

Leveraging Active Learning - Improve Army Outcomes

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The US Army Learning Concept for Training & Education, 2020-2040 encourages institutions to

- Conduct tough, realistic individual and multi-level collective training in the conditions that approximate the appropriate operational environment.
- Conduct individual learning activities, resident and non-resident to meet command or career developmental requirements.
- Maximize peer-to-peer learning to facilitate problem solving, collaboration, information sharing, and provide virtual learning opportunities.
- Develop critical and creative thinkers with highly refined problem solving skills to build teams and collaborate with mission partners and meet the challenges of the operational environment.
- Participate in synchronous or asynchronous distributed learning.
- Leverage the Army information network construct to train and educate across training domains linking the
 operational and institutional armies to training support enablers, digitized learning content repositories, and to
 support on-demand learning.
- Enable learners at the individual or group level to have on-demand access to learning content wherever it resides with speed and reliability commensurate with available commercial products.
- Integrate advances in learning technologies, evidence-based learning methods and digital literacy to improve and modernize individual continuous adaptive learning.











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Case Study Key Stakeholders

Enterprise Classroom Program

Responsible for the installation, maintenance, and sustainment of technology and audio visual equipment in classrooms across TRADOC.

 Matches classroom configuration and technology to the course content and expected outcomes.



Directorate of Distributed Learning

Delivers standardized training and education to Soldiers, leaders, Civilians, and units using multiple delivery means and technologies that provide the capability to enhance and sustain Army readiness . The Army Distributed Learning Program leverages technology and curriculum design to provide costeffective and efficient learning content.

The Army Virtual Learning Environment

The AVLE program provides content that enables interactivity such as gaming, synthetic tutors, 3D model and simulation, learner performance dashboard and virtual environment / reality.

Technology Integration Branch (TIB)

The TIB leverages technology, blending innovative techniques and creating immersive experiences without sacrificing standards to provide credible, relevant, and on demand training and education for Soldiers and leaders.







Traditional vs Active Learning

Petroleum and Water Department (PWD) is the case study for risk, investment, and outcomes:

- Traditional learning involves lecture where students are asked to participate by asking or responding to questions.
- In contrast, PWDs approach places the emphasis on Active Learning strategies helping stimulate learners and instructors by creating an environment assisting in student engagement.
- Successful active learning activities provide an opportunity for Soldiers to think and engage the course material, and practice skills for learning, applying, synthesizing, and summarizing that material.
- A 2017 National Survey of Student Engagement examined engagement experience of hundreds of thousands of students (1600+ colleges and universities) shows that the Active Learning environments designed for hands-on, integrative, and collaborative experiences lead to high levels of student achievement and personal development.
- The PWD Active Learning environment and approach discussed in this case study demonstrates through multiple instances of instruction over the last 18-24 months our results with the use of enhanced technologies in PWDs classroom also lead to improved student outcomes and information retention.













92W Digitization / Blended Learning Pilot



Adapting the Institution to Meet Future Learning Demands



Introduction, Safety, Risk Assessment/Environmental



Brainstorming (Group Activity)







Student Centric IMI

- First Advanced Individual Training course in TRADOC transitioning to blended/active learning
- Projected course reduction 2 weeks (from 12 to 10 weeks)
- Downloadable virtual products at the point of need
- Virtual repetition + muscle memory = Technical proficiency
- Tailored to meet today's pocket learners / tech savvy generation



Peer-to-Peer Learning



Virtual System Set-up/Ops



Hands on Set-Up/Ops



Reach-back





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Water Treatment Specialist Task A DTE Video Clip





Click Image to Run Video

Video showing a Water Treatment Specialist using 3D Simulation content to perform tasks.



Click here to view the CASCOM Facebook Army Virtual Learning Environment at PWD Video



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Blended Learning Metrics







Classroom configurations will continue to evolve with advancements in technology and teaching methodologies. This stimulates changes in curriculum that benefits the students and Army readiness. The examples of Petroleum and Water Department's use of digital training enablers provides a better return on investment through their use of effective training options presented within a simulated and virtual environment.

Virtual Reality Support – ECP continues collaborating with the Directorate of Distributed Learning (DDL) and SCoE/Quartermaster School, Petroleum and Water Department to support development and fielding of active learning content, to include virtual reality, through the design, procurement and installation of technology solutions for testing prior to delivery and implementation of the content.

The classroom of the future will most likely be a combination of live, virtual and distributed learning from where ever the student is located and connecting the institution, operational, and self development in a synthetic environment.





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