Chapter 11
Intentionality in Blended Learning Design:
Applying the Principles of Meaningful Learning, U-Learning, UDL, and CRT

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ABSTRACT

The purpose of this theoretical chapter is to develop a tool that helps educators develop digitally mediated learning (DML) episodes by systematically applying the principles of four paradigms, namely meaningful learning, ubiquitous learning (u-learning), universal design for learning (UDL), and culturally responsive teaching (CRT). The goal is to harness the affordances of each paradigm and combine them into an approach that systematically enhances and enriches DML. This chapter will be relevant for teachers in higher education wishing to complement their face-to-face teaching with carefully designed digitally mediated content capitalizing collaboration, interaction, personal relevance, and projects that can provide creativity-enhancing learning.

INTRODUCTION

This chapter focuses on the systematic design of digitally mediated learning (DML) episodes (Cramp, 2015) and the integration into a culturally responsive online learning environment in higher education. First, the authors will explore and discuss three design-based instructional models: (1) meaningful learning; (2) ubiquitous learning (known as u-learning); and (3) Universal Design for Learning (UDL). The

DOI: 10.4018/978-1-6684-7540-9.ch011

systematic application of the key principles of these three models is expected to promote *active* and *deep* learning. Second, the authors will explore how and to what extent these models can be connected to the key principals of culturally responsive teaching (CRT) in an online learning environment. And third, the authors will present an integrated approach by means of a checklist that assists teachers in higher education in carefully planning their DML content and activities.

BACKGROUND

Most educators who wish to blend their face-to-face teaching with digitally mediated learning (DML) will explore ways to emphasize the concepts of collaboration, personal relevance, reflection, and interaction (student-teacher-content) in an online learning environment. While many educators frequently integrate technology enhanced activities and assessment tasks into their teaching, their design process may not be systematically underpinned by instructional design principles.

The authors of this chapter are in the process of transitioning into blended learning. They wish to maximize the effectiveness of their digitally mediated content, interactions, and activities by taking a design-based approach. One of the authors, whose students are graduate students pursuing a master's degree in Special Education, teaches up to 40% of the course load via synchronous (real-time) web-conferencing (Zoom), while the remaining 60% are offered face-to-face. The other author, whose students are undergraduates pursuing a bachelor's degree in Primary Education, is in the process of developing asynchronous DML episodes that will replace approximately 30% of face-to-face class time. The remaining 70% will continue to be offered in a brick-and-mortar classroom.

The authors were confronted with multiple questions: To which degree would they be able to create DML content and activities in order to adhere to the key principles of multiple design-based models? For example, which principles should they apply in order to create UDL-inspired courses?

How could they avoid to simply transfer the existing curriculum to an online environment? Transferring an existing, pre-determined curriculum would limit the focus on design elements (Johnson et al., 2017) rather than on pedagogical innovations. Would they be able to *recycle* some of the existing content by making only minor modifications? Or would they need to develop all content from scratch? How could they develop course instruction and materials "to benefit people of all learning styles without adaptation or retrofitting?" (Eberle & Childress, 2006, p. 4).

The authors have chosen three design-based instructional models that offer a way to achieve the systematic development of DML. For each model, recent research is reviewed and discussed. Subsequently, the authors will explore how the key principles of the three models can be connected to the key pillars of CRT. They will discuss how this process has informed the development of the DML episodes they designed for their own undergraduate and graduate students and the challenges they have experienced. Although ample research is available for each of these instructional design models, the authors were unable to identify recent research that unifies all models in one single framework.

In the next section, the authors will discuss the key features of meaningful learning, provide examples from K-12 and higher education, and discuss the impact of e-tutor facilitation, interaction, and collaboration modes.