NACTA '97
ABSTRACTS

The Development and Delivery of an Internet-Based Wilderness Management Course

The University of Montana's Wilderness Institute School of Forestry, and Center for Continuing Education, and the Carhart National Center for Wilderness Training, provided an Internet-based wilderness management class to 23 students majoring in Natural Resources Management at the University of Minnesota, Crookston, winter quarter of 1996-97.

The course was designed to increase the student's ability to interact among themselves and the instructors, as compared with more traditional distance education delivery techniques. The interaction was facilitated through the use of Network News Groups, chat rooms and email, and live Internet conferencing. Using the Internet as a resource, the assignments were designed to help students gain mastery in accessing and integrating wilderness information available from government agencies, universities, and non profit groups and to apply that information toward real world management problems.

The use of this multi-layered educational delivery system allowed the students at a relatively small, remote campus to access training, resources, and expertise available through a nationally recognized center for wilderness management and philosophy. Conversely, this arrangement allowed the wilderness management distance education program the ability to expand it's audience from the traditional field manager to the college environment. The experimental nature of this offering provides an opportunity to assess educational outcomes, institutional cooperation and the emerging role of distance learning in higher education.

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Recognizing and Bridging the Distance -- A Case Study with Visual Teleconferencing

The rapid advance of technology with its associated social, economical, and technical impact offers great versatility and feasibility for educators. Distance technology promises greater student access, but also a new environment for teaching and learning. As more and more individuals and institutions integrate the idea of teaching students at a distance, it becomes less a question of whether technology works, but rather how to make it work.

In the distance environment, few if any face-to-face meetings of teacher and students are planned. Attaining interaction without seeing a face poses a challenge. The distance environment can create not only a physical separation but also a psychological barrier between participants. In this case study, a Visual Teleconferencing System (VTS) which utilizes two phone lines, one for voice and one for computer connection, is relatively inexpensive and provides good access to distance students. Utilizing such technology is more than placing a piece of equipment in the classroom. It brings about fundamental changes in the dynamics of teaching and learning. Elements for interaction that are available in a regular classroom can be absent at a distance. Distance technology, however, provides new possibilities for interaction. Recognizing the differences in both environments is thus essential to bridge the distances.

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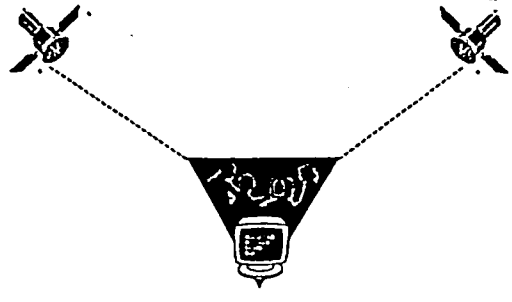

Bridging The Distance: Linking Current Students With Alumni Via The Internet

Currently-enrolled agricultural students are often extraordinarily interested in career opportunities, how to interview and acquire a good job, and what life in the "real world" will be like after graduation. To better meet this informational need, several strategies of linking current students with former students will be described and evaluated. The development of an "Alumni Career Bank" on the Internet provides current students with the name, job title and description, address, phone number, and e-mail address of former students. The Career Bank offers numerous opportunities for both teachers and students, including: (1) teachers remain in close contact with Alumni, (2) current students can contact and learn from former students, (3) Alumni remain in close contact with their classmates, and (4) recruiters and employers can look for qualified individuals to fill potential employment opportunities. Teaching applications of the Career Bank will be presented and critiqued, such as: (1) class assignments which require Alumni interviews, (2) inviting former students to present a guest lecture, and (3) using the Career Bank to facilitate Alumni gatherings and the development of an Alumni Advisory Board. These strategies can provide students with accurate and timely information about the career opportunities and experiences of former students.

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Easy and Inexpensive: Tape-and-Send Courses

Eastern Oregon University has been a leader in distance education for several years. Oregon State University, for the past four years, has offered agriculture courses via video tape, through EOU's Department of Extended Programs. Normal, on-campus courses are taped, and made available to place-bound students.

The program is self-supporting, but tuition is about 30 percent higher than resident fees. Students tend to be older and attain slightly higher levels of competency. Course completion rate has been approximately 90 percent. Unresolved issues include: laboratory instruction, degree residency requirements, and instructor compensation. The delivery system, overall, has been very well received by students.

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Student/Faculty Communications When Learning Is Asynchronous

This presentation is a case study of a university level farm and ranch management course that was first offered via distance learning Spring Semester 1997. The content was fundamental management concepts and analytical tools. Enrollment included traditional on-campus students and off-campus students. Course content was available via audio tape, video tape, course packet of handouts and exercises, and textbook. A newsletter contained announcements and information about class performance on exercises and tests. An optional electronic discussion group was not widely used. Communications with individual students included regular mail, e-mail, telephone, and visits to the instructor's office. Effectiveness of these communications was subjectively evaluated based on observations, student evaluations and student performance in the distance learning course relative to the Fall Semester 1996 traditional on-campus course. Such evaluations are precarious because complexity and lack of research control and statistical tests make it difficult to identify cause and effect. However, until more formal research is available and acceptable to instructors, instructors will pursue communications based on their perception of what is effective and students will express their views and desires for communications by means of course selection, use of communication alternatives available, and student evaluations.

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Strategies To Increase Research Publication Success

Research and publications are a critical component of faculty success. Further, they often are a springboard to better teaching and professional service leadership roles. The primary objective of this presentation is to lay out and discuss some key publication strategies which this instructor believes will improve the publication success rate from a cost benefit (time efficient) point of view. Time is the most scarce resource when balancing faculty commitments, and time saved by doing efficient research can be devoted to teaching. In summary, the strategies are presented with the objective of being helpful in starting/continuing the process of publication and positive feedback on the most time-efficient basis possible.

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IPM-A Problem Based Learning Approach.

The Cal Poly philosophy of "Learn and Understand by Doing" has been integrated with problem based learning and the use of the latest pest control technology into a class which closely simulates real-life pest control situations. Goals of the class, Disease and Pest Control Systems for Ornamental Plants, are to teach students pest monitoring, control, and problem solving techniques, the use of resources including the internet and journals, and the use of the latest pest control equipment and application techniques. In the class, students are shown pest situations and then work in groups to diagnose the problem, investigate management strategies, apply control measures, and monitor results. Weekly class presentations inform the class of the various projects and help to teach the groups organization and presentation skills. Student evaluations and test performance have demonstrated that students achieve class objectives substantially better with the problem based learning approach than with the previous lecture based approach to the class.

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The Art and Science of Teaching at a Distance

Many new, exciting ways of teaching at a distance are being unveiled almost every day. One of the most common ways of teaching at a distance is satellite delivery of a course, and faculty members often make their initial venture into distance teaching via this mode. The translation of traditional classroom teaching into teaching at a distance is challenging to say the least. Experimentation with new modes of teaching, however, can lead to more creative and effective teaching and learning. Teaching "live" via satellite need not be one-way lecture; television instruction can be designed to be interactive, performance-based, and community-building. Changing satellite-delivered courses into a sustainable format can involve multiple methods, such as audio-conferencing, electronic discussion groups, videotaped materials and live presentations. Using services of external resource persons, such as an instructional consultant, can help faculty gather feedback from campus-based students, distance students, site facilitators, and technical staff and help improve instruction during course delivery as well as for future applications.

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Facility And Program Planning For Distance Education Delivery

The Ohio State University at Wooster, Ohio, has embarked upon the development of a state-of-the-art distance education and teleconference facility. Planning for the facility was initiated in 1990 and is scheduled to go on stream in 1999. The pro-posed facility has been named the CEED Center (Center for Education and Economic Development). The project is a collaborative effort between The Ohio State University, the Ohio Legislature, and Ohio business and agricultural industries. The first phase is being directed by a facility planning committee. A second phase has been recently initiated and is being directed by a program planning committee. The objective is to have programming ready to begin as soon as facility construction is completed in 1999. Planning for the facility has been a long and tedious process with several site and plan modifications. The facility will be connected to an existing building that contains a 1000-seat auditorium. Components of the development process include: (1) identifying need for such a facility and programs, (2) formulating a vision, (3) collaborating with various stakeholders (university, government, industry), (4) adaptability in planning, (5) patience and persistence, (6) incorporating the latest technology, and (7) initiating a program planning component before facility construction is completed.

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Transforming Higher Education in Renewable Resources Management in Iowa

Land grant colleges were early leaders in the field of natural resources management. As in the past, sustainable ecosystems depend upon wise management of renewable resources, including soil, water, forests, and wildlife. Since Iowa's land grant institution and the Iowa community college system share a responsibility for public higher education in natural resources conservation and management, there is a clear need for cooperation among the institutions to improve student access to course offerings, provide better counseling of students, and to facilitate communication and continuing education of natural resources faculty.

In 1996, VISION 2020 funded a project to address the transformation of higher education in conservation and management of renewable natural resources in Iowa. This renewable natural resources education project was based on the recognition that natural resources management could be presented to better meet the career objectives of many students through a cooperative effort of Iowa State University