Chapter 10

Exploration of Faculty's Perceptions on Technology Change:
Implications for Faculty Preparedness to Teach Online Courses

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ABSTRACT

This chapter conveys the results of an original research study conducted in 2013-2014 to analyze the perceptions of faculty during a learning management system transition (frequent technology change or adoption). The purpose of the study is to determine if faculty perceptions of adopting new technology have an effect on their stress levels; thereby, affecting faculty preparedness. The literature indicates that higher Technological Self-Efficacy (TSE) should result in lower stress levels. Data analysis reveals faculty who indicated having moderate proficiency of TSE (45%) and possessing moderate stress levels (45%); having somewhat proficiency of TSE (27%) and possessing minor stress levels (32%); and having extreme proficiency of TSE (20%), yet possessing serious stress levels (14%). While these findings differ from other current literature findings, the literature does support the notion that higher stress levels have implications on faculty perceptions, behaviors, and preparedness (Iqbal & Kokash, 2011).

INTRODUCTION

With the increase in online course enrollments (Allen & Seaman, 2013), it becomes paramount for institutions to invest in strong distance learning infrastructures to support faculty, staff, and students in the knowledge and skills needed to be efficient and successful online. In order to remain competitive with other institutions and entities offering online education and degrees, it is pivotal that technology remain on the cutting edge in order to support global teaching and learning and faculty preparedness. This requires constant changes in and upgrades to the technologies being used. For example, when contemplating the purchase of a new learning management system, decision-makers must consider the cost, robust features and tools, maximum enrollment capacity, and integration to other technologies. Although changes are necessary, individuals, by nature, resist technology adoptions because change causes stress and other frustrations (Belker, McCormick, & Topchik, 2012). The dialogue in this chapter focuses on how the frequent changes of new technology (phenomenon of change) can have an adverse impact on faculty stress and preparedness. Increases in stress levels impact faculty's perceptions (increasing resistance) of using new technology, causing avoidance of technology use and decreasing faculty preparedness.

Purpose

This chapter presents the results of an original study conducted to capture faculty's overall perceptions of transitioning to a third learning management system (frequent technology change or adoption) within a six year period at a large southeastern research university. The researchers also wanted to determine if the frequency of technology changes had an effect on faculty stress levels and faculty preparedness. Faculty members' levels of stress, technological self-efficacy, awareness of support services and resources, participation in support services and resources, and helpfulness of support services and resources were assessed to determine if faculty resisted the technology change and why. The researchers also sought to discover remedies for relieving faculty stress by evaluating effective coping mechanisms (e.g., communication, training, support, and mentorship) for future technological transitions.

This chapter:

- Explains the theoretical framework used to support the research shared in this chapter.
- Discusses the phenomenon of change.
- Exposes faculty's perceptions of change when transitioning to new technology.
- Describes implications that technology change has on faculty preparedness.
- Suggests solutions and recommendations.
- Trajects future research.

Background

Theoretical Framework and Supporting Model

The theoretical framework used in this study is Kurt Lewin's Change Theory (Kritsonis, 2004-2005; O'Connor, Delaney, & Bronner, 2002; Wirth, 2004). Actions that transpire in the phenomenon of change (stress and resistance) are best captured and supported by Lewin's Change Theory. This theory: a) iden-

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