The current transition path is with the Naval Education and Training Command (NETC) and has been tested with their Apprentice Technical Training (ATT) School, specifically targeting sailors who have large delays between A School and C School (~6 months) and show skill decay during that time. Results from a study of a hundred Sailors showed that PAL3 prevented skill decay compared to a control condition.

The classroom of the future will be loaded with technology; however, the most dramatic change is that education and training will be the role of the teacher/instructor evolving from “sage on the stage” to that of a coach, augmented with intelligent tutoring aides. Education and training will become personalized where students will have their own Personal Learning Assistant (PAL) that incorporates intelligent tutoring technologies with the capability to record courses taken, grades earned, and recommend future courses required to reach personalized goals.

PAL3 is a computer-based personal assistant that will help Sailors maintain their knowledge and skill proficiency and eliminate skill decay. The objective of this program is to demonstrate that a computer system can be used as a personal mentor. Extensive use of such a system will provide an individualized proficiency and readiness tracking capability. Small micro assessments (e.g., five minutes every day) would not only be a more accurate gauge of a Sailor’s readiness, but remediation will maintain a sailor’s proficiency at the highest levels and provide guidance on when refresher training is actually required based on objective evidence of skill decay.

PERSONAL ASSISTANT FOR LIFE LONG LEARNING (PAL3)

Helping Sailors maintain their knowledge and skill proficiency and eliminate skill decay.

Just imagine your PAL not only tracks your learning progress but effectively adapts instruction to match your particular learning preference.
HOW DOES IT WORK?

PAL3 will query new Sailors, fresh from A School, on how to perform their duties. It will provide through a mobile device:

• Reach back to A School material, limited tutoring, advanced Q&A, and guidance on best course of action or resources to consult
• Continual proficiency assessment, tracking, and remediation (e.g., question of the day)
• Step-by-step instructions and guidance on obtaining required and relevant qualifications
• Pertinent data and information on the shipboard duties
• Assess emotional state and engagement through eye-tracking and facial expression
• Track progress using a life-long learning record of learning experiences and performance data

WHAT WILL IT ACCOMPLISH?

PAL3 will address current training needs through repeated micro assessments that provide a more accurate gauge of a Sailor’s readiness and allow automated, targeted remediation that will improve material retention and reduce knowledge and skill decay.

RESEARCH CHALLENGES AND OPPORTUNITIES

• Develop cognitive models of what Sailor should know
• Advanced Q&A and guidance on best course of action or resources to consult
• Proficiency assessment, tracking, and remediation
• Career guidance dialogs and support for setting and achieving career goals
• Social mechanisms such as teams of learners to foster motivation and learning
• Assess emotional state and engagement
• Rapidly register and integrate new types of learning resources

WHAT’S NEW?

• Summative study results demonstrate that PAL3 prevented skill decay
• Improved user roadmap
• Explanations for content recommendations generated from the PAL3 learner model
• Team leaderboard functionality
• Social activity feed
• New external resource API and external resources
• Virtual mentoring capability

For further information on this exhibit, or business opportunities with ONR, please contact the Training S&T Program Officer, Human & Bioengineered Division, Warfighter Performance Department, Office of Naval Research at (703) 696-4501, or by mail at Office of Naval Research, 875 N. Randolph St., Arlington, VA 22203.