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# UNIVERSAL DESIGN FOR LEARNING AND MULTIMODAL TRAINING (HF001)

Lead Principal Investigator: Ziho Kang (University of Oklahoma)

Co-Principal Investigators: Randa Shehab (OU), Lei Ding (OU), Han Yuan (OU)

Subject matter expert: Stephen West (OU)

Research assistants: Lauren Yeagle, Mattlyn Dragoo

Industry Support: Adacel, ATSI, KeyBridge Technologies

Project Sponsor: Jason Demagalski

Technical Monitor: Katrine Helbing



COE SOAR MEETING 3  
MARCH 1-2, 2017



# PROJECT OVERVIEW



- Description: benchmark, adapt, and introduce new approaches in UDL design-based learning and multi-modal training for air traffic controllers.

The “what” of learning:  
Information representation



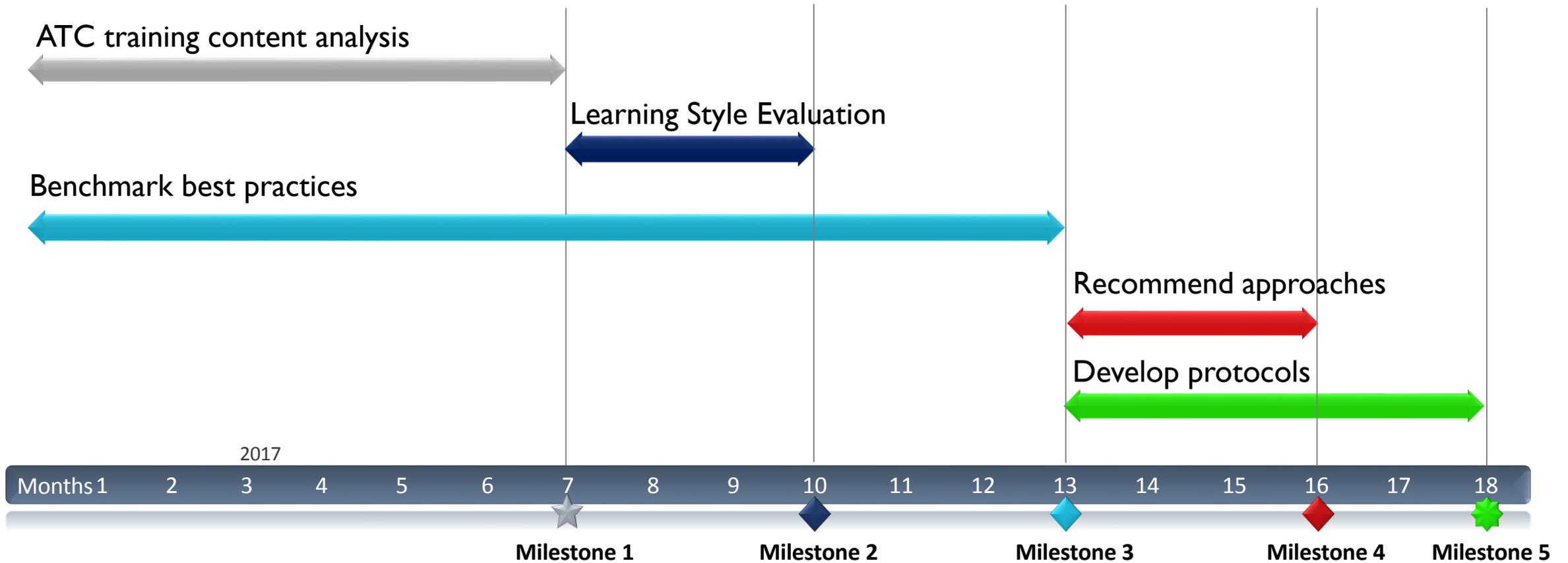
The “how” of learning:  
Action and expression



The “why” of learning:  
Engagement



# TIMELINE / DURATION



## MILESTONE DETAILS



### Milestone

### Planned Due Date

**ATC training content analysis:** Map UDL principles to current curriculum. Develop classification system for the various presentation modalities.

7 months after awarded date

**Learning Style Evaluation:** Investigate and classify preferred learning styles from ATC candidates.

10 months after awarded date

**Benchmark best practices:** Investigate existing and new state-of-the-art multi-modal training methods considering the UDL principles.

13 months after awarded date

**Recommend approaches:** Align the content analysis with the benchmarking study to recommend adapted and/or new ATC training methods.

16 months after awarded date

**Develop protocols:** Develop performance evaluation metrics and procedures to assess the learning outcomes.

18 months after awarded date

# PROGRESS UPDATE



- Are you on target for your deadlines?

Dependent on the survey clearance and interview scheduling processes.

- If not, will you need an extension?

If the clearance and scheduling processes are delayed, then we will need to request no-cost extension of approximately two to three months.

# PROGRESS UPDATE



- What progress have you made/goals have you met?

## **Milestone 1: ATC training content analysis**

1. Four core courses and their structures investigated:

Air traffic basics (ATB), Enroute, Tower, and Terminal radar (RTF/TSEV)

2. Performed classroom observations and informal interviews with the instructors at OU aviation.
3. Developed interview questions for the instructors and students at the FAA Academy.
4. Currently scheduling multiple visits to the FAA Academy during April or May.
5. Preparing IRB document. (waiting for survey clearance)

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# PROGRESS UPDATE



- What progress have you made/goals have you met?

## **Milestone 3: Benchmark best practices**

6. Performed review of UDL methodologies through literature and UDL center websites.
7. Mapped detailed examples provided from various areas to each UDL principles.
8. Currently preparing a paper for a conference proceeding to show the possibilities of how the examples from other areas might be applied in ATCO training.

# PROGRESS UPDATE



- What are your future plans?

## **Milestone 1:**

1. Wait for interview clearance and finish scheduling interviews.
2. Obtain IRB consent.
3. Conduct interviews with the FAA Academy instructors and students during April and May and scheduling processes are not delayed.
4. Obtain and analyze the detailed teaching materials of the four core courses.
5. Continue performing observations and informal interviews at the OU Aviation.

given that the clearance

## **Milestone 3:**

6. Continue benchmarking.
7. Submit conference paper.