Constructivism in Online Distance Education

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INTRODUCTION

The past two decades have ushered in a very pronounced gravitation toward a constructivist approach to teaching and learning in all realms of society and most particularly in the online distance education environment. 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. This article examines the resurgence of this approach to teaching and learning, its convergence with rapidly changing technological advances, and how it forecasts future trends in online pedagogy.

BACKGROUND

While the constructivist method has been highly emphasized in the more recent literature (Jonassen, Davidson, Collins, Campbell, & Haag, 1995; Rovai, 2004; Tenenbaum, Naidu, Jegede, & Austin, 2001), 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 them to share in the responsibility of their learning through active participation while negotiating meaning in the creation of shared understanding. In contrast, over time, most professors in Western culture 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. This role included the important function of disseminating information, as well as assisting students in

Figure 1. © 2000, Grooms, L.D.

Learner Interaction Model
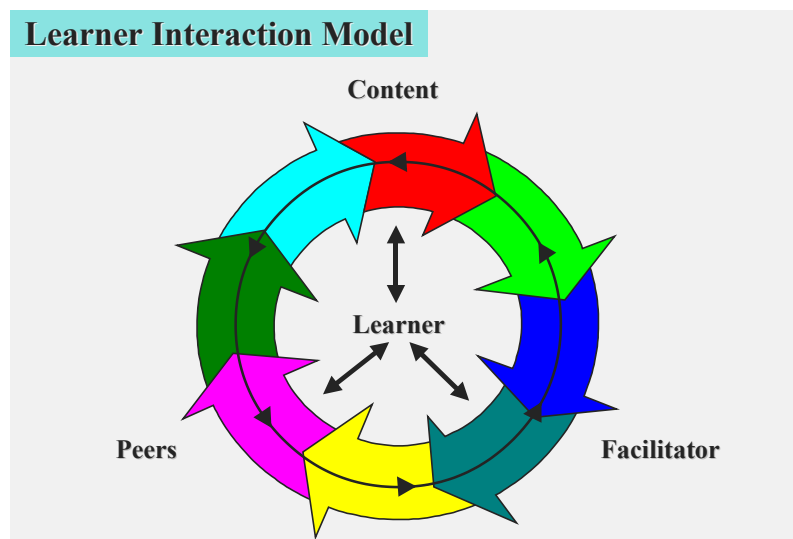
shaping and forming that knowledge. The lecture served as the quickest and easiest way to reach both small and large groups of individuals.

While the lecture method was the norm of information delivery for centuries in Western culture, the knowledge explosion of the 20th century demanded more active learner participation. In light of this constant and rapid flux of information and knowledge, students became lifelong 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. 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.

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). 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 (Weller, 1988), aligning with Bandura's (1977, 1994) concept of the autonomous learner,

an important dimension of the constructivist model. Table 1 delineates these two approaches to learning.

Of special interest in Table 1 is the role of community. The constructivist approach recognizes that students do not learn strictly within the limited confines of an educational institution, but rather within the broader context of their personal lives. Consequently, the boundaries between the educational institution and the larger community become blurred, creating a unique set of challenges.

As people work collaboratively in the learning activities, they bring their own worldviews and experiences to each situation, often creating a plethora of perspectives. During this collaborative learning process, they must negotiate and generate meaning and solutions to problems through shared understanding. Thus, education moves from a single, solitary pursuit of knowledge to a collaborative learning community that shapes and informs responses to the environment. As noted by Fuller and Söderlund (2002), this challenges the common metaphor of the university as a self-contained village.

RAPIDLY CHANGING DISTANCE LEARNING TECHNOLOGIES

Over the years, educators have experimented with and successfully employed multiple media for distance learning. As early as the 18th century, print material was used and even today still serves an important role in distance education.

Table 1

Approaches to Learning		
	Traditional	**Constructivist**
Professor	Sage on the Stage	Guide on the Side
	Content Provider	Content Facilitator
Learner	Passive Recipient	Active Participant
Knowledge	Fixed Object	Fluid
Organization of Learning	Ordered & Structured	Open & Often Chaotic
Communication	Uni-directional	Multi-directional
Primary Resource	Text & Professor	Multiple Sources
Method	Lecture	Active Process
Media	Print	Blended
Format	Individualized	Collaborative
Activities	Goal-oriented	Problem-centered
Focus of Learning	Knowledge & Understanding	Application, Analysis, Synthesis, & Evaluation
Assessment	Recall	Alternative Assessment
Community	Educational Institution	Integrated with Life

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