Utilizing Guided Simulation in Conjunction with Digital Learning Tools in Air Traffic Control Training

Allison Little  
*Embry-Riddle Aeronautical University*

Benjamin Cook  
*Embry-Riddle Aeronautical University*

Holly Hughes  
*Embry-Riddle Aeronautical University*

Kyle Wilkerson  
*Embry-Riddle Aeronautical University*

Jacqueline Luedtke  
*Embry-Riddle Aeronautical University*, jackie.luedtke@erau.edu

See next page for additional authors

Follow this and additional works at: https://commons.erau.edu/publication

Part of the Aviation and Space Education Commons, Aviation Safety and Security Commons, Higher Education Commons, and the Other Education Commons

Scholarly Commons Citation


This Poster is brought to you for free and open access by Scholarly Commons. It has been accepted for inclusion in Publications by an authorized administrator of Scholarly Commons. For more information, please contact commons@erau.edu.
For students in an air traffic control discipline, simulated training time is limited to in-class time and is divided among the entire class. Students are required to advance and obtain knowledge, skills, and abilities in the lab because there is almost no way to practice at home. All students learn at different rates as well as through different learning styles. Swivl is a digital learning/capture tool designed to enhance student learning by allowing students to refer back to the individual classroom lab training session via an online portal.

Swivl is currently being used in two ATC Lab courses. There are two technological deficiencies that have arisen: (1) Swivl (in the Terminal Radar Approach Control and En-Route Radar environments) lacks the ability to record what is being said over the frequencies. (2) Swivl does not have the ability to focus on the radar scope targets. As a result, the students’ captures have a deficiency in visual clarity. However, the nature of the tower simulator does allow for better visual acuity and effective communication exchange within the Swivl capture.

Currently Professor Perry as well as the ATC lab assistants are researching electronic sources that could enhance Swivl’s ability to be a leading digital learning tool in air traffic control simulation.

Future research will include looking for a way to integrate two audio sources into the same review session. It is important for ATC training that the student can review what is happening in the scenario as well as instructor feedback.

Additional research will focus on a program that sharpens the video image. While the audio is the most important aspect of the training, it would help to be able to better identify what call signs are what radar targets on the scope.