BLENDED/FLEXIBLE LEARNING IN BUSINESS SCHOOLS: CHANGE AND CURRICULUM REDESIGN IN HIGHER EDUCATION

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ABSTRACT

The traditional lecture method has not only persisted in modern day universities, it has become entrenched as part of a university tradition. This presents a challenge to curriculum designers and planning teams in being able to blend traditional approaches to teaching and learning with the resources now available through Internet technologies. This paper presents a discussion on how the integration of face-to-face and web-based learning can be blended to create an effective teaching and learning environment. This paper also includes an example of how, in one course, the teaching and learning approach was designed to create a successful blended learning environment.

INTRODUCTION

Before the printing press emerged and books were scarce and prohibitively expensive, lecturing to the masses was an effective and efficient way of disseminating knowledge. Today, information (both digital and print-based) has never been more accessible to the masses. Yet the lecture method has not only persisted in modern day universities, it has become entrenched as part of a university tradition. Further, higher education is facing the reality that the lecture method has a limited effect in the process of knowledge construction. A primary obligation of a research university should be to engage students in active, intentional, and collaborative knowledge-building communities – or communities of inquiry.

We hardly need to be reminded that universities are the most notorious resisters to change. While we accept the claim that many, if not most, universities are resistors to change, some universities are carefully rethinking their undergraduate teaching practices. In particular, some universities have turned their attention to the traditional three lectures a week and have begun exploring the meaningful integration of information and communication technologies. The results of these early explorations reveal that universities can successfully address many of the challenges and criticisms we face with teaching practices – in particular those of large undergraduate courses – through fundamental redesign that thoughtfully integrates Internet information and communication technologies. This integration of face-to-face and web-based learning is most commonly referred to as blended or flexible learning.

Blended learning is not a substitute for real time face-to-face learning. When thoughtfully designed, blended learning approaches offer opportunities to enhance the campus experience and extend learning through the innovative use of Internet information and communications technology. Reflective asynchronous text-based discussions and inquiry-based learning approaches complement spontaneous verbal classroom discourse and lectures very well. In this way, blended learning combines the strengths of each delivery mode to provide a unique quality enhanced educational experience. As such, blended learning approaches provide a realistic means for universities to fully realize the dialectical values they profess. At its core, blended learning is the thoughtful integration of face-to-face classroom and online educational experiences. Blended learning provides the potential to create an accessible interactive community of inquiry. It combines the rich dynamic of fast-paced verbal dialogue with reflective and precise written communication. Integrated capabilities have real potential to provide open dialogue, access to relevant information, critical debate, and negotiated agreement– the hallmark of a university education – all in a cost effective manner.

RETHINKING OUR LEARNING ENVIRONMENTS

Blended learning offers opportunities to enhance the campus experience and extend learning through the innovative use of learning technologies. More interactive and effective learning activities are facilitated by technology that include automated self-assessment quizzes, peer-to-peer online discussion groups, simulations, online portfolios, online tutorials, digital learning object repositories, and online inquiry or research activities. For example, a blended learning design might replace one or two classes of a typical three class per week course with online discussions, a collaborative assignment, or individual tutorials. For large enrolment classes, this would be made possible by the appropriate utilization of graduate teaching assistants. There is strong evidence of the potential of blended learning to envision new approaches to enhance learning with diminishing resources.

Promising solutions are emerging from the Program in Course Redesign undertaken by the Pew Learning and Technology Program [4]. All 30 institutions involved have reduced their costs by 40% on average (from 20% to 86%.) Collectively the 30 courses project an annual savings of $3.6 million. In addition, each of the 30 institutions has conducted a rigorous evaluation focused on learning outcomes as measured by student performance and achievement. Results to date show improved student learning in 19 of the 30 projects, with the remaining 11 showing no significant difference. Other outcomes achieved by the redesigns include increased course completion rates, improved retention, better student attitudes toward the subject matter, and increased student satisfaction with the mode of instruction compared to traditional formats. *We believe that redesign is the watchword of technology's promise for higher education* [emphasis added] [3]. The experiences of these universities [3] have shown that blended learning approaches, particularly in large enrolment courses, can be very cost-effective.

However, if blended learning is to have a significant innovative presence, strategic institutional issues must be addressed. In 2002, the University began to realize that it needed to focus on process issues and adopted inquiry-based learning as the defining feature of the University's approach to teaching and learning. At the same time, it was realized that true inquiry approaches could not be realized without capitalizing on the potential of communications and information technologies. While blended learning could have a tremendous beneficial effect (convenience and quality) for both faculty and students, the vision and incentives are not in place to gain the attention and interest of faculty. The challenge is that faculty feel overloaded and they are not prepared to invest the time to bring themselves up to speed as to the benefits of blended learning without strong leadership and incentives. The strategy adopted by the University of Calgary is to create exemplars and provide the incentives that will convince busy faculty to consider blended approaches for teaching effectiveness and time saving for all concerned.

CURRICULUM REDESIGN: AN ILLUSTRATION OF BLENDED LEARNING

This section describes how one course offered by the Business School was redesigned to blend the use of technology with traditional teaching and learning approaches increase and flexibility. The problem facing designers of the second-year Information Systems course, was to conceive and implement a design that would meet the dictates of the industry and discipline; that would cater to the needs of a diverse cohort of students and yet still provide high-quality and effective education. Course designers met this challenge by offering a range of teaching and learning experiences incorporating the use of Internet technologies. Egbert [1] identified strategies that can be applied to almost any classroom situation to create an effective learning environment. These include: 1) Presenting occasions for learners to interact, 2) Providing an authentic audience and opportunities to negotiate meaning, 3) Creating and using real world tasks, 4) Promoting exposure to and production of rich language, 5) Providing learners opportunities to formulate ideas and thoughts, 6) Promoting intentional cognition, 7) Creating an atmosphere with optimal stress and anxiety, and 8) Creating a learner-centred classroom. The import of these strategies has been summed up by Gaies [2] when asserting educators must recognise and understand who their students are and where their experience and interests lie. They must also provide opportunities for stimulating learning and fostering interaction and collaboration between the students themselves and the teacher.

Presentation of the Course

While the research tends to support the contention that web technologies have potential for supporting an effective teaching and learning environment, its use must be carefully balanced against the desired learning outcomes. Therefore, course designers devised five broad educational objectives to underpin the course. The course learning objectives as well as ones for the web site were then derived. Ensuing design and implementation activities were undertaken within the bounds set by these educational and course learning objectives. The course is an introduction to systems analysis and design. A conceptual framework for the course was designed so the knowledge and skills needed by management students was organised into five key modules, which closely followed the phases of the systems development life cycle (SDLC). The appeal of this structure is not so much in the structure itself, but rather in how the second assessment item, the Progressive Project, is linked to it. The Progressive Project assessment item is tied closely to the output that would normally be produced from each phase of the SDLC. Tying the assessment requirements so closely to the output of the SDLC facilitates the students' understanding and comprehension of the relationship between theory and its practical application in the real world.

The course was designed to allow students greater choice of access, presentation format, and communication methods. Teaching and learning activities were structured around lectures (large group) and small group workshops. This approach allows for interaction and negotiation amongst learners by supporting real-time interaction as suggested by Egbert [1] in Strategies 1 & 2. Further, it exposes students to a rich and varied language and promotes intentional cognition (Strategies 4 & 6 respectively). Since students were able to download topic summaries from the web site, the focus of the lectures was in providing appropriate examples of how the theory was applied in a business environment (Strategies 3, 4 & 5) rather than disseminating information. The workshops facilitated the interaction of students with the teaching staff in a small group context (Strategies 1 & 8). Students were set exercises that could be completed in their own time and any problems or questions were handled most effectively during the workshop sessions (Strategies 1, 2, 3, 5 & 6). More difficult concepts were illustrated through interactive examples delivered via the Web site (Strategies 6 & 7). As part of the teaching strategy and to provide students with a sense of ownership and control, they formed informal study groups of 4-5 (Strategies 1, 2, 3, 5 & 7).

A Web site was developed to support the student-centred learning approach that is for student use and learning (Strategies 7 & 8) as well as being able to access e-mail and the World Wide Web. Students were able to access the site while on-campus or when off-campus so they could undertake learning activities at their convenience (Strategies 1, 2, 7 & 8). While the Web site provided a degree of independence and control for the students, they were also able to discuss and analyse study materials and assessment items during workshops (Strategies 3, 4, 5, 6 & 7). Students could see teaching staff outside classes at preset times as well as by appointment (Strategies 5, 6, 7 & 8). E-mail access was available at any time and staff would usually respond with 24-hours (Strategies 4, 6 & 7). A forum was provided so students could exchange ideas and provoke creative thought (Strategies 2 & 6); however, most preferred to use their informal study groups. The electronic noticeboard was used as a means of communication, motivation and providing feedback on assessment items (Strategies 5 & 6). The students also had access to self-assessment quizzes and checklists of learning objectives to test and verify their understanding of each topic in the course (Strategies 4, 7 & 8). A print version of the study guide ensured those students who preferred not to use the technology extensively were not disadvantaged (Strategies 7 & 8).

The one course element that was outside the student's control was the assessment items and the dates on which they were due. The course was assessed using concept tests and a group project. Self-assessment quizzes were available so students could test their understanding of course content. The concept tests were drawn from the question banks (Strategies 7 & 8). The material for the group project was drawn from an actual business problem and required the students to apply the theory and skills developed during the course (Strategies 3, 5 & 8). By using a real world problem for their assessment, students had to adapt the theoretical constructs to suit an actual problem environment. These activities provided another level of complexity to the learning (Strategies 5, 6, 7 & 8).

Final Comment

All educational objectives have been met in the design and implementation of the blended teaching and learning environment. Student performance had been enhanced through using this teaching and learning environment. However, care must be taken when interpreting the performance results and further analyses are required. Students appear to be satisfied with the effectiveness of the blended teaching and learning approach and their interaction with it. This contention is supported by the favourable responses to the open-ended questions in the questionnaires. The evidence suggests that the use of web technologies is an appropriate strategy for providing an effective learning environment for students. However, further research is required to determine the strength of that support. Nevertheless, it is clear that blending web technologies with traditional teaching and learning approaches can provide effective teaching and learning environments.

CONCLUSION

Blended learning is consistent with the traditional values and goals of higher education. It is a strategy built upon a progressive, systematic and thoughtful approach. Blended learning can transform our University in a manner congruent with our highest ideals. Higher education institutions must react to technological change with understanding and vision, but also with courage and decisiveness that will free resources to produce desired results and realize potential. To date, in terms of learning innovation and quality, most institutions of higher education can be fairly described as lurching about - fearful of being left behind but not committed to real change. Too many still believe universities can become outstanding learning organizations by continuing to do the same old things. The reality is that times and technology have changed – including societal expectations.

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