Chapter 9
How to Design, Develop, and Deliver Successful E-Learning Initiatives

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ABSTRACT

The purposes of this chapter are three-fold: (1) to present findings in investigating the success factors for designing, developing and delivering e-learning initiatives, (2) to examine the applicability of Information Systems theories to study e-learning success, and (3) to demonstrate the usefulness of action research in furthering understanding of e-learning success. Inspired by issues and challenges experienced in developing an online course, a process approach for measuring and assessing e-learning success is advanced. This approach adopts an Information Systems perspective on e-learning success to address the question of how to guide the design, development, and delivery of successful e-learning initiatives. The validity and applicability of the process approach to measuring and assessing e-learning success is demonstrated in empirical studies involving cycles of action research. Merits of this approach are discussed, and its contributions in paving the way for further research opportunities are presented.

INTRODUCTION

In the pursuit of teaching excellence, today's educators are confronted with the challenge of how to successfully tap into the transforming power of the Internet to facilitate or enable learning. As such, a primary objective of this chapter is to present findings from investigating the success factors in designing, developing, and delivering e-learning initiatives. An e-learning success model is introduced to serve not only as a measure of quality assurance in e-learning, but also as a strategy

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for ensuring future success in the development and assessment of e-learning. The e-learning success model draws its theoretical basis from a user-centered Information Systems development paradigm. Consequently, a secondary objective of this chapter is to examine the applicability of Information Systems theories to study e-learning success. The validity of our e-learning success model is tested using an action research methodology. An iterative process of diagnosing, action planning, action taking, evaluating, and learning is repeated in manageable cycles following a continuous improvement principle to identify and address barriers to successful e-learning. As a result, a third objective of this chapter is to demonstrate the usefulness of action research in furthering understanding of e-learning success.

BACKGROUND

According to the U.S. Department of Education (Parsad and Lewis, 2008), e-learning encompasses various distance education courses and programs including online, hybrid/blended online, and other distance learning courses. The inclusion of hybrid/blended online courses as e-learning signifies the realization that learning can be extended beyond traditional in-class instruction with the mediation of learning technologies. Following this definition of e-learning, the U.S. Department of Education found that 96% of public 2-year and 86% of public 4-year institutions offered e-learning during the 2006-2007 academic year, with enrollments of 4,844,000 and 3,502,000 respectively. Of the total 2,720 institutions that offered e-learning, only 2% did not use Internet-based technologies at all for instructional delivery. These statistics reinforce the prevalence of Internet-based e-learning in higher education. As a result, we define e-learning as follows:

E-learning is a formal education process in which the student and instructor are interacting via Internet-based technologies at different locations and times.

Riley et al., in their 2002 report to Congress on distance education programs, summed up the merits of e-learning precisely in this way: "the Internet, with its potential to expand the reach of higher education dramatically, presents very promising prospects to increase access to higher education and to enrich academic activity." (Riley et al., 2002). Indeed, e-learning has often been touted as a means to revolutionize the traditional classroom lecture style of learning where knowledge is transmitted from teachers to students – the objectivist model of learning (Benbunah-Fich, 2002; Schank, 2001). This is to recognize that e-learning can do much more than just content transmission. It supports an alternative model of learning called constructivism where knowledge emerges through active learning – e-learning technologies are used for student-to-student(s) and instructor-to-student(s) interactions, and group work, creating a rich learning environment to engage students in more active learning tasks such as problem solving, concept development, exploration, experimentation, and discovery (Nunes and McPherson, 2003, Hardaway and Will, 1997). Hence, the pedagogical paradigm shift in how students learn requires concerted efforts from both the education and information technology fields to collectively chart a course for effective learning in the Internet Age.

This chapter lays out the first step towards the pursuit of excellence in e-learning, sharing the same long-term goals as envisioned by a 16-member web-based education commission in their 2000 report (Web-based Education Commission, 2000):

1. To center learning around the student instead of the classroom
2. To focus on the strength and needs of individual learners
3. To make lifelong learning a practical reality