Oxford Journals Mathematics & Physical Sciences & Social Sciences Interacting with Computers Advance Access 10.1093/iwc/iwu010

Interacting with Computers
iwc.oxfordjournals.org

Interact. Comput. (2014) doi: 10.1093/iwc/iwu010
First published online: April 1, 2014

A Virtual Experiential Learning and Students' Ill-Structured Problem-Solving Ability

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Received August 21, 2013.
Revision received February 10, 2014.
Accepted February 19, 2014.

Abstract

In order to provide students with an experiential learning experience and understand the effect of a three-dimensional (3D) virtual learning environment in students' ill-structured problem-solving ability, the study designed a 3D virtual company (3DVC) for the participants to be a general manager to solve several complex problems for different departments. The study selected one class of business students to participate in the experiment. The entire procedure comprised pretest, 3DVC training and posttest. The results were analyzed through a paired sample *t*-test to understand if there is any significant difference between pretest and 3DVC, and pretest and posttest. The results showed that the participants made a significant improvement in ill-structured problem-solving ability after the 3DVC training. The results provide important references for educators that a 3D situational learning environment is beneficial in improving students' ill-structured problem-solving ability.

Key words computer-assisted instruction E-learning scenario-based design virtual reality