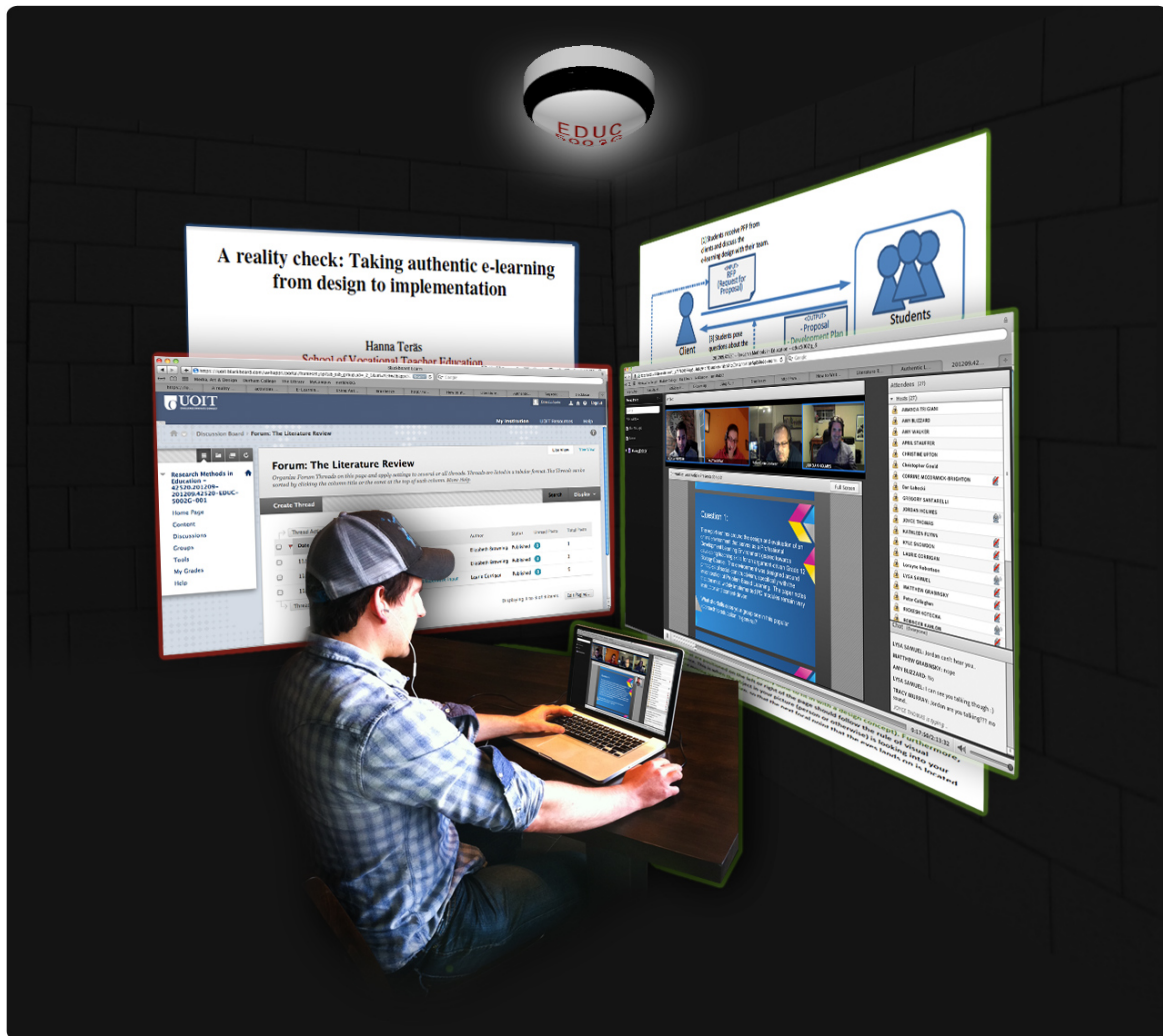


Authentic E-Learning in Higher Education



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INTRODUCTION

“Web 2.0” online learning environments – such as wikis, discussion boards and blogs -- can be truly transformative with their potential to promote collaboration, reflection and authentic assessment. Although technology has all of this potential it isn’t necessarily seen in classrooms.

The purpose of this review is to examine the literature for the stated benefits of authentic collaboration, reflection, and assessment made possible through “web 2.0” technologies, as identified by (Herrington, 2006).

STUDIES

Overview

In each of the studies, the researchers’ either observed or gathered data on their participants’ use of – and level of engagement with – e-learning environments (LMSs, wikis, discussion boards, blogs, etc.) or the conceptualization and development of authentic e-learning environments within a post-secondary setting.

For four of these projects, the authors relied heavily on the principles of authentic e-learning (Herrington, 2006). According to Herrington (2006), the nine “principles of authentic e-learning” state that online environments should:

1. Assist the learner in functioning in an authentic environment rather than to simplify it (**authentic context**)
2. Have open-ended and complex tasks with real-world relevance (**authentic tasks**)
3. Involve access to other learners with various levels of expertise, as well as the opportunity for sharing narratives about professional practice (**access to expert performances and modeling of processes**)
4. Provide opportunity for students to explore issues from different points of view (**multiple roles and perspectives**)
5. Have tasks completed in groups or pairs, with assessment providing an incentive for collaboration rather than simple cooperation (**collaborative construction of knowledge**)

6. Give ample opportunities for reflection in and on action (Schön, 1983, as cited in Herrington, 2006) (**reflection**)
7. Require students to speak and write about their growing understanding, and to defend arguments and articulate ideas (**articulation**)
8. Require teachers to sometimes adopt a new and quite different role in the teaching and learning environment, and to scaffold learning (**scaffolding and coaching**)
9. Have assessments that are integrated with tasks, rather than comprising of separate standardized tests (**authentic assessment**), Herrington (2006).

(Tanti, M. & Matekja, D., 2008) do not directly reference the “principles of authentic e-learning”, but they do critically examine the, “integrative and transformative models from a higher education perspective” (Tanti & Matekja, 2008, p. 1). This is relevant because “transformative models” subscribe to many of the same principles outlined in the bulleted list above, while “integrative models” do not.

Sample Size

The studies utilized sample sizes ranging from 36-237. All five of the study samples were comprised of male and female teachers, facilitators or students in post-secondary institutions.

Data Collection

Three of the studies utilized qualitative and quantitative methods of data collection (IE: observation and feedback, interviews, questionnaires and surveys). The remaining studies used qualitative observation in a case study setting, and survey data, respectively.

Data Analysis

Four of the studies analyzed the data with the help of the authentic e-learning framework (Herrington, 2010).

(Mathiopoulos & Paraskeva, 2009) used the Pearson R correlation, “to examine the degree of linear relationship between perceptions of authentic assessment and study process, reflective thinking and motivation” (p. 2193).

FINDINGS

Collaboration

In the lone study that focused on training workers in the oil and gas industry via an online flash-based course, the main issue with collaboration was the quick turn-around time. (Mathiopoulos & Paraskeva, 2009) felt the quick course completion made it difficult to form learning communities among participants.

The other studies found different issues that obstructed collaboration and limited the sharing and creation of knowledge. The issues ranging from missed appointments and scheduling conflicts to hardware/software difficulties (Teräs et al., 2012).

Reflection

Every study discussed either the importance that reflection played in the conceptualization and development of authentic e-learning environments and tasks, or the importance of reflection for students working within those environments.

(Tanti & Matekja, 2008) found that student e-portfolios fostered and promoted reflection, while (Mathiopoulos & Paraskeva, 2009) wrote that authentic assessment could also promote reflection.

Authentic Assessment

A common argument among student participants in a number of the studies was that, “learning outcomes and assessment criteria remained unclear” (Teräs et al., 2012, p. 2226). Assessing collaborative efforts proved confusing – even frustrating – for many students when team members didn’t perform up to their expectations. There was a consensus among researchers that “assessing the process” versus the more traditional approach of “assessing the outcome” proved confusing and/or frustrating because it was unfamiliar (Teräs et al., 2012).

(Mathiopoulos & Paraskeva, 2009) indicate that authentic assessment requires well-organized tasks, criteria and rubrics to become a more efficient alternative to traditional assessment and learning models.

QUESTIONS FOR FURTHER RESEARCH

This literature review focused on the topics of “collaboration”, “reflection” and “assessment”, and their roles in creating and/or working in an authentic e-learning environment. There was evidence of increased engagement and learning when teachers/students effectively leveraged the potential of modern day e-learning technology (Tanti & Matekja, 2008). A set of design principles that can aid in the conceptualization and production of authentic e-learning environments was provided (Herrington, 2010).

However, there seems to be a lack of research that measures success among educators who are specialists (or on their way to becoming specialists) in each of the aforementioned areas. Through the completion of my nine MEd courses and my capstone e-portfolio, I hope to acquire the skills to not only effectively utilize the depth and breadth of digital technology presently available, but to also conceptualize and produce authentic e-learning tasks and assessments of my own.

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