instructional Improvement; Internet; Multimedia Instruction; Nontraditional Students; Student Evaluation; Teacher Student Relationship; Teaching Methods; *Technology Education; Videotape Recordings; *Vocational Education
IDENTIFIERS *Indiana State University

ABSTRACT

In recent years, increasing numbers of nontraditional students have begun pursuing bachelor's and master's degrees in human resources development, technology education, and vocational-technical education in the Department of Industrial Technology Education (ITE) at Indiana State University. In 1998, the ITE department expanded the options available to these students by offering courses through the Indiana Higher Education Telecommunication System (IHETS), which is a state-funded consortium of eight college and university campuses that was initiated in 1967. Students now have the option of taking courses through one of four delivery formats: traditional on-campus delivery; IHETS satellite transmission to 325 sites; videotape; and the Internet. The transition to instruction through multiple delivery systems has given rise to several issues and concerns including the following: (1) in most cases, students and faculty have no eye-to-eye contact; (2) assessment of students at various "distances" can be problematic; and (3) teaching courses through multiple delivery formats requires high levels of expertise on the part of faculty. Solutions developed to address these issues/concerns have included the following: (1) enabling off-campus students to communicate with faculty via e-mail, telephone, and satellite transmission; (2) arranging for proctored examinations at remote sites; and (3) offering faculty training sessions on creating Web pages and Internet courses. (MN)

Teaching a Course Through Multiple Delivery Systems: Some Lessons Learned

Chris Zirkle, Ph.D
Donna Brooks Ourand
Indiana State University

Presented at the Indiana Postsecondary Education (IPSE) Conference
Ball State University
October 25, 1999

The nation's colleges and universities are facing several challenges impacting the nature of courses and degree programs they offer. Ever-increasing competition for students and calls for improved "ease of access" have driven institutions to create innovative approaches to course delivery methodologies and degree requirements. Many students want to pursue degrees without relocating to retain their current employment or for other reasons. Legislators and taxpayers have called for better quality and more accountability in postsecondary education. In response to these pressures, many institutions are seeking to improve their educational programs with new information technology tools.

Reasons for Implementation

The Department of Industrial Technology Education (ITE) at Indiana State University (ISU) offers bachelor's and master's degrees in human resource development, technology education, and vocational-technical education. Recently, the programs have faced enrollment challenges, as competition from other educational institutions began to intensify. The department also began to recognize many students interested in the programs were "non-traditional"; employed professionals seeking new skills and knowledge, older students with Associate's degrees seeking a Bachelor's degree, or adults simply wishing to make a career change. Many of these students were time-bound and place-bound. They were unable to come to campus and participate in a traditional on-campus degree program.

Multiple Delivery Methods

The ITE department began offering courses in 1990 through the Indiana Higher Education Telecommunication System (IHETS), a state-funded consortium of eight member college and university campuses initiated by the 1967 Indiana General Assembly. This system utilizes digitally compressed satellite technology to reach over 325 sites across the state. IHETS sites include many of Indiana's college campuses, public schools, libraries, hospitals, and other easily-accessible facilities. One of the several IHETS studios at Indiana State University serves as the classroom for on-campus students, from which they can interact with students at other IHETS sites as well. This arrangement also allows for videotaping of classes, which are distributed to students at a distance with no access to an IHETS site. In 1997-98, the ITE department added Internet

courses. With this, students have the option of taking courses through one of four delivery formats: traditional on-campus delivery, IHETS satellite, videotape, and the Internet. As of the fall of 1999, approximately 25% of the students are on-campus, 25% are utilizing the IHETS system, 5-10% use videotape and the remainder are taking courses on the Internet. The Internet group is the fastest growing. Many students experiment with different methods, taking some courses on campus and others via other delivery methods.

Each faculty member in the department teaches at least one course each week via multiple delivery. He or she teaches the traditional course to on-campus students in a specially designed studio while distance students at the various satellite sites participate simultaneously. After each class, videotapes of the session are mailed to those students who have requested that mode of delivery. The instructor then accesses the course Web site and posts lecture notes, presentation slides, audio/video files, and other information that students taking the course via the Internet may need. Some faculty use Blackboard Inc.'s CourseInfo software to support their Web instruction; others have custom-designed their own course sites.

Interaction Issues

Delivering courses in a number of different formats has created interaction issues for both faculty and students. With the exception of on-campus students, a lack-of eye-to-eye contact is an issue for IHETS, videotape and Internet students. Faculty are unable to view student visual reaction to the presentation of material. There are limitations on some types of learning activities. Group, cooperative activities are limited, as are "hands-on", psychomotor activities, especially for Internet students. Student participation can be difficult to monitor for faculty as well. Finally response time is a concern for videotape students. They receive a videotape of the class several days after it is broadcast on IHETS. They have to view the tape, and then make any inquiries to the faculty afterward.

Assessment Concerns

With students at various "distances", it can be problematic to assess student performance. It is difficult to monitor work ownership, to ensure students are truly doing their own work. The issue of class participation can also be an assessment concern. The level of class participation can be difficult to judge when the student is in a satellite TV studio 150 miles away, or sitting in front of a computer screen. Faculty are also challenged to return student work in a timely fashion, especially when it arrives via regular mail, email, fax, or in person.

Some Solutions

On-campus students can meet with professors before and after class meetings and have access to five computer labs to e-mail their instructors, participate in live chat sessions, and complete assignments. For students participating from off campus, faculty

supplement e-mail and telephone contact with a variety of other options: IHETS students can communicate with faculty through satellite transmission, which allows for audio communications. Students taking courses via videotape send written reactions to their instructors via mail, fax, or e-mail on a weekly basis. Internet students utilize mailing lists, chat rooms, and discussion boards to communicate with faculty and other students. Faculty have also experimented with online "office hours" where students can log on at specified times and talk with the instructor via an office "chat room."

Faculty have arranged to have exams proctored for students at remote sites. Faculty also develop multiple versions of the same exam and distribute them randomly as a way to discourage "community learning" on exams.

Faculty Development

Obviously, teaching courses through multiple delivery formats requires a high level of expertise on the part of the faculty. Faculty development is a top concern. Most need familiarization with the university computer network, which is a mixed Novell and UNIX environment. The ability to create web pages and Internet courses is a necessity. Perhaps most important is the ability to transfer traditional, standard course material to the satellite system and the Internet. These needs, along with others, have created numerous professional development challenges for faculty.

Some Solutions

Many faculty in the ITE department have participated in training sessions to learn how to utilize the various technologies that support multiple delivery platforms. Indiana State University sponsors the Course Transformation Academy (CTA), a development program designed to give faculty members the time and resources they need to investigate, create, and utilize alternative instructional strategies. The CTA offers semester-long workshops for groups of 15-20 faculty members, as well as an intensive, one-week summer workshop.

Participants use hands-on projects to learn about creating Web-based, broadcast, and interactive video courses and about incorporating supplementary technologies—such as videotapes and audio-conferencing—into their instruction. As they work with the technologies, faculty members use asynchronous and synchronous tools to discuss pedagogical issues, course design considerations, and assessment strategies. They receive information about three important subjects: the University's policies on intellectual property and copyright fair use, its distance education student services, and University resources available to assist faculty members in course development and delivery. During the CTA, participants have opportunities to work on aspects of their own courses as they complete projects designed to enhance their technological competencies.

Indiana State University also has a Faculty Computing Resource Center (FCRC) designed to provide faculty with one-on-one consultations and conduct workshops and demonstrations on a wide range of topics, such as Web page construction, video and audio streaming, and graphics development. Full-time technical experts staff the FCRC,

but much of the assistance provided to faculty is given by part-time student workers, who are in many cases very familiar with specific software applications, Web page development, and audio or video manipulation.

Much faculty learning is "on-the-job" and from each other. Faculty share experiences and ideas, along with new discoveries, many made by trial-and-error, as they work with the multiple delivery format.

Other Issues

All these issues have created other concerns for faculty, not the least of which is the time constraint that is imposed from the multiple delivery modes. While the maximum number of students in an ITE course is generally capped at 40, the number of distance students can easily be 75% of that total. That results in a significant number of emails, phone calls and other requests for information from distance students that do not have immediate classroom access to the instructor. Faculty are given the equivalent of a two-course "load" for each multiple delivery format course they teach. As the programs have grown in popularity, class size continues to be an issue.

Faculty are many times the first point of student contact for technical problems. While technology has certainly allowed the department to deliver the courses, it is not foolproof. Students have periodic problems with the satellite transmission, and many experience difficulties with accessing course sites on the Internet and performing such tasks as live chat or on-line office hours. While the university has established a toll-free technical support line, students still turn to the course instructor for many concerns. This creates yet another time constraint for faculty.

The ITE department is also concerned with issues of quality and consistency. Are all four groups receiving the same level of instruction? Is there enough interaction for distance students? Do on-campus students get the same exposure to technology that distance students receive? These issues are discussed are discussed on a frequent basis by ITE faculty.

Positive Benefits

The multiple delivery format has produced several positive benefits for students and faculty. The department has experienced increased enrollment; most classes offered by the multiple delivery format in the fall of 1999 were closed due to high enrollment. The student demographic has also changed. Because of the increased ease of access, more nontraditional students have enrolled. Additionally, at the undergraduate level, a partnership between Indiana State University and Indiana's Technical Colleges (IVY TECH), has allowed students to earn postsecondary degrees through a set of "2+2" articulation agreements. Students who earn an associate's degree at IVY TECH can transfer their earned course credit to Indiana State University, then enter ISU with junior-year status. Two bachelor's degree programs - Human Resource Development and

Vocational-Industrial Technical Education, are offered through the multiple delivery format.

Faculty, despite the increased workload, see the multiple delivery format as a professional growth opportunity. It has required them to keep current with the latest instructional technologies and computer hardware/software changes. It has also allowed them to "extend their sphere of influence" from beyond the traditional campus. The department now has students from Michigan, Missouri, Pennsylvania and Texas. Most believe it has helped strengthen both the content of, and discussion in, classes.

The multiple delivery format is firmly established in the department. All faculty are expected to deliver courses in this manner. It has enabled the department to deliver courses to meet the specific learning needs of their students, no matter where they are located. This outreach has allowed the department to remain competitive and accountable in today's postsecondary marketplace.

CE079322

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Teaching a Course Through Multiple Delivery Systems: Some Lessons Learned	
Author(s): Chris Zirkle and Donna Ourand	
Corporate Source: Indiana State University	Publication Date: October 25, 1999

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 1	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2A	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2B
Level 1 ↑ ☒	Level 2A ↑ ☐	Level 2B ↑ ☐
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Chris Zirkle Donna B. Ourand	Printed Name/Position/Title: Chris Zirkle/Asst. Professor Donna B Ourand Director, TSC
Organization/Address: Indiana State University Dept of Industrial Technology Education Terre Haute, IN 47809	Telephone: 812 237-2648 FAX: 812 237-2655 E-Mail Address: C-Zirkle2@indstate.edu Date: 11-1-99

(over)