Chapter 1

Faculty Development in Instructional Technology in the Context of Learning Styles and Institutional Barriers

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ABSTRACT

This chapter describes the within-case analysis of ten faculty members who agreed to share their learning experience and struggles in learning instructional technology. The case focuses on the in-depth description of each participant stressing their unique personal approach and learning styles, describing the main steps experienced and resources utilized by the participants during the learning process. It also highlights one dominant learning characteristic of each participant, which is compared with the participant's result in the Index of Learning Styles Questionnaire of North Carolina State University, with potential implications for academic administrators in promoting the use of instructional technology by faculty members of diverse profiles. The case also discusses the institutional barriers faced by faculty members while learning how to use instructional technology at a public university in the United States. Three institutional barriers were a major concern for the participants: Time, rewards, and cost. One hundred percent of the participants agreed that providing more time—along with financial and academic rewards—is critical to supporting the learning and implementation of instructional technology.

CASE BACKGROUND

Objectives

The purpose of this study was to collect and analyze information about the personal experiences of faculty members in learning to use instructional technology and to analyze how their learning experience was impacted by one professional development intervention. The main objectives of this study were:

1. Analyze the unique journey of individual faculty members in learning instructional technology and how their personal profiles and learning styles impacted their learning approach.

2. Learn the story of faculty members describing their struggles, failures, achievements and successes in learning instructional technology.
3. Discuss the major difficulties and institutional barriers that prevent faculty from learning and using instructional technology.
4. Analyze which aspects of a technology workshop series the participants consider successful in promoting and facilitating learning in instructional technology.
5. Address possible suggestions of faculty for policy-makers on ways to overcome institutional barriers and increase the positive impact of professional development programs in technology.

Problem Statement

Many faculty members participate in professional development programs in instructional technology, but they may feel intimidated by the challenge of mastering the use of technological resources, and there is little information about the many factors influencing the way in which they learn about instructional technology. An in-depth look at how faculty approach this learning situation and the ways in which their learning can be successfully facilitated is an area that needs additional research.

Research Questions

The following research questions guided the study:

1. How do faculty cope with the fear and threat of failure in using instructional technology?
2. How do learning styles and personal experiences influence faculty learning experience?
3. What are the major difficulties and institutional barriers that prevent faculty from learning and using instructional technology on a regular basis?

4. How do professional development interventions impact faculty experiences in learning instructional

Theoretical Framework

Three major areas of literature are particularly useful in informing how the process of learning instructional technology is influenced by faculty personal styles in professional development programs: (1) Faculty attitudes towards change in technology, (2) learning styles models, and (3) Faculty Development Approaches. These areas are briefly addressed below.

Faculty Attitudes towards Change and Technology

Literature on faculty attitudes towards change and technology has direct implications for faculty development, because research suggests that the use of instructional technology by faculty members is intrinsically related to their attitudes and beliefs regarding the role of technology in education (Race, 2001; Mishra, Koehler & Zhao, 2007). The obvious implication for faculty development programs is that developmental interventions need to consider faculty attitudes and beliefs regarding instructional technology.

The adoption of instructional technology always involves a change process, and people will not always accept a change simply because others tell them of its practical advantages over an existing practice. In fact, the adoption process depends on a set of perceptions toward the change by the people involved in the desired change (Lee and Lawson, 2002), and this set of perceptions has been defined as the process by which people attach meaning to their experience (Eggan and Kauchak, 2004). In other words, without seeing real advantages to instructional technology, no one will actually change their teaching style to adopt technology in the classroom.

Like any other change process, the adoption of instructional technology faces different types

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