Voice Games and Simulations Nadine Connor PhD, Lisa Vinney, Communicative Disorders

Connor was seeking an authentic way to prepare her students for careers in Speech and Language Pathology. She created a series of CAP-EV simulations and used Raptivity software to design games to reinforce learning of critical concepts. An experimental study was conducted to test the effectiveness of the games in helping students study. Students were divided into 4 groups: traditional study, games only, games and study, and control (no study period). Participants took a pre-test, viewed an introductory lecture on voice disorders, participated in one of the interventions, took a post-test immediately following the intervention, and took a post-test three days later. Test questions were coded as recall or application. The control group's average change between pre-test and post-test I was significantly different than the other groups in recall and overall. The study group's average change between post-test I and post test II were significantly different than the other groups in recall and overall.

Change from Pre-test to Post-test I

- Control: 20%
- Games: 30%
- Games & Study: 20%
- Study: 10%

Change from Post-test I to Post-test II

- Control: -10%
- Games: -20%
- Games & Study: 0%
- Study: 10%

C’est La Seconde Vie! Thomas Armbrecht, French

In this project, Armbrecht worked with Engage to design scavenger hunt and role-playing activities in Second Life to improve students’ oral and written communication skills in French. Armbrecht reflects on the Award, “The process of creating activities that would appeal to today’s game-savvy students has made me rething the design of non-computer-based classroom activities...The meta-materials I created to help students understand not only how to use Second Life, but also how to complete the assignment I had designed, encouraged me to re-examine the materials that I distribute with paper-based assignments.”

Cool-It John Pfotenhauer, Mechanical Engineering

Cool-It teaches principles of cryogenic design by assigning the student/player to the role of cryogenic consultant. The player chooses from a variety of real-life cryogenic challenges and receives payment for developing a design that satisfies a set of defined constraints. The Cool-It team is exploring the possibilities of using in-game tracking mechanisms to compare solutions paths of experts and novices, hypothesizing the novice players’ solution paths will begin to resemble that of a cryogenic expert as they move through the multiple challenges in the game.

Play@Pyle Feedback A campus event to share the simulations and games developed through the Engage Innovation Award Program

"With LEAP’s discussion of bringing education to the students level and to engage them through life-long learning techniques I thought some of the games really do a good job of carrying this out." - Anonymous Attendee

"I like the fact that simulations can provide experiences that parallel real-world decisions and consequences." - Anonymous Attendee

Post Project Review Engage surveyed awardees to gather feedback on the award program.

"The best thing about having an Engage grant is working with a smart, dedicated, resourceful, and creative team of pros from Academic Technology. They bring invaluable knowledge not only about technology but also about learning." - Anonymous Awardee

"A rigorous, evidence-based approach to game construction and evaluation was used, with step by step revisions along the way." - Anonymous Awardee