Announcing the Final Examination of Crystal Maraj for the degree of Doctor of Philosophy

Time & Location: March 26, 2015 at 9:30 AM in Partnership II 301
Title: Investigating Simulation-Based Pattern Recognition Training for Behavior Cue Detection

This study investigated the ability of Kim’s game in improving pattern recognition in virtual Simulation-Based Training. Virtual agents were animated to display aggressive and nervous kinesic cues and participants were measured on detection accuracy, response time, and false positive detection. Collected survey data also included engagement, flow, and simulator sickness, and all data was compared to a control condition to determine behavior cue detection effectiveness.

It was found that participants in the control condition performed better in detection accuracy and response time, but the Kim’s game group performed better in false positive detection. Many meaningful correlations were found between the survey data collected, and the relationship between working memory and training performance. Several multiple linear regressions were conducted on the post-test performance, and it was highlighted that Simulator Sickness was a significant predictor of post-test performance.

The results from this experiment propose to expand the body of pattern recognition training literature by identifying strategies that enhance behavior cue detection training. Furthermore, it provides recommendations to training and education communities for improving behavior cue analysis.

Major: Modeling and Simulation

Educational Career:
Bachelor’s of Psychology, BA, 2008, University of Central Florida
Master’s of Modeling and Simulation, MS, 2012, University of Central Florida

Committee in Charge:
Dr. Stephanie J. Lackey, Chair, Modeling and Simulation
Joseph Keebler, Wichita State University
Randall Shumaker, Institute for Simulation and Training
Peter Kincaid, Institute for Simulation and Training

Approved for distribution by Dr. Stephanie J. Lackey, Committee Chair, on March 26, 2015.

The public is welcome to attend.