Chapter 1
The Influence Upon Design of Differing Conceptions of Teaching and Learning with Technology

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ABSTRACT

This chapter considers some of the theoretical foundations of teaching and learning in higher education and how these are reflected in practice. We consider how varying conceptions of teaching and learning with technology have an impact upon how teachers design teaching and learning. This chapter reviews why these variations are important and how they can affect the design of the curriculum and ultimately what and how students learn. We conclude that promoting increased use of technology does little, if anything, to improve student learning. It is only by attending to higher education teachers’ conceptions of teaching and learning with technology and supporting change in this area that significant progress will be achieved. In this chapter we advocate that informed design in the use of technology is underpinned by beliefs about (conceptions of) teaching and learning with technology. To this end the chapter explores some of the theoretical underpinnings of these conceptions and argues that they are fundamental to driving well-informed practice in the use of technology to support student learning.

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INTRODUCTION AND BACKGROUND

There is much hope and promise that accompanies the use of technologies for teaching and learning in higher education, but it is challenging to consider what the best possible uses of technology might be in the design of student learning. Why is it that, in certain cases, technology supported learning is successful in actively engaging students and in improving the learning experience, while in other cases it does not? What is informing the design of successful learning experiences with technologies? We suggest that teachers in higher education need to be informed not only about the technologies available and their potential uses for teaching and learning, but also about other important factors that have considerable influence upon those processes.

University teachers’ views of technology have a fundamental relationship with how they use them and what they consider to be a successful use (Kirkwood & Price, 2005). As higher education institutions strive to embrace societal changes in the use of technology and a range of other influences on how they operate, it is important to recognise what factors affect the use of technology for teaching and learning, but also about other important factors that have considerable influence upon those processes.

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In the 1970s Schramm reviewed several decades of educational media research and concluded that there was little evidence to suggest that any particular medium or technology could, in or of itself, account for enhancing learning outcomes. Rather, he pointed out “a common report among experimenters is that they find more variance within than between media—meaning that learning seems to be affected more by what is delivered than by the delivery system” (1977, p. 273). While Clark and his associates (see Clark, 2001) sought to identify how media contributed to education by reviewing comparative studies (that is, projects in which various media had been used to replicate classroom practices), other researchers focussed on the unique contributions to educational processes and outcomes made possible by different forms of representation through various media technologies (see, for example, Saloman, 1997).

The advent of the Internet and World Wide Web has not only made technologies more ubiquitous in educational contexts, but has been accompanied by the development of an expanding range of media technologies, each with its own particular...
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