

TASK # SPTT002 Exploring the use of Gamification for Training

PROJECT AT-A-GLANCE

- UNIVERSITY: Auburn University
- PRINCIPAL INVESTIGATOR: JoEllen Sefton
- STUDENT(S): Mary Riley
- INDUSTRY PARTNER(S): Army Gaming Studio

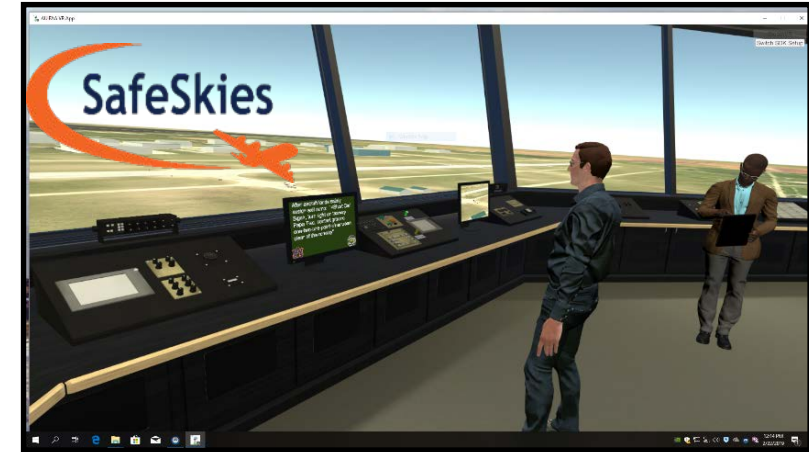
RELEVANCE TO TECHNICAL TRAINING AND HUMAN PERFORMANCE

- A modified ATC curriculum that includes gaming and virtual reality components could dramatically change how we train ATCs, improve recruitment of new ATC students, and better address the needs of digital native students.

STATEMENT OF WORK

- Determine current use of gamification, Game based learning, and virtual and augmented reality, including use of virtual environments, task trainers and simulators. Provide suggested approaches on a way ahead based on the data gathered
- Develop a prototype of a simulated work environment to demonstrate the feasibility of adding gamification/GBL and/or VR to a common training task. (A modular design will be implemented, allowing for future additional training modules and upgrades.)
- 3 – Complete an initial assessment of training efficacy and employee feedback comparing the current training mechanism with the prototype

April 16-17, 2019
The Ohio State University



STATUS

- SafeSkies prototype has been developed, tested, and presented to the FAA leadership.
- We await the determination if a Phase II will be awarded to develop a final product
- If Phase II is awarded we will complete an assessment of the prototype and obtain feedback from students and instructors at the ATC Academy

FUTURE WORK

SafeSkies can also be expanded to train:

- All phases of ATC
- TSA training
- Technical Operations
- UAS integration and training
- Baggage and other safety inspection
- Emergency/disaster planning/training



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Publications, Presentations & Awards

Publications:

- Witte, J., Westbrook, R., & Witte, M. (2017). Gamification and training. In W. James & C. Cobanoglu, (Eds.), *Global Conference on Education and Research (GLOCER 2017) Proceedings* (pp. 154-156). Sarasota, Florida: University of South Florida.
http://glocer.anahei.org/wp-content/uploads/GLOCER_2017_Conference_Proceedings.docx_v2.pdf
- Witte, J., Westbrook, R., & Witte, M. (2017, November). Gaming and training. 66th Annual Conference, American Association of Adult and Continuing Education Conference, Memphis, TN.
- Witte, J., Westbrook, R., & Witte, M. (2017, May). Gamification and training. Global Conference on Education and Research (GLOCER 2017) conference, University of South Florida Sarasota-Manatee, Sarasota, FL.

Presentations:

- Graduate Student poster presentation at Drexel University, Philadelphia during the 2nd Year COE TTHP Grant Meeting
- Presented at the Annual Transportation Review Board Meeting, Washington D.C., 12 Jan 19
- Presented at the Warrior Research Center Tactical Athlete Human Factors Summit, Auburn University, 27 Sep 19

Awards:

- Federal Aviation Administration Center of Excellence Technical Training & Human Performance Outstanding Student of the Year by the U.S. Department of Transportation. (Mary Riley)