In response to demands to incorporate distance delivery and technology into education to increase access and decrease costs, Mount Royal College in Alberta, Canada, has developed a multi-modal model of distance delivery to enhance learning. The model includes eight modes of distance instruction, each with its benefits and challenges to implementation.

Paper-based distance education material is flexible, inexpensive to produce, and user friendly, but dependence on surface mail for distribution can be expensive and complex. Audio and videotapes are also produced and purchased by the college, while these methods also face problems related to delayed booking by students, slow surface mail, and late returns.

Audio-teleconferencing represents a highly effective method of increasing interaction among learners and instructors, but may involve high long distance charges for telephone lines, while video-conferencing also increases interaction but may also be limited by high costs. Telephone teaching involves student-teacher interaction on a one-to-one personal level, with specific instructor hours devoted to telephone contact. Digital technology eliminates surface mail and increases accessibility for some students but also requires experts and student access to the technology. In implementing these innovative programs, college leaders have had to manage daily operations, as well as understand the impact of innovations on programs. Leaders have also been called upon to act as pioneers, problem-solvers, consultants, cheerleaders, role models, mentors, and coaches. (TGI)
FROM ON-SITE TO DISTANCE EDUCATION:
A HIGH WIRE ACT IN
INNOVATION AND LEADERSHIP

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Paper Presented at the
Sixth Annual International Conference for
Community & Technical College Chairs, Deans, and Other Organizational Leaders
February 12 - 15, 1997
Reno, Nevada
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Brenda has 26 years of experience in Critical Care Nursing practice and education. She has extensive experience in distance education. She developed the post RN certificate program since 1988 and has since coordinated its transformation from onsite study to distance study. The program is presently delivered to 300 distance students in Alberta, Canada and Internationally. The program now offers an Emergency Stream of distance study and the first in a series of Web-based courses. Brenda is also coordinating the development and implementation of a distance Forensic Studies Program, using a web-guided approach.

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From On-Site to Distance Education: A High Wire Act in Innovation & Leadership

Introduction

Managing an innovative distance delivery program in a traditional on-site college is like walking a tight rope without a net. For years we took steps on the high wire to enhance learning using technology. We were virtually on our own and generally unnoticed in our college, as distance education was unique to our programs. But, now there are strong driving forces in education and government pressing colleges to incorporate distance delivery and technology to increase accessibility and flexibility while decreasing costs. In response to these demands, Mount Royal College, Calgary, Alberta, Canada has adopted a vision to transform learning using innovative technology to meet the future needs of students in the new century. Administrators and colleagues are now investigating our high wire distance delivery act and some are developing their own act! We now have the support and encouragement of the college to enhance our programs and share our experiences with others.

While exciting, this challenges us to balance the role of program manager with distance/technology consultant, as we are pressed into new roles in the college at large. As early adopters of technology, in addition to our leadership responsibilities within our own programs, we have the added role of teaching our colleagues how to transform their programs to distance delivery and incorporate technology. Our roles have expanded to include those of consultants, pioneers, mentors, role models, cheerleaders, encouragers and problem-solvers. This paper briefly outlines the challenges we experienced transforming our own programs from on-site to distance and the incorporation of technology to enhance learning. Specifically, we address our multi-modal model of distance delivery -- from print-base to Internet. We will explore our new leadership roles: first, as program leaders continually striving to understand and evaluate the impact of distance learning techniques on our programs and second, as first adopters of distance education technology within the college.

In addition, during the conference presentation, selected issues related to transforming a program to distance delivery will be facilitated through small group discussion and will include questions such as:

- How do we nurture and support faculty who want to do it in a big way, a small way or who do not want to do it at all?
- What are the upsides and downsides to various modes of interaction with students (print, video-conferencing, telephone teaching, e-mail, computer conferencing, courses on the Internet)
- Where will distance programs and technology be in the year 2000?
Challenges of the Transformation from On-Site to Distance & Incorporating Technology

Transforming onsite courses to distance courses requires us to develop innovative techniques (ways) to interact with our students. A multi-modal delivery model has been developed that includes the following modes: paper-based, audiotapes, videotapes, audio-teleconferencing, video-conferencing, telephone, seminars and digital technology. Each mode presents its advantages and challenges.

**Paper-based**
A package of print material is developed by a team of experts including a content expert, editor, instructional designer, graphic designer, copyrighter, publisher, typist, and curriculum consultant. Print material is generally original material with the addition of journal articles, pamphlets and textbooks. Innovative techniques are designed to engage the learner in meaningful learning activities. A “Docutech” (computerized) printer offers us flexibility to make changes and print on an as-needed basis at low cost. Print materials have been evaluated by students as high quality, reader friendly, interesting, current and meaningful.

The challenge or downside to print material is the cost and complexity of surface mail. Students in remote areas or out-of-province or country often receive materials late. Efficient purchasing and distribution systems are required that are not often available in a traditional onsite-study college.

**Audio and Video Tapes**
Audio and video tapes are produced by the college or purchased and stored in the library which distributes to students through a lending system. Again delayed booking by students, too few copies, slow surface mail, and late return may impede effective use by the students. Also, this media may be lost in the mail.

**Audio Teleconferencing**
Because 99% of students have access to a telephone, this medium may be used to increase interaction among learners, and between learners and instructors. Audio-teleconferencing is used successfully, not for lecturing, but rather for discussion, discourse and socialization. Successful activities include: case studies, learner presentations, role play, and guest-expert conferencing. Difficulties with audio conferencing include: telephone distance costs to students from home sites and bridging and site booking and costs, especially outside the province. Students may not be willing or able to travel to a centre in their area to access the audio conference.

**Video-conferencing**
Our new distance technology centre now offers us a means to video-conference using “Picture-tel” to various sites. It was first piloted in November of 1996. Again, rather than lecture style classes, this mode offers a means to foster discussion among
students and teacher from a distance. It allows, face-to-face interaction, use of multi-modal tools and synchronous feedback.

The limitations of this mode centre around cost, availability of video-conferencing sites in remote or out-of-country areas. As well, some students are hesitant to travel to the site and prefer at home study modes.

**Telephone Teaching**

Telephone teaching involves student-instructor interaction on a one-to-one personal level. The instructor, in the role of mentor/coach/facilitator, guides the student to appropriate resources, advises, counsels and clarifies concepts. Interaction via telephone is popular and successful. Specific teaching hours are devoted to telephone contact with students. Student cost has been minimized by toll-free 1-800 numbers. Voice mail and answering machines facilitate contact and messages. Operating four distance delivery programs on a single 1-800 line has become more complex as the departments have grown and demand more branching out.

**Digital Technology**

We are currently incorporating digital technology to enhance instructor-student interaction through e-mail, computer conferencing, on-line bulletin boards, on-line assignment submission, Web-search, and on-line course materials. The last year has seen a leap into the new information age in that two courses have been redeveloped for Web-delivery. Advantages to Web-delivery include: elimination of surface mail problems, learners can learn anyplace anytime, reduced program costs (once developed), increased options for learners, highly interactive - not just print materials on screen, and learner-instructor computer competency.

The use of Web-ready CD-ROM courses will also be developed. This method may prove to be less costly than preparing course for Web delivery.

Challenges with digital technology include: requires team of experts to develop a course, requires student access to computer software, hardware, Internet service provider, high costs of development, cost effectiveness is unknown, instructor development time is substantial, electronic copyright issues are still not clearly defined, learning outcomes are unknown, instructor role changes to facilitator/coach, teaching time required is unknown, and it is limited to students who have access to the technology.

In summary, the multi-modal delivery model affords us varied means to facilitate interaction and learning of our students any time, any place. The modes selected for a particular course will depend on: goal/purpose of the course, nature of the content, technology available to the learner, faculty motivation, skill, creativity and constraints of resources.
Leadership Roles

The poster created for this conference provides an emotive visual image of what it can be like as a leader in this educational environment. The chair on the high wire portrays the balance act required to perform the daily tasks and challenges of managing a program. The saw blades, fire and nasty creatures depict the additional challenges that complicate the task of maintaining one's balance on the wire. There is no safety net illustrated on this poster, which may be an accurate depiction of reality for chairs who are, or intend to, enter the world of distance education using innovative technology.

In addition to managing daily operational tasks, program leaders or chairs must anticipate, understand and evaluate the impact innovations have on programs. Leaders are required to adopt several roles to successfully carry out these tasks. Examples of a few of these roles are provided.

Leaders are often called upon to be pioneers. Charting new territory is a lonely role. Significant amounts of energy are required for all of the stumbling and gambling inherent in being a pioneer. For example, in one of the distance programs the program coordinator is exploring the laws related to electronic copyright. To this point, little has been established in this area.

Problem solver is another familiar role. One challenging task has been developing a process that provides fast turn around time for the team involved in writing a course to put on the Web. Using the technology, the four parties (writer, editor, curriculum reviewer and media producer) were able to connect through the Web so that files could be transferred and edited by all parties simultaneously.

The role of consultant is common. The program coordinators offer advice to other coordinators within the college regarding distance delivery modes and support systems. They present and demonstrate to interested academic leaders within the college, and teach and guide colleagues who are unfamiliar with writing distance courses.

As cheerleaders, the distance program leaders attempt to instill enthusiasm where it is waning. For example, considerable positive talk is required when one of the writers gets bogged down in the writing process or is venturing into unfamiliar areas (e.g., incorporating new technology). Instructors who identify creative ideas that promote the adaptation of new technology, require a leader who does not hesitate to be supportive and understanding. A paramount activity of the cheerleader is to offer praise and reward for innovation and progress.

As role models, leaders set standards and emulate values. For example, instructors who are new to distance delivery need to see different methods of teaching by telephone. The leader is able to share what has proven to be successful as well as encourage the new colleague to discover new ways of teaching with this technology.
The leader is also a mentor. As colleagues explore distance education, program coordinators have been called to establish mentoring relationships. For example, during the ongoing process of developing and implementing the courses in forensics, the coordinator of critical care nursing mentored the writer and program designer of forensics.

Distance program leaders are coaches. They nurture and support those who are hesitant and non-risk takers and meanwhile encourage the early adopters and all those in between.

Another challenge is coming to terms with the shifting environment of distance technology while working within systems that are slow moving and rigid. It can be frustrating and paralyse a leader from being responsive.

Inherent in being a first adopter comes the challenge of having people observe, but not necessarily participate. It is analogous to people intently watching a hire wire act, but being fairly certain they do not want to be on the high wire themselves. Leaders who operate in the world of distance education and innovative technology need to be highly motivated and confident in their roles and with their own tasks, so they can enthusiastically invite others to join them.

Summary

The multi-modal delivery model provides opportunities to interact with our students in innovative ways. While the technologies we incorporated in our distance delivery programs offer advantages to our students and instructors, we as program leaders must address the challenges inherent in these methods as we manage the programs. The ever changing area of technology and its application to distance education, requires program leaders to be independent risk-takers, open to creative ideas and willing to work in a constantly changing environment. Many times we have likened this role to balancing on a high wire without a net. However, as we spend more time on the high wire, we see the task of balancing on the wire may be less lonely if more colleagues join us and the fear of starting one’s own high wire act may be reduced if administrators provide safety nets of support. We look forward to the future when managing an innovative distance delivery program may be more like a walk in the park.
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(Rev. 6/96)