Chapter 17
The Trend of Commitment:
Pedagogical Quality and Adoption

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ABSTRACT

Through the lens of Technological Pedagogical Content Knowledge (TPCK), this chapter's goal is to understand how commitments affect readiness to innovate and how readiness to innovate affects commitments. Even further, it initiates the conversation on what engages faculty to change and improve their own teaching. Can faculty's commitment to pedagogical quality (CPQ) predict instructional technology adoption? Current Instructional Technology Adoption Models (ITAMs) ignore issues of pedagogy and are mostly developed for an alternative audience and environment, outside the realities and characteristics of higher education. A literature review explores exiting models for factors motivating full-time faculty to incorporate technology. Three audience categories naturally emerge (non-educational, K-12, and higher education), which highlight how each community treats teaching and learning differently. In addition, a study was conducted to analyze relationships between CPQ and adoption. Results indicated CPQ is related to instructional technology adoption through beliefs, academic title, years taught, tenure status, intrinsic and extrinsic motives, and curriculum.

INTRODUCTION

The education system is being challenged to change as innovative technology changes the ways we think about interactions with information and knowledge, and as new generations of students pass through with new expectations and new needs.

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As technological innovation continues, levels of readiness and expertise for faculty, schools, students, parents, and educational technologists become increasingly important; it is clear that "different technologies are deployed at different rates in different ways at different settings" (Molenda and Sullivan, 2002 p 3). What elements would constitute effective professional development programs for faculty? Researchers need to

investigate effective ways to help each population successfully work with new instructional technologies. Effective professional development may require an understanding of the kinds of motivations and psychological resistances that determine how faculty will decide to use new technologies. To what degree, for example, is the adoption of instructional technology related to a faculty's disciplinary affiliation or commitment to high quality instruction? As information technologies become increasingly woven into social expectations, the pressure to adopt them in education can only increase. Informing educational leaders and decision makers on the full range of issues concerning development and deployment of technology and innovation is increasingly a critical priority. It is vital to examine the role of faculty's commitment to pedagogical quality (CPQ) when adopting instructional technology in higher education. CPQ is defined in this work as the faculty's value of teaching and student learning.

Research Rationale

In higher education, there are many reasons why an instructor would or would not adopt technology. These might include intrinsic and extrinsic motivations, "withitness" (Kounin, 1970), obstacles, beliefs, environment, commitments to pedagogical quality, specialization/discipline, and efficiency. This study seeks to tease apart some of these issues in an attempt to bring the field a useful model, showcasing components that predict instructional technology adoption. Employing Mishra and Koehler's (2006) concept of Technological Pedagogical Content Knowledge (TPCK), this chapter first will examine characteristics of faculty in higher education and the nature of faculty's commitment to pedagogy, plus critically reflect on the state of Instructional Technology Adoption Models (ITAMs). TPCK offers a new way of looking at instructional technology and its adoption in higher education. Shulman's (1987) original model distinguished and linked content and pedagogy. As an "emergent form of knowledge that goes beyond content, pedagogy, and technology" (p1028), Technological Pedagogical Content Knowledge highlights what faculty members need to know to teach in an information age (See Figure 1).

The TPCK model shows these 3 components as cohesive. It presumes that Technology, Content, and Pedagogy should not be isolated from each other, or good teaching and successful technology implementation will be compromised. It also suggests the restructuring of professional development experiences to foster their interconnections. Specifically, as there continues to be a push for instructional technology adoption and for faculty to change the way they teach, their lack of knowledge in educational theory and practice becomes clearer. Faculty are primarily hired because they are subject matter experts in their field, but do not necessarily have pedagogical knowledge. When considering the adoption of instructional technology, both content and pedagogy should be considered as a unit. If one component is changed,

Figure 1. Technological pedagogical content knowledge: reconstructed diagram (T= Technology, C = Content, P = Pedagogy) (Mishra and Koehler, 2006)