Abstract ID: 16305
Title: Interoperable Learner Data to Support Training Effectiveness Assessment

Subcommittee: Policy, Standards, Management, and Acquisition

Abstract Text: As training resources are increasingly constrained, the U.S. military has placed a renewed interest in training effectiveness assessment (TEA) to ensure those resources are used to maximum benefit. In this paper, we describe research to develop a system for tracking trainee performance during Army basic rifle marksmanship training. This system enables an assessment of training technologies and methods in context and provides a richer understanding of how training events interact to produce a final learning outcome. The effort leverages work on the Experience API (xAPI) of the Advanced Distributed Learning (ADL) Initiative in an effort to produce data that has intersystem data value. The intent of the effort is to enable the collection of data across the training continuum that 1) enables a historical view of proficiency, 2) demonstrates a live view of performance, 3) enables macro and micro adaptations, and 4) collects data for trends analysis for efficacy and effectiveness studies. Importantly, the data represented in this system serve a variety of audiences within the training community, including trainers, leaders, resource managers, and researchers. Here we present foundational research to develop the use cases and design of this system. Based on a user needs analysis, we developed a library of interoperable performance measures relevant across the marksmanship training curriculum and an xAPI registry to encode these measures. Additionally, we present the design of an architecture for managing and presenting these data that supports not only training effectiveness assessment, but a variety of other use cases including resource management, predictive analysis, and tailoring training.

Will this paper have one or more authors from outside the U.S.? No

Discussion Points:
1. rifle marksmanship
2. xAPI
3. data interoperability
4. training effectiveness

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Status: APPROVED
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Policy, Standards, Management, and Acquisition: Non-technical policy and management issues related to the acquisition and implementation of education and training, training systems, courseware and training enablers.

This subcommittee is seeking non-technical papers related to policy and management issues associated with the acquisition and implementation of education, training, courseware and simulations. Papers should focus on government or commercial directives regarding the methodologies, processes, and standards development that support various simulation communities. Papers should identify challenges, successes, risks, financial impacts, and the impact of the topic area on overall design goals. Papers that relate to the program management and acquisition of programs will also be considered. Papers should provide qualitative and quantitative data to help substantiate outcomes discussed within each paper.

Evaluation

Substance: The controlling idea and the support for it. The total concept the author wants to present. A good idea can survive mechanical flaws. But perfect spelling and grammar can't save poor ideas.

Originality: A new concept that furthers the evolution of the committee's subject area. A repeat of past theories that add nothing to the community of knowledge are generally unacceptable, unless the prospective abstract/paper promises to impart knowledge that may be of substantive value to a novice audience.

Acceptance

Accept [ ] Reject [ ] Discuss [ ] Sales Pitch [ ] Similar Abstract [ ] Transfer to [ ]

International Abstract [ ] (Specify 30 Ref No.)

Key Words or Concepts

Other Comments/Remarks