

## Chapter 13

# Leveraging Learning Theory and Learning Management Systems in Higher Education: The Critical Role of Instructor Facilitation

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### ABSTRACT

*This chapter is intended to inform practitioners and those who design curricula in online and hybrid-delivery programs, particularly at the graduate level. After a review of the different learning theories, the chapter explores how constructivist and cognitivist learning theory can best inform the practice of educators using a learning management system (LMS) to design their learning environments. A thorough review of the literature explores the important role facilitation plays in the LMS learning experience, noting in particular the impact of facilitation on both learning and social engagement. Finally, the chapter reviews the experience of designing and implementing a hybrid-delivery doctoral program at the University of Tennessee at Chattanooga, and concludes with areas for further research.*

### INTRODUCTION

This chapter briefly reviews social cognitive and constructivist learning theory, noting that these theories focus on the active engagement of the learner, and that knowledge is both self- and socially-constructed. This is followed by a discus-

sion of how these learning theories can be best harnessed in a learning environment utilizing a learning management system, and the documented importance of facilitation in the online learning environment. The chapter concludes with a case study of how hybrid-delivery of graduate curricula was accomplished in one university doctoral program, the benefits seen from that implementation in terms of learning outcomes, and areas for further research.

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At the conclusion of this chapter, readers should be familiar with social cognitive and constructivist learning theory, how learning management systems can be harnessed to improve learning outcomes in light of those theories, and the likely benefits of implementing a hybrid-delivery graduate program.

## **LEARNING THEORY, FACILITATION AND A CASE STUDY**

As higher education contends with increasing costs and the perception of decreasing returns in terms of learning perceived as useful in applied settings (Arum & Roksa, 2011; Kamenetz, 2010), educators in post-secondary institutions are moving away from rote learning and behaviorist learning processes and toward the collaborative, knowledge-building approach recommended by constructivist and social-cognitive learning theories. As this occurs, traditional structures in higher education that involved strict ordering of learning materials are giving way to more organically structured learning experiences involving a rich mixture of diverse technologies, experiential learning opportunities, collaborations between learners, and the new role of teacher as facilitator and guide as opposed to information-distributor.

### **Learning Theories: A Brief Overview**

Before considering the specific constructivist and social cognitive learning theories relevant to the use of the LMS in higher education, it is useful first to briefly review three of the major families of learning theory, which are generally recognized as behaviorism, cognitivism, and constructivism.

#### **Behaviorism**

The psychologist John Watson coined the term “behaviorism.” Critical of psychology’s previous focus on unmeasurable internal states, Watson

insisted that science focus on measureable behaviors (Good & Brophey, 1990). Behaviorism was primarily developed by B. F. Skinner, but also encompasses the works of others including Edward Thorndike, Edwin R. Guthrie, and Clark Hull (Schunk, 2008). The behaviorist approach is characterized by three basic assumptions about learning. These are that the evidence of learning is a change in behavior; that the learners’ environment shapes their behavior; and that the proximity of events (how close together two events are when forming a bond between those events) and reinforcement (any means of increasing the likelihood that an event will be repeated) are crucial to explaining learning (Skinner, 1953; Watson, 1924).

For behaviorism, learning is the acquisition of new behavior through conditioning. The two types of conditioning are classical conditioning, where behavior becomes reflexive to stimuli as in the case of Pavlov’s Dogs, and B. F. Skinner’s (1953) operant conditioning, where behavior is reinforced positively (through reward) or negatively (through punishment). It is important to remember that behaviorists are interested in measurable changes in behavior as evidence of learning. Since behaviorists view the learning process as a change in behavior, in this view, teachers can design the learning environment to elicit specific desired responses.

#### **Cognitivism**

Cognitive learning theory assumes that “learners are active seekers and processors of information” (Schunk, 2008, p. 132), and those learners are agents engaging in self-development, self-regulation, and self-reflection (Bandura, 2001, 2006b). In cognitivism, practice is essential. While the behaviorists largely posited that practice creates a connection between stimuli and response for learning, cognitivists instead stress the building of associations between concepts, and the importance of memory (Schunk, 2008). Because of this im-

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