An Investigation of Online Course Management Systems in Higher Education: Platform Selection, Faculty Training, and Instructional Quality

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ABSTRACT

Colleges and Universities across the United States have experienced an unprecedented growth in the demand for online course instruction in the recent years. With the large increase in the number of students participating in courses in the online format, there is a lack of research or empirical data that examines both the overall effectiveness and the quality of instruction. This study was designed to examine three major components of online instruction: 1) Course Management Systems (CMS), 2) Instructor training and support and, 3) The evaluation of online courses. Thirty institutions of higher education in the tri-state area of Pennsylvania, Ohio, and West Virginia participated in the research. The study was a Mixed-Methods approach with both quantitative and qualitative data gathered and analyzed. The methodology and results examined the process of selecting an institutional CMS, the training practices for online instructors, and the evaluation of online courses from an administrative and student perspective. [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: Course Evaluation; Course Management Systems (CMS); Faculty Training; Online Learning; Professional Development; Software Selection

INTRODUCTION

Purpose of the Study

This study examines the selection of Course Management Systems (CMS) which assist in the delivery of online learning, the requirement or lack thereof of faculty training prior to teaching an online course, and the evaluation of the quality of online courses through administrator and/or student evaluations.
The Problem

In the United States of America (USA), the group originally deemed “traditional students” no longer represent the most prevalent group enrolled in higher education. In fact, of the nearly 17 million students registered for at least one college class, only 16% of them meet this conventional norm (Stokes, 2006). Along with the rise of non-traditional students, evidence of considerable growth exists in the number of students selecting the online learning format in the USA. For example, between 2005 and 2006, the number of students participating in online courses increased by 10%, resulting in approximately 20% of students claiming enrollment in at least one course delivered totally online in the fall of 2006 (Allen & Seaman, 2007). In accordance with the popularity of online courses, when looking at the future of higher education in America, a large percentage of institutions classify online learning as a portion of their long-term strategy (Allen & Seaman, 2005).

With the increased number of students participating in classes in the online format, a number of concerns and questions arise as to the effectiveness of this type of instruction. Many studies attempt to compare the effectiveness of online versus traditional teaching methods (Shelley, Swartz, & Cole, 2007; Johnson, Aragon, Shaik, & Palma-Rivas, 2000; Fallah & Ubell, 2000; Rivera & Rice, 2002; Hauck, 2006; Russell, 2007). However, a number of other ubiquitous concerns exist within the realm of online learning, including: CMS selection (Halloran, 2002; Jafari, 2000), faculty preparation (Arabasz, Pirani, & Fawcett, 2003), and instructor appraisal (Chapman, 2006).

Although research shows that the majority of institutions in the USA utilize some type of CMS software to support their online learning environment (Maushak, Ou, & Wang, 2004; Arabasz, Pirani, & Fawcett, 2003), little research exists on the criteria or the decision-making processes involved in selecting the CMS. With the magnitude of schools selecting and purchasing CMS for institutional use, the need increases for documenting the most important factors leading to the decision of purchasing a particular system. This documentation not only exhibits the potential to assist software companies by allowing them to place proper emphasis on the drivers that lead schools to purchase and implement a CMS, but also possesses the capacity to benefit individual institutions by providing an opportunity to benchmark the decision-making process among other institutions.

While the factors contributing CMS selection represent one research agenda within online learning, another includes the capacity of faculty to successfully instruct a course in the online format. To instruct effectively, learning the technical aspects of a CMS prior to teaching online represents one important training concept for faculty. However, being comfortable with the technology alone does not ensure successful instruction or course delivery. Clearly, researchers believe teaching a course offered totally online requires training on different methods of instruction than the traditional, on-ground classroom (Diaz & Bontenbal, 2000; Arabasz, Pirani, & Fawcett, 2003; Okojie, Olinzock, & Okojie-Boulder, 2006). In contrast, research also indicates that some instructors hold the perception that online instruction is similar in design and pedagogy, if not the same as traditional teaching (Diaz & Cartnell, 1999; Alexander & Boud, 2001; Arabasz, Pirani, & Fawcett, 2003). This disconnect fuels the dichotomy of faculty training. Instructors believe they are prepared from a pedagogical perspective to instruct online, even though research suggests that instructors require additional training to successfully conceptualize, design, and deliver courses online.

In addition, beyond the basic delivery of content and instructional strategies, the issue of effective and meaningful assessment denotes another major concern and area of scrutiny within the realm of online learning. In a research project involving online program assessment, Chapman (2006) found an inadequate amount of “evaluation research focused on online-only programs” (n.p.). She attributes this deficiency to not only the relative newness of online learn-
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