A Model for Effectively Integrating Technology Across the Curriculum: A Three-Step Staff Development Program for Transforming Practice

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ABSTRACT

Technology training for college faculty has become an important part of the mission of colleges and universities today. Funding is allocated toward not only purchasing new technologies but also training faculty to use these technologies with their students in the classroom to better prepare them for the information workplace. Our interest at Robert Morris University was to develop a sequential staff development model that would not only help train faculty, but also help them apply and eventually integrate technology with their students across all of the academic disciplines. This model looks at three key phases of staff development: the training phase, the application or use phase, and the final phase of integration that involves a transformation from the teacher-centered to the learner centered classroom.

Keywords: learning community; staff development; technology integration; training

INTRODUCTION

Today, nearly everyone at the university level, from chief information officers, deans, department heads, technology directors, and faculty, is committed to preparing students who can compete technologically in this fast-paced competitive work environment. Simultaneously, university budgets are bulging with technology requests, state and national standards are requiring higher levels of technology competence, and teaching via technology is being heralded as a valuable instructional tool at all levels of the educational spectrum. Wiske (2004) advocates the use of a pedagogical framework that provides criteria for productively using technologies for deepening understanding, while the International Society for
Technology Standards, through its National Educational Technology Standards (NETS) project (Thomas, 2004) is providing educational leaders with guidance in developing national standards for technology. Yes, effective use of technology is being considered a 21st century skill, just as important as communications, problem solving, and effective decision making.

One approach to meeting this demand is to simply teach for equipment and product usage, thus requiring courses focused on attainment of specific technology core standards of achievement. However, perhaps a more generalist and surely beneficial approach is to effectively integrate technology throughout the instructional process, thereby, exposing students to proper technology use while concurrently improving the learning process. Easier said than done! At Robert Morris University, although some courses have been developed to meet specialized technology course requirements, the primary goal is to effectively integrate technology across the curriculum. In order for successful technology integration to occur, however, there needs to be a strong link between content and delivery and that the use of technology will be most effective when technology use is based on sound instructional theory.

PROBLEM STATEMENT

With the aforementioned to set the stage, data was gathered about the use of technology by faculty and students before formulating a staff development model which faculty can use to effectively integrate technology across the curriculum. Given the importance of technology in teaching and learning, the primary question to be answered was: How can this institution initiate a staff development program that can help faculty move from training, to use or application, and finally to the integration of technology to transform practice?

BACKGROUND

In recognizing the importance of technology, Robert Morris University (RMU) has provided state-of-the-art presentation classrooms. Teachers have access to an LCD projector, a computer, and a VCR for instructional purposes. Many of the classrooms, however, have additional resources including a smart cart, a touch screen, a document camera, cabling for a laptop, and a recording device. The RMU goal is to use technology to enhance the learning environment so that it is participative, customized, and student centered.

An academic technology committee is also in place and consists of representatives from both the administrative and support staff of the university as well as faculty from each of the six schools. A full-time faculty member, who is also on the committee, serves as the director of instructional technology. While the director works more closely with faculty on an individual basis, the committee, on the other hand, reviews concerns of the faculty/staff, initiates new directives, oversees the technology planning process, monitors the budget, and sets short- and long-range technology goals for the university.

THE TECHNOLOGY SURVEY

During the 2001-2002 academic years, RMU designed a survey instrument to measure the degree of technology usage at RMU for a wide array of pedagogical tools. Particularly, the instrument helped to determine the faculty and student usage across all programs at the university. Five
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