



TECHNICAL TRAINING



# WEEKLY UPDATE

Check Out Information For AJI-2 Employees

Learning Uplifted

## BEST PRACTICES AND METHODS FOR VIRTUAL TRAINING DELIVERY

In February we began a series of articles looking at some of the research projects underway via the FAA's Center of Excellence for Technical Training and Human Performance, previously known as the Center of Excellence for Solutions for Operational Aviation Research ([COE SOAR](#)). You can find previous editions [here](#) on KSN.

In September 2017, a team including Principal Investigators **LuLu Sun** of Embry-Riddle Aeronautical University, as well as FAA Technical Monitor **Christine Madden** and FAA Sponsor **Scott Gilson** began a research project with the Center of Excellence for Technical Training and Human Performance entitled "Best Practices and Methods for Virtual Training Delivery." The purpose of this project was to study training courses offered by FAA Academy, CTI Schools, and other training areas to determine best practices and methods of training delivery.

The team collaborated with industry partners: ATAC, AVT Simulation, JMA Solutions and consultants to determine different efficacious methods for virtual training delivery. After observing a relatively low pass rate, the research team decided to collect data and perform analysis on improvements that can help students pass more courses. The initial tower class was eventually determined to be best-suited as a hybrid/blended learning. This determination stems from the fact that this course a lab simulation component that cannot be easily replaced by web-based learning. Understanding each project's individual requirements and collecting feedback from students has been critical in uncovering the possibilities for our current course offerings. Similarly, the research team also assessed the viability of AT Basics course. After consideration, they determined that AT Basics would be viable as a web-based learning since no lab simulation is involved in this course.

In addition to determining different courses' suitability for adaptation to a different learning methods, Principal Investigator **Lulu Sun**, her student researcher, and industry partners visited individual classrooms, interviewed students and instructors at the academy to learn their perception about the virtual training delivery. These interviews revealed students' attitudes towards new learning methods. Many students believed that as millennials, they have the ability to use new technology to teach themselves in a virtual environment. This coupled with attitudes reflecting preference for hybrid learning information online and traditional hands-on training methods, as opposed to completely virtual format, displays the usefulness of hybrid learning environments, in which a student can take advantage of the two most valuable training delivery methods. Recognizing of these insights, the research team conducted a literature review to observe and study ATC training courses offered by the Academy and Embry-Riddle Aeronautical University.

As the project continues through 2018, more insights will be uncovered and synthesized by the research team. To date, the recommendations for the AT Basics course have grown more specific. The research team foresees a training with hands-on practice and video explanations. They also recommend reducing the length, adding scenario-based learning checkpoints, and an adaptive approach. The recommendations coming from student interviews, literature reviews and Principal Investigator observation will help inform the most efficient and effective way to educate students. This along with many other COE TTHP projects support our mission to maintain a qualified and certifies Air Traffic operational workforce while leveraging the technologies that define our modern world to support the National Airspace System.

If you would like to know more information on this project or its findings, recommendations, and benefits, please reach out to COE Program Manager [Karen Callihan](#), Technical Monitor [Christine Madden](#) or Sponsor [Scott Gilson](#).

### FOOD FOR THOUGHT

'A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty.'

*-Winston Churchill*

### DATES TO KNOW

**August 2:** Lunch & Learn: Airport Facilities Terminal Integration (12—1pm; L'Enfant 3140 & 3141)

### PLANE LANGUAGE

**AAR = Airport Acceptance Rate**, dynamic parameter specifying the number of arrival aircraft that an airport, in conjunction with: terminal airspace.

### NAME THAT AIRPORT!

The airport featured in last week's newsletter was New Delhi, India. Which airport is pictured below?



Week of July 9, 2018