

Instructional engineering for acceptance of Web 2.0 technologies to promote critical thinking

Abstract:

One of the major aims of science and technology instruction is to promote learners conceptual understanding and thinking skills. The main goal of this paper is to explain an e-Learning framework on the use of web 2.0 technologies to promote critical thinking skills with Decomposed Theory of Planned Behavior (DTPB) and Practical Inquiry Model (PIM) in educational environment. Technology application such as web 2.0 tools in the teaching and learning environment has increased over the past years, but majority of them are limited to content delivery. Using the Decomposed Theory of Planned Behavior (DTPB) allows us to uncover specific factors that influence the acceptance or use of new technologies to supplement in-class learning. In addition, the rapid growth of web 2.0 tools has made an increasing amount of information available. Students access different pieces of knowledge. Therefore, they must be aware not only how access information but also more significantly how to manage information, analyze, integrate, and evaluate into usable knowledge. Practical Inquiry Model (PIM) is the instructional process to guide online learners to higher levels of Bloom's Taxonomy to have them thinking and writing at the levels of analysis, synthesis, and evaluation.