

Constructivism as the Driver of 21st Century Online Distance Education

D

Kathaleen Reid-Martinez
Oral Roberts University, USA

Linda D. Grooms
Regent University, USA

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 for online distance education (Cheney & Sanders, 2011; Gülseçen, 2012; Jonassen, Davidson, Collins, Campbell, & Haag, 1995; Lê & Lê, 2012; McHaney, 2012; Rovai, 2004; Shapiro, 2008; Shi, Fan, & Yue, 2012; Tenenbaum, Naidu, Jegede, & Austin, 2001; Yang, Nguyen, & Jang, 2012), 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, professors in 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 reach both small and large groups of individuals, dissemination of information functioned as the primary delivery method that assisted in the shaping and formation of student knowledge quickly becoming the standard for traditional education.

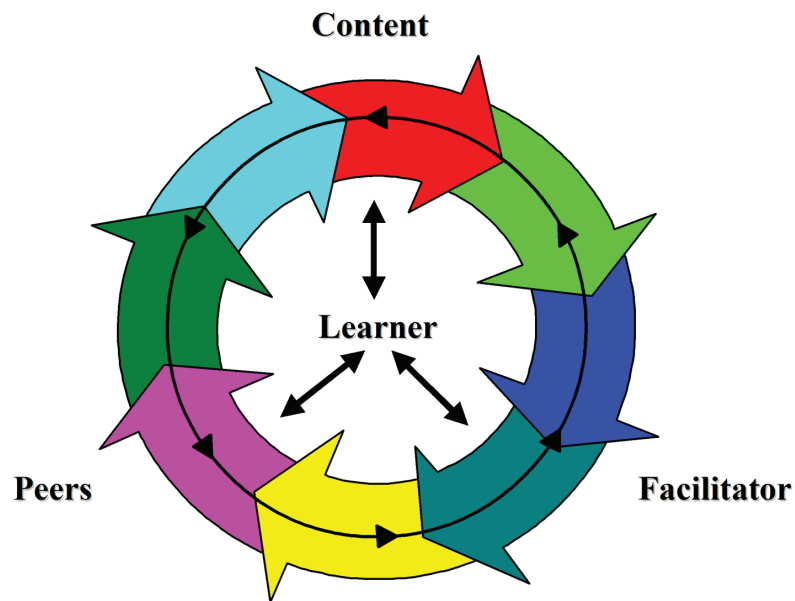
MAIN FOCUS OF THE ARTICLE

Resurgence of Constructivism

While the lecture method was the norm of information delivery for centuries in Western culture, the knowledge explosion 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, each mutually and non-discriminately influencing the other.

DOI: 10.4018/978-1-4666-5888-2.ch216

Figure 1. Learner Interaction Model ©2000, Grooms, L. D.



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 (Reid-Martinez, Grooms, & Bocarnea, 2009) delineates these two approaches to learning.

Of special interest in the traditional constructivist approach to learning 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 extended through social media and multiple technologies. Consequently, the boundaries between the educational institution and the larger community become blurred creating its own unique set of challenges.

As people work collaboratively in the learning activities and new technologies, they bring multiple

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, and today, as much as in the past, they continue to stress that pedagogy must drive technology (Rourke & Coleman, 2011). As early as the 18th century, print material was used and even today still serves an important role in distance education even as it gives way to more reliance on web-based resources and technology for collaborative development of knowledge that incorporates the diversity of learners and their contexts. After the 1930s, other media became significant with audio (i.e., radio and audiotapes) and

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/constructivism-as-the-driver-of-21st-century-online-distance-education/112634

Related Content

Nth Order Binary Encoding with Split-Protocol

Bharat S. Rawal, Songjie Liang, Shiva Gautam, Harsha Kumara Kalutarage and P Vijayakumar (2018). *International Journal of Rough Sets and Data Analysis* (pp. 95-118).

www.irma-international.org/article/nth-order-binary-encoding-with-split-protocol/197382

Issues and Challenges in Enterprise Social Media

Sarabjot Kaur and Subhas Chandra Misra (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 7036-7043).

www.irma-international.org/chapter/issues-and-challenges-in-enterprise-social-media/184400

Classification of Network Optimization Software Packages

Angelo Sifaleras (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 7054-7062).

www.irma-international.org/chapter/classification-of-network-optimization-software-packages/112404

Consistency Is Not Enough in Byzantine Fault Tolerance

Wenbing Zhao (2018). *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 1238-1247).

www.irma-international.org/chapter/consistency-is-not-enough-in-byzantine-fault-tolerance/183837

An Evolutionary Mobility Aware Multi-Objective Hybrid Routing Algorithm for Heterogeneous WSNs

Nandkumar Prabhakar Kulkarni, Neeli Rashmi Prasad and Ramjee Prasad (2017). *International Journal of Rough Sets and Data Analysis* (pp. 17-32).

www.irma-international.org/article/an-evolutionary-mobility-aware-multi-objective-hybrid-routing-algorithm-for-heterogeneous-wsns/182289