Validating Training Effectiveness of Wide Area Virtual Environment (WAVE) in Medical Simulation

Aim High...Fly-Fight-Win

Briefing for MMVR Conference
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Background

- $610,000 was funded by DHP 6.7
- Funds included:
  - 3-Screen WAVE Upgrade
  - Optical tracking system
  - 1 FTE support for data collection
  - Training supplies
- Study kicked off Aug 14th 2013
- Scheduled to complete July 2014

Purpose

- To evaluate training effectiveness and measure sense of realism of the WAVE to better prepare medical staff for deployed duties compared to currently used field environment
- To assess the impact of the WAVE on students’ satisfaction with their training exposure

Hypotheses

- Students will feel training in the WAVE environment is more realistic compared to previous medical training
- Students will feel better prepared for cognitive and affective functioning after training in the WAVE environment
- Students will perform (time & medical skills) better in field environment vs. WAVE environment
- Student communication will be better in the field environment vs. the WAVE environment

Significance/Potential Impact

- Demonstrate the impact of the WAVE on efficacy of training to prepare warfighters for deployed medical duties.
- Potential for positive patient outcomes in theater due to augmentation of training for deploying personnel
  - Additional stressors (sights, sounds, smells) may impede performance compared to a non-stressful training environment
  - On-the-job training is not an option with patients
- Results could be used to enhance other DoD training platforms if learning modality is proven efficacious.

Data

- **Required sample (80% power):**
  - Need minimum of 400 students
  - Team N=100 (50 per training environment)
- **Current status:**
  - 350 students and N=70 teams (5 individuals per team)
  - 175 students and N=35 teams per training environment (WAVE and field)
Please give us your feedback on the AFMAST Program!

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For current contact information spreadsheet, check out the AFMAST Portal Secure – https://secure.afmmast.mil