Chapter 5.31
Using E-Learning to Promote Excellence in Polytechnic Education

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ABSTRACT

This chapter describes the participatory role faculty members have played in the first year of a five-year initiative that uses e-learning to promote educational excellence in learning, teaching, and research at a polytechnic institute. It argues that faculty engagement will ultimately determine the success of this e-learning initiative and, as such, faculty need to be active members in a collaborative process informed by participatory design. As this chapter outlines, faculty have used constructivist learning principles to create the educational vision that drives the initiative and provides its focus. They have participated in decision-making processes on the management team and advisory committee, and have piloted tools, learning approaches, and technical and educational support structures to inform the institute-wide implementation of this vision. This chapter aims to provide a model to inform the strategic direction of other institutes implementing similar e-learning initiatives and, therefore, concludes with preliminary lessons learned from year one.

INTRODUCTION

In the spring of 2005, the British Columbia Institute of Technology (BCIT) launched its five-year Technology Enabled Knowledge (TEK) Initiative to promote best practices in learning, teaching, and research. This initiative was intended to provide the technical infrastructure, Web-based collaboration tools, educational support structures, and faculty release time to enable its 47,000 learners to engage in exemplary e-learning, as defined by Massy and Zemsky (2004).

TEK has prompted BCIT to rethink how it delivers and supports its core operations at a time when emerging technologies can enable learning approaches that lead to educational excellence. Faculty support and participation will determine the success of this e-learning initiative, so the faculty need to be active members in a collaborative process informed by participatory design. Faculty members have developed the Initiative's educational vision, and they inform the direction of the Initiative through representation on the TEK management team and an established Faculty Advisory committee. In addition, faculty pilot tools, learning approaches, and support systems through funded Grassroots Projects to inform an institute-wide implementation. Through their engagement, faculty members promote a stronger culture of innovative teaching and learning with the use of educational technology.

This chapter describes the central, participatory role faculty members play in first, defining the educational vision that drives the TEK Initiative; second, informing managerial decisions to achieve this vision; and third, piloting tools, learning approaches, and technical and educational support structures to inform an institute-wide implementation of this vision. It concludes with a discussion of preliminary lessons learned from year one.

CONTEXT

British Columbia Institute of Technology

As a polytechnic, BCIT maintains close ties with industry and conducts applied research. Its programs are designed in consultation with leading employers in related industries, and students are expected to apply facts and theories to practice. Research conducted at BCIT is focused on activities with industrial or commercial relevance, where partnerships lead to benefits for the Institute, business and industry, and students (BCIT, 2005).

BCIT consists of five campuses, located around the greater Vancouver area, as well as numerous satellite campuses throughout the province of British Columbia, Canada. BCIT offers more than 200 full-time programs, with an additional 190 credentialed programs offered through part-time studies, distance education, or online learning.

In 2005, over 1,600 courses were delivered in business and media, computing and information technology, engineering, applied and natural sciences, health sciences, and trades, vocational, and apprenticeship (BCIT, 2005). These programs lead to one of several credentials: certificate, advanced certificate or post-diploma, diploma of technology, bachelor of technology, bachelor of business administration, or a bachelor of science. Currently, the Institute is developing several applied master's of technology programs and, in the future, intends to offer applied doctoral degrees.

Full-time faculty members are divided between the technologies and the trades, with each group having different teaching loads. Non-teaching faculty members include librarians, applied researchers, and instructional development consultants. Part-time instructors bring valuable industry experience to BCIT and make up a large percentage of the faculty population.

The TEK Initiative is a joint venture between BCIT's Learning and Teaching Centre and its Department of Computer Resources, each of which support faculty in their use of e-learning.

Learning and Teaching Centre

BCIT's Learning and Teaching Centre (LTC) is dedicated to enhancing the quality of education at BCIT and serves the faculty, staff, and students with a wide range of services and resources, including educational research, curriculum development, instructional design and consultation, distributed learning, media production, document production, and audio-visual services. The Centre