

## Chapter 45

# Constructivism in 21st Century Online Learning

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### ABSTRACT

*Augmenting communication in and among those in the academic, business, and military communities, the exponential advancement of science and technology has availed vast amounts of information to virtually millions of people around the globe. In conjunction with this knowledge explosion has been a growing concern for the democratization of the learning process, with constructivism driving much of the educational agenda, most particularly in areas such as online distance education. This chapter examines the resurgence of the constructivist approach to teaching and learning, its convergence with rapidly changing technological advances, and its relationship to future trends in online pedagogy and andragogy.*

### INTRODUCTION

Augmenting communication in and among those in the academic, business, and military communities, the exponential advancement of science and technology has availed vast amounts of information to virtually millions of people around the globe. In conjunction with this knowledge explosion has been a growing concern for the democratization of the learning process, with constructivism driving much of the educational agenda, most particularly in areas such as online distance education. This chapter examines the resurgence of the constructivist approach to teaching and learning, its convergence with rapidly changing technological advances, and its relationship to future trends in online pedagogy and andragogy.

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## BACKGROUND

While the constructivist method has been highly emphasized in the recent literature for online and distance education (Barak, 2017; Brown, L. 2014; Bryant & Bates, 2015; Holzweiss, Joyner, Fuller, Henderson, & Young, 2014; Huang & Liaw, 2018; Mbatia & Minnaar, 2015; Miller-First & Ballard, 2017; Perrow, 2017; Ştefan, 2017; Symeonides & Childs, 2015; Thorne, 2013), it is not a new approach to learning. Presenting an early example, Socrates facilitated discourse with students asking directed questions to assist them in realizing the weaknesses in their logic and critical thinking. This enabled learners to share in the responsibility of their learning through active participation, while negotiating meaning in the creation of shared understanding. In contrast, medieval professors in later Western culture most often served as primary repositories of information along with the scrolls and velum texts found in the limited number of physical libraries available to educators. With the lecture serving as the quickest and easiest way to disseminate information to both small and large groups of individuals, it was both an efficient and effective delivery method in the shaping and forming of student knowledge, quickly becoming the standard for traditional education.

## FOCUS OF THE ARTICLE

### Resurgence of Constructivism

While the lecture method was the norm of information delivery for centuries in Western culture, the knowledge explosion arising from the latter part of the 20th century demanded more active learner participation. In light of this constant and rapid flux of information and knowledge, students became life-long learners compelled to use metacognitive skills to constantly evaluate and assimilate new material into their respective disciplines. As this implies, knowledge was no longer viewed as a fixed object; rather, learners constructed it as they experienced and co-created an understanding of various phenomena by collaborating and working with peers and professors as well as with the information. Now, rather than strictly acquiring information, Duffy and Cunningham (1996) explicated that “learning is an active process of constructing ... knowledge and ... instruction is a process of supporting that construction” (p. 171).

Based on the work of Kidd (1973), Long (1983), Moore (1989), and Palmer (1993), Grooms’ (2000) *Learner Interaction Model* (see Figure 1) illustrates that in the constructivist culture, the learner perpetually interacts with these three components of learning--content, facilitator or professor, and peers--each mutually and non-discriminately influencing the other.

Critical in this process is recognizing the shifting role of the professor who becomes the *guide on the side* or content facilitator and is no longer the proverbial *sage on the stage* or content provider. The student’s role also has changed from being a passive receiver of information to an active participant in the knowledge-making process, aligning with Bandura’s early work (1977, 1994) on the concept of the autonomous learner, an important dimension of the constructivist model. Based upon the earlier work of Reid-Martinez, Grooms, and Bocarnea (2009) and Reid-Martinez and Grooms (2015; 2018), Table 1 delineates these two approaches to learning.

Of special interest in the above listing is the role of community. The constructivist approach recognizes that students do not learn strictly within the limited confines of a local educational institution, but rather within the broader international and global context of their personal lives extended through social

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