Students’ Perspective on Safety Education using Second Life as a Tool for Effective Learning

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Students’ Perspective on Safety Education using Second Life as a Tool for Effective Learning

Abstract
Educators are searching for cutting-edge ideas to deliver effective instructional methods to students and employers on different aspects of training. The population of students in colleges and universities are different in terms of dependency on technology. Most students are visual learners and are dependent on the use of technology in their everyday lives to satisfy social needs. Educators are seeking methods to increase student learning and comprehension of classroom theory by integrating the students’ need of technology. Teaching industrial safety can often leave the instructor with a level of uncertainty as to whether the students have grasped concepts taught in the classroom. As educators begin to embrace new innovations in teaching and learning, researchers are examining Flow in virtual environments such as Second Life. The researchers see potential in developing collaborative activities which intrigue and lure students into an environment which induces Flow, thereby allowing students to “think outside the box” and analyze simulated situations which are representative of real-world safety issues.

Disciplines
Agriculture | Bioresource and Agricultural Engineering | Engineering Education | Higher Education | Occupational Health and Industrial Hygiene | Science and Mathematics Education

Comments
The paper, "Students' Perspective on Safety Education using Second Life as a Tool for Effective Learning" (Danda B. Rawat, Jeff Kilgore and Vigs Chandra), as published in the Proceedings of the ATMAE 2010 Conference (2010 ATMAE Annual Conference, Panama City Beach, FL, October 27–30, 2010) is a copyrighted publication of ATMAE, the Association of Technology, Management, and Applied Engineering, 1390 Eisenhower Place, Ann Arbor, MI 48108 This paper has been republished with the authorization of ATMAE, and may be accessed directly from the ATMAE website at http://atmae.org/index.php/conference-20#pastconfpaper.

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Students’ Perspective on Safety Education using Second Life as a Tool for Effective Learning

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Need: Educators are searching for cutting-edge ideas to deliver effective instructional methods to students and employers on different aspects of training. The population of students in colleges and universities are different in terms of dependency on technology. Most students are visual learners and are dependent on the use of technology in their everyday lives to satisfy social needs. Educators are seeking methods to increase student learning and comprehension of classroom theory by integrating the students’ need of technology. Teaching industrial safety can often leave the instructor with a level of uncertainty as to whether the students have grasped concepts taught in the classroom. As educators begin to embrace new innovations in teaching and learning, researchers are examining Flow in virtual environments such as Second Life. The researchers see potential in developing collaborative activities which intrigue and lure students into an environment which induces Flow, thereby allowing students to “think outside the box” and analyze simulated situations which are representative of real-world safety issues.

Overview: A pilot study will be conducted in the spring semester of 2011 to determine students’ perspective on an emerging social-visual technology called Second Life. This technology will be used to teach a safety course using Second Life. The site for the pilot study will be conducted in the Department of Agricultural and Biosystems Engineering at Iowa State University. Results will be disclosed during the ATMAE conference presentation.

Major Points:
• Explain the Flow Theory and how it is used in learning
• Student inspection process of the plant facility
• Identify the features and functionality of the ‘classroom island’ using a safety course
• Reveal findings
• How can this study impact safety education and training

Summary: This instructional method of learning is a cutting-edge approach for possible lateral diffusion of this technology for higher education and for industry. Second Life is a feasible and practical approach to deliver distant learning education for safety training well into the 21st century.