

RESEARCH IN VIRTUAL ENVIRONMENTS AT EMBRY-RIDDLE AERONAUTICAL UNIVERSITY WORLDWIDE CAMPUS



EMBRY-RIDDLE
Aeronautical University
WORLDWIDE

Contributors

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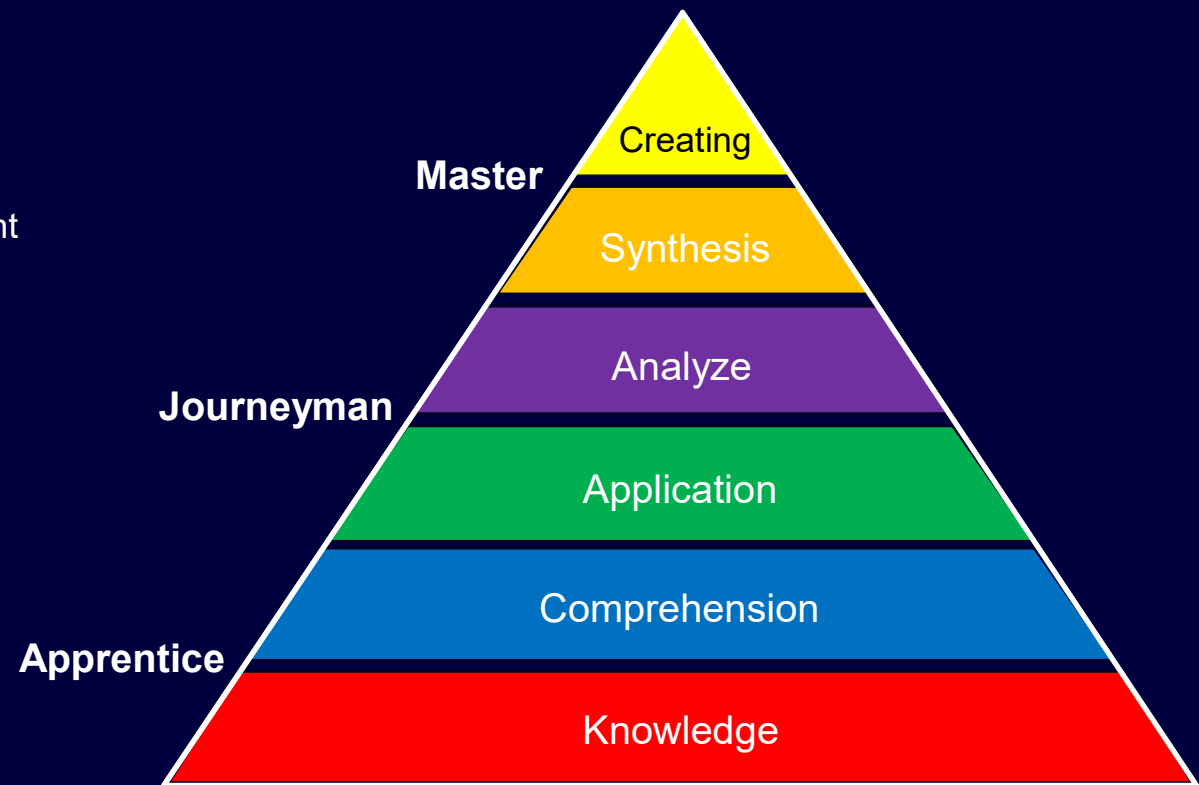
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OUR CHALLENGE & WHY IS IT RELEVANT TO A TRAINING DISCUSSION

- Embry-Riddle Aeronautical University – Worldwide Campus
 - Global reach
 - Distributed modality – rigorous content
 - Technology rich infrastructure
- Applicable to “distributed training” environments too
- **Same Goal** – move participant up in skill level and/or maintain certification



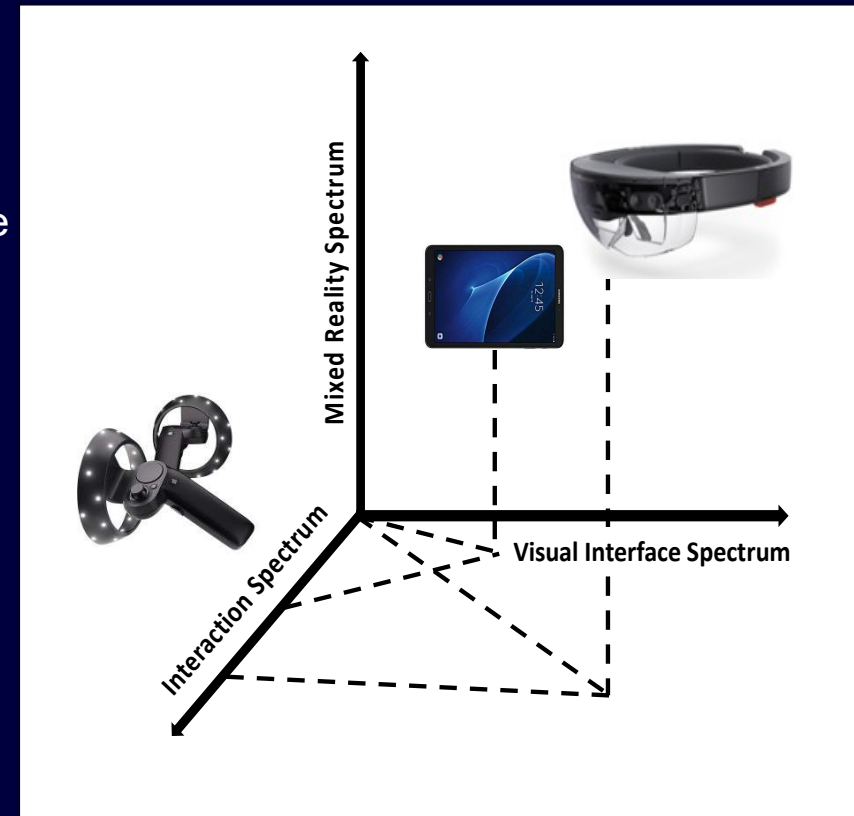
CURRENT CAPABILITY

- **Delivery**
 - Geographically distributed learning & training
 - Synchronous & asynchronous modalities
 - Excellent Learning Management System (LMS) and support team
 - Exploring implementation of instructional design concepts with rigorous STEM content
 - Equipment is available – needs to be integrated
- **Recent Feature – Affordable Virtual Environments**
 - Can be used anywhere at anytime
 - Challenges
 - Informationally efficient design
 - Implementation of effective learning activities
 - Cost



FUTURE TOOLS FOR LEARNING

- **VR and AR technology**
 - High end systems exist – but limited locations
 - Distributed affordable user accepted solutions possible
 - Can enable broader reach
 - Aptitude identification, basic skill proficiency
- **Human factors component**
 - Additional understanding needed for integrating technology with functional goal:
 - User interface (gestures and wands)
 - Cognitive and task loading scenarios
 - Learning roadmap



CONCLUSIONS

- Education & training is more globally distributed
- VR and AR technologies are enablers
 - Scalable and Affordable
- Assessment instruments required to evaluate technology effectiveness on educational and training goals
 - Ecological Validity – measuring transfer from training environment to the workplace