

# Chapter 4

## The Role of Course Management Systems (CMS) in Addressing Universal Design for Learning (UDL) in College Classrooms

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### ABSTRACT

*The purpose of this chapter is to explore the use of a course management system (CMS) platform, Blackboard, which offers a framework for electronic resources accessed via technology (i.e., discussion boards, online tutorials, simulations, etc.), and will speak to how using CMS in this fashion allows teachers in higher education to address universal design for learning (UDL) in a way that is responsive to various learner profiles. This chapter offers an investigation of the implications of using CMS as a flexible method to employ UDL via blended learning and its influence on students in institutions of higher education (IHE). The authors provide strategies that emphasize best practice based on research in conjunction with their combined varied and extensive experience teaching face-to-face, blended, and asynchronous online courses in IHL.*

### INTRODUCTION

The purpose of this chapter is to explore the use of a Course Management System (CMS) platform, such as Blackboard, which offers a framework for electronic resources accessed via technology (i.e. discussion boards, online tutorials, simulations, modules, websites, video clips, etc.). This chapter will also address how using CMS in this fashion allows teachers in higher education to address Universal Design

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## **The Role of Course Management Systems (CMS)**

for Learning (UDL) proposed by Rose and Meyer (2002) in the post-secondary sector in a way that is responsive to various learner profiles. Course Management Systems (CMS), also referred to as Learning Management Systems (LMS), can be conceptualized as an,

*...adaptation of the learning management systems employed in corporate settings, [which] are... probably the most used educational technologies in higher education, behind only the Internet and common office software. (West, Waddoups, & Graham, 2007)*

The features and tools within such CMS frameworks offer *packages of instructionally useful software* (Nilson, 2010). This chapter offers an investigation of the implications of using CMS as a flexible method to employ UDL via blended learning and the influence of such frameworks on students in college settings. The authors provide strategies that emphasize best practice based on research and in conjunction with their combined varied and extensive experience teaching face-to-face, blended, and asynchronous online courses in Institutions of Higher Education (IHE).

## **THE INFLUENCE OF UNIVERSAL DESIGN FOR LEARNING (UDL)**

An essential component to understanding UDL and its application at any level is an emphasis on the universal aspect of the framework. “Universal”, as in for all students, is at the very core of UDL and will be repeated several times throughout this chapter because it is all too easy for instructors to think that adaptations and instructional strategies need only be applied with students with disabilities (SWD). Reference to UDL is included in the Common Core State Standards (CCSS) within the section related to “application to students with disabilities”, although UDL can and should be used with all students because of the universal, ubiquitous nature of the framework (CAST, 2012). Indeed, as practitioners consider a Multi-Tiered System of Support (MTSS; i.e., Response to Intervention, RtI), a universal component is reflected in Tier 1 and is available to all students. If we think about a Common Core related to expectations for students at various grade levels, it follows suit that there needs to be universal supports to enable students to meet, or make progress towards, those expectations. Using UDL, whose roots are grounded in cognitive neuroscience, as such a support structure affords students access to various content, processes, and responding options for motivation and assessment.

By addressing the UDL principles of multiple means of engagement, representation, as well as action and expression (CAST, 2017) through the recognition, strategic, and affective networks (respectively), instruction and learning occurs in a way that celebrates the diversity and preferences that all learners experience. Student engagement with the content is related to the pedagogy used. The motivation of a UDL lesson is fostered throughout based on choices and various methods used rather than solely at the beginning in an anticipatory set of a traditional lesson structure. In fact, this type of engagement is what facilitates students’ internal motivation and work ethic (Rose, Harbour, Johnston, Daley, & Abarbanell, 2006). Additionally, tenets of UDL also assist instructors in creating environments that allow all students to be successful in making progress towards curricula goals; in this way, equity is afforded to learners as part of the teaching and learning process and structure, rather than reactive scaffolding.

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