

Virtual Game Simulation: The Big Challenge

Challenge Problem and Resources



Developed by:

The teachers, students, and mentors in the
Gaming Research Integration for Learning Laboratory™ (GRILL™)
Summer 2014

1. CHALLENGE PROBLEM: THE BIG CHALLENGE

Modeling and Simulation provides a basis for the virtual environment of a training or simulation. A game based simulation provides a creative learning environment for users, making learning more enjoyable and increasing user interest. Training in the form of a serious game has the capability to increase a learner's knowledge, retention of material as well as their confidence for performing a task.

This challenge problem is focused on identifying a training or learning need and then designing, developing, and testing a virtual serious game to meet the specific needs of the end users. Students are challenged to identify a real world task, develop, and test a virtual training or learning environment to address that need. This serious game should be designed to increase knowledge, improve performance or increase efficiency while engaging users in an interactive environment.

1.1. THE TOOLS

Tools such as Unity, SketchUp, 3ds Max® and computer programming could be used to complete this challenge solution.

1.2. THE CHALLENGE

The solution to this challenge would result in an immersive and interactive 3D simulation or serious game for instructional and/or training purposes that best meets the learning needs of the end users.