Exhibit R-2, RDT&E Budget Item Justification: PB 2013 DoD Human Resources Activity									DATE: February 2012	

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	PE 0603769SE: *Distributed Learning Advanced Technology Development (ADL)*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	13.915	13.579	12.195	-	12.195	12.116	12.090	12.303	12.303	Continuing	Continuing
Project 1: *Advanced Distributed Learning*	13.915	13.579	12.195	-	12.195	12.116	12.090	12.303	12.303	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department of Defense Human Resources Activity (DHRA) is a DoD-wide Field Activity chartered to support the Under Secretary of Defense for Personnel and Readiness (USD (P&R)).

Advanced Distributed Learning (ADL) Initiative: This program develops the technologies to make learning and performance support available to service members, anytime, anywhere. The ADL concept enables the ability to migrate online learning content to multiple hardware and software applications using the Sharable Content Object Reference Model (SCORM®) standard. It has become the defacto standard and is moving through international bodies for global accreditation; its use is mandatory throughout the Department of Defense (DoD) through (Instruction1322.26). The program develops and maintains US and international partnerships with public education, vocational training, and lifelong learning programs. Policy oversight is managed by the Office of the Deputy Assistant Secretary of Defense/Readiness (Training Readiness and Strategy). Current research is on an advanced concept for the purpose of development of a Personal Learning Assistant (PLA) that will provide training and learning to promote adaptability and agility in the workforce with the capability to tailor and adapt instructional material to fit the learners' strength and weaknesses, learning style, and level of proficiency.

B. Program Change Summary ($ in Millions)

	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	13.986	13.579	-	-	-
Current President's Budget	13.915	13.579	12.195	-	12.195
Total Adjustments	-0.071	-	12.195	-	12.195
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-0.071	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Changed to add FY 2013 Baseline	-	-	12.195	-	12.195

PE 0603769SE: *Distributed Learning Advanced Technology Developme...*
DoD Human Resources Activity

Exhibit R-2A, RDT&E Project Justification: PB 2013 DoD Human Resources Activity		DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603769SE: *Distributed Learning Advanced Technology Development (ADL)*	PROJECT Project 1: *Advanced Distributed Learning*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Project 1: *Advanced Distributed Learning*	13.915	13.579	12.195	-	12.195	12.116	12.090	12.303	12.303	Continuing	Continuing

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B. Accomplishments/Planned Programs ($ in Millions)

	FY 2011	FY 2012	FY 2013
Title: Advanced Distributed Learning	13.915	13.579	12.195
Description: Research, develop and deploy new learning technologies with the ability to emulate an expert personal trainer/ coach, capable of learning about an individual, taking into account individual differences (prior knowledge, ability, learning rates, working memory, etc), sensing their learning state (e.g., attention, fatigue), and tracking and monitoring their learning throughout their life—adapting course material in a manner best suited for the individual. *FY 2011 Accomplishments:* • Published research articles in leading professional journals on the effectiveness of online learning compared to classroom training • Tested advanced instructional methods using intelligent tutors for training Horn-of-Africa scenarios at the Joint Forces Command. • Completed specifications for bridging technical publications to the SCORM model *FY 2012 Plans:* • Publish research articles in leading professional journals on the effectiveness of online learning compared to classroom training;			

Exhibit R-2A, RDT&E Project Justification: PB 2013 DoD Human Resources Activity		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603769SE: *Distributed Learning Advanced Technology Development (ADL)*	PROJECT Project 1: *Advanced Distributed Learning*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
• Research new learning technologies for possible integration into DoD educational and training programs to include the ergonomic integration of less-invasive, human-computer devices within a training environment and structured learning content schemas and transformation technologies that can modularize content, enhance semantic understanding, and improve the prospects for reuse; • Test advanced instructional methods using intelligent tutors for training; • Establish advanced concept research and prototypes for the Next Generation SCORM standard. *FY 2013 Plans:* • Research new learning technologies for possible integration into DoD educational and training programs to include innovative methodologies and approaches to using Social Networking for solving problems in collaborative, disparate environments in a manner that improves learning outcomes and demonstrate the application of the spacing effect using current mobile technologies to reinforce learning and improve long-term retention. • Continue to test advanced instructional methods for intelligent tutors for training; • Continue research on advanced concept research on the next generation learning environment.			
Accomplishments/Planned Programs Subtotals	13.915	13.579	12.195

C. Other Program Funding Summary ($ in Millions)
   N/A

D. Acquisition Strategy
   Not Required.

E. Performance Metrics
   In FY2013, conduct research for the purpose of exploring the application of new and emerging educational and training technologies for development of a capability by which learners have access to effective, personalized learning content and/or job performance aids that are presented in a format suitable for their preferences and can be accessed from multiple devices/platforms. Prototype an Intelligent Tutor to assess the validity, scalability, exportability and affordability of DARPA's "Education Dominance" program incorporating the processes utilized for Education Dominance and generalize them into mathematics to be applied to DoDEA schools curriculum with the intent to determine the utilization of this technology across DoD and as a step toward the more comprehensive PLA. Metrics include, but are not limited to; Scalability, Generalizability, and Affordability as defined below:
   • Scalability – Usable across the Department of Defense (DoD) and other federal agencies.
   • Generalizability – Built on a framework that can be used as a basis to provide this capability for any topic.
   • Affordability – Reasonably priced solution to enable wide spread use.

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