

Chapter 15

Meaningful Learning from Sustained Online Communication: A Reflection with a Group of Adults

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ABSTRACT

This case study discusses a model of evaluating a group of adult students learning resulting from using an online social constructivist tool. The study is based on using a discussion board for sharing and co-constructing knowledge. Learning through social interactions and critical thinking is increasingly considered an essential teaching approach and especially for adult students. This approach promotes active learning and leads to better understanding of the subject matter. Online interaction evidently promotes critical thinking, problem solving, and knowledge construction. The literature provides a large set of approaches for evaluating discussion boards. However, their uses are not easily adoptable by faculty who are primarily interested in measuring the quality of online discussion. The authors contend that faculty should not adhere to a single measure but rather to be experiential and to develop their own models of evaluation of the students' online learning experience. This case study discusses our own model for understanding the students' learning experience and the authors' approach to assess an individual's level of engagement in critical thinking. The study contributes to the body of knowledge on adopting e-learning technologies at institutions in the Arab World for teaching adult students.

INTRODUCTION

Wurm (2005) argues that bulk of adult education research has focused on self-directed learning, critical reflection, experiential learning, distance learning, and learning how to learn. Knowles who

developed the andragogy theory argued that adults learn differently from children because the learning process of adults is different as adults are more self-directed, autonomous i.e. more responsible for their learning and take decisions more than children (Simith, 2002). This could be linked t

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that fact that adults accumulate experience over the years and they become conscious and aware of what is relevant and useful to them. In this theory, teachers take on a facilitating role and intervene only when necessary. Based on the concept behind andragogy, adults need opportunities to construct their relevant knowledge and to collaborate with others to simulate life experiences.

To motivate adult learners they need to be engaged in activities to make them think, reflect and express their experiences and views. Andragogy may be enforced using social constructivism activities such as using online discussion boards. Discussion boards have the potential to promote deep thinking and can also lead into random chat leading to surface learning and adding little to their learning experience (Knowlton, 2001).

Social constructivism is about knowledge construction that is co-constructed through social interaction (Simpson, 2002). The basis of its philosophy is that students' learning is strengthened by applying prior knowledge and principles to a new environment resulting in construction of new knowledge (Beaumie, 2001).

Nevertheless, engaging students through online discussion boards does not automatically guarantee meaningful learning, warranting the need for suitable assessment tools to measure students learning and performance. The question is "how to evaluate students learning through the examination of the knowledge constructed by them to ensure that learning is occurring?"

EVALUATING LEARNING ONLINE DISCUSSION BOARDS

The extant literature on analyzing online learning using discussion boards is quite extensive. Nevertheless, most of the assessment approaches discussed in the literature rely on examining the students' postings seeking indicators related to

various knowledge elements. These indicators are used by educators to evaluate learning that occurred during knowledge construction and sharing using online discussions. The analyzing approach can be either approached quantitatively or qualitatively. Probably the most cited approach is the 'community of inquiry model' developed by Garrison et. al. (2000), who proposed three fundamental categories related to; cognitive presence, social presence and teaching presence. The cognitive presence category is the relevant category in this study, which includes triggering events, exploration, integration and solution. The dimension of the cognitive presence encapsulates a range of cognitive processes encountered by users when engaged in online discussions forums. The Interaction Analysis Model (Gunawardena, Lowe, & Andeson, 1997) another common model of five phases that is used as an analysis protocol to ascertain and measure the meaningful learning occurring online. Table (1) draws a comparison between the most common approaches that are used to evaluate online learning using discussions boards and specifically the cognitive processes that may occur in that environment. Bloom's Taxonomy of Education Objectives (1956) has also been used by educators and was found useful to evaluate students' contribution in online discussions (Meyer, 2004). From the comparison of the common approaches, it is clear that the models have much in common as well as differences.

Unlike other categories of learning, adult learning requires a type of engagement that can facilitate deep thinking. Table (2) shown below, distinguishes between surface and in-depth cognitive processes (Henri, 1992), considering that faculty are usually interested in instilling deep learning processes to their students.

The use of these models for learning assessment and analysis relies on the coder reading of each posting and mapping the statement to the most applicable category although the statement

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