Bridges of Trust: Towards a Constructive Model for Assessing Web-Based and Electronic Learning

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ABSTRACT

The current research aim was to develop a constructive model for assessing web-based and electronic learning as an attempt to build bridges of trust in web-based and e-learning outcomes. The proposed model was developed in the light of the learning assumptions of the constructive theory and the cognitive theory. The targeted model – the Bridges of Trust Model – includes four levels of assessment: assessment of awareness, assessment of initiative, assessment of depth of meaning, and assessment of meaning construction. Within these levels, the researcher presented six processes reflecting the types of constructive assessment of web-based and e-learning. These types are: 1) assessment of manipulations, 2) assessment of outcomes, 3) assessment of cooperation, 4) assessment of transformation, 5) assessment of context, and 6) assessment of reflection. The model was piloted on a sample of students in the distance teaching and training program in the Arabian Gulf University. The pilot study proved that the model is valid and generalizable. In addition, this paper will be of benefit to people looking for pedagogical applications of web-based and electronic learning environments for developing multiple ways to express what online learners should know and be able to do.

Keywords: Assessment Models, Cognitive Learning, Constructive Learning, E-Learning, Web-Based Learning

INTRODUCTION

Where is learning in distant learning? How can we guarantee that learning takes place in web-based and e-learning environments? How can technology enhance meaningful learning? These three questions are frequently asked and discussed in conferences and symposia. These questions are well-grounded as technology from its evolution to the present time has been used to enhance the educational system and teachers’ aims rather than learners’ aims. Thus, the answer to these queries represents an issue of concern to those interested in learning that is based on information and communication technology all over the world. It is a mistake to think of the answer to these queries in terms of the economic outcome (profits and costs) alone. Huge profits can be gained from investment in providing online learning. Yet, the outcomes
can be disappointing in the sense that resultant learning can be meaningless to learners and employers.

Due to the rapid and increased demand on information and communication technology (ICT) and e-learning applications and e-content-driven design, the issue of evaluating and assessing web-based learning became an important topic to discuss in all e-learning national and international conferences (Pahl, 2008). This issue is pushing the institutions that are delivering online, open and distance learning to find significant solutions to assess and evaluate learning outcomes among online and web-based learners.

Web-based generation ‘learners are different from the past generations’ learners. Web-based generations have collective mind that is diverse, distinct, and dynamic. They need a diverse, distinct, and dynamic learning and assessment ecology. Web-based generations are born and educated in more completely different educational context than their past generation had (Abdelaziz, 2013 C). This environment is highly affected by Web 2.0 applications and social media networks regardless of past or adult generation educational believes and practices. In such learning ecology, learning is occurring much faster than time. Web-based generations are divers in their learning styles and preferences. They need teaching styles and curriculum frameworks and assessment activities that fit with their collective minds and daily habits (Abdelaziz, 2013 A).

In the meantime, web-based learning ecology is dynamic, that is it helps in moving creative ideas and solutions between learners regardless of their nationality or even the time zone they belong to. Dynamic learning is one theme that governs future learners’ interactions. It helps in building mind nods that are adaptive and concurrent. It gives learner what he/she needs of elasticity to direct generating ideas and solutions and share them with others for more meaningful learning. Therefore, future learning and assessment models should be diverse, distinct, and dynamic to overcome future learners’ mental and social needs. Diverse, distinct, and dynamic learning and assessment ecology help in promote deep rather than surface learning. Future learning and assessment models should also support the shift from content engagement (knowledge transfer) to cognitive engagement (knowledge creation and distribution) (Abdelaziz, 2013 B).

The 21st century learning paradigm needs to rethink how we design new assessment models and strategies that can respond to the learning requirements and reflect the characteristics of knowledge and learning which are basically personal, social, distributed, dynamic, and versatile in nature (Chatti, Jarke, & Specht, 2010).

This shift has made most, if not all, of the teaching and learning practices transform from a knowledge-push to a knowledge-pull model. According to Chatti et al. (2010), in the knowledge-push model, the information flow is guided and directed by the instructor, but in the knowledge-pull model, the learner is the investigator and knowledge builder and maker. This shift is also pushing us to rethink and develop web-based learning assessment model that are dynamic, adaptive and constructive to transfer the learning process from being a knowledge-push (knowledge expression) matter to a knowledge pull (knowledge generation and creation) process.

Meaningful learning that can take place in web-based and e-learning environments is not reflected only in the preparedness of learning environments and state-of-the-art teaching strategies. It also reflects the extent of trust in the learning outcomes. Learners need to get convinced that learning in web-based and e-learning settings will be meaningful, and that they will acquire self-regulating learning skills. For meaningful learning to take place in web-based and e-learning environments, there should be, as conceived by the researcher, well-developed constructive and comprehensive assessment and evaluation models to guarantee that meaningful learning is actually taking place. Such models are expected to build bridges of trust in the outcomes of virtual and e-learning.
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