

ACCELERATING LEARNING IN THE U.S. NAVY WHILE SAVING TIME AND MONEY



The U.S. Navy was founded on October 13, 1775, and the Department of the Navy was established on April 30, 1798. The Department of the Navy has three principal components: The Navy Department, consisting of executive offices mostly in Washington, D.C.; the operating forces, including the Marine Corps, the reserve components and, in time of war, the U.S. Coast Guard (which is a component of the Department of Homeland Security during times of peace); and the shore establishment. Website: www.navy.mil

The U.S. Navy has an enormous task of providing individual training to about 30,000 sailors each year. Each sailor annually receives about 3,000 hours of training, and the costs associated with traditional classroom learning takes a big bite out of the Navy's budget.

Recently, the Navy launched a new educational initiative, called Revolution in Training, which employs online, learner-centric delivery to accelerate and improve the quality of learning while reducing costs.

The Naval Personnel Development Command (NPDC) is leading the Revolution in Training initiative with the focus on providing the right training at the right time and in the right place for the right sailor in an environment where sailors can improve themselves and advance in the organization. The Navy launched the initiative across the five Class "A" Schools, where sailors go after recruit training to receive basic technical knowledge for a job or specialized training. The Navy has more than 60 job fields from which enlistees may choose, from electricians and avionics technicians to cooks and military police. Navy Class "A" Schools are located on military bases throughout the United States.

THE CHALLENGE: IMPROVED FLEET READINESS THROUGH ACCELERATED LEARNING

The Navy needed to implement a learning environment that would ultimately improve fleet readiness, accelerate learning and reduce training costs.

The Navy wants highly prepared sailors who have passed through rigorous training and multiple performance tests. The learning environment would need to identify sailors' knowledge gaps early in the training process and offer prescribed content that would ensure sailors are getting the right information at the right time.

This initiative would help the Navy move from group-paced, instructor-led training to a self-paced, learner-centric approach that would enable sailors to proceed quickly through the curriculum. The organization sought a learning solution that would measure and build on sailors' prior learning with customized learning content, allowing the most dedicated and self-motivated sailors to return to their posts sooner.

The Navy spends about 14 percent of its total annual budget, about \$10 billion, on training. With the Navy's "time is money" mentality, reduced training time translates into significant savings. By implementing an e-learning environment, the Navy could reduce staff and sailors' time spent in training organizations.

THE SOLUTION: AN ENTERPRISE LEARNING REPOSITORY

To achieve its goals, the Navy's NPDC worked closely with Turtle Rattle Learning, Inc. (TRL), a provider of training and education services, and Jardon & Howard Technologies, Inc. (JHT), a provider of instructional design, graphic design, programming and program management, to help implement the new initiative. The Navy also selected an adaptable and comprehensive Learning Content Management System (LCMS) from Kenexa, an IBM Company, to provide an enterprise learning asset repository and provide the authoring and content management functionality for the Navy's Integrated Learning Environment (ILE). As a consultant to the Navy's ILE, TRL identified Kenexa LCMS's authoring and aggregation capabilities as ideal for rapid content development and enterprise-wide reuse of common learning materials. TRL worked with JHT to develop a comprehensive analysis, design and development approach that optimized Kenexa LCMS while meeting the Navy's highly progressive instructional goals.

"We recognized Kenexa as ideal for quickly developing and assembling reusable content while providing the customized learning that really improves and accelerates training," said Jim Lacey, president of TRL.

THE OUTCOMES: SAVING THE NAVY TIME AND MONEY

The Navy's move to a learner-centric, online delivery approach, which included prescriptive learning, saved more than \$8 million by reducing training time by 45 percent. For example, the Interior Communications school pipeline used to take 106 days to complete. Now, sailors can graduate in as little as 38 days with the same or more knowledge. This reduces training time 45 percent and actual in-class training 65 percent, saving the Navy \$7,000 per sailor without sacrificing quality.

With Kenexa's LCMS prescriptive learning capabilities, sailors can take assessment tests that identify what they do not know, and then receive a prescribed course of learning content that covers only those areas. This approach ensures that training is more productive and efficient. "About 25 percent of the Navy's learners are considered 'fast trackers' and excel at problem solving on their own," Lacey said. "With their new e-learning environment, these sailors can progress through courses at their own pace and be rewarded by moving into their jobs more quickly."

Other sailors who need more help receive personalized courses and assessments that help them close their knowledge gaps and move to the next level.

Sailors can be involved in a training simulation, then easily leave the application to take a quick assessment test, and then go right back into the simulation. "We are really impressed with the level of granularity that Kenexa LCMS provides with its prescriptive learning tools," Lacey said. "By giving sailors this level of flexibility and control of their online learning experience, the Navy has reduced its training hours while at the same time improved the quality of their training."

The Navy also saved about \$5 million by reducing course development time by almost 50 percent. TRL worked with the Navy to identify common, recurring training requirements across all five Class "A" Schools, as well as the unique training elements of each school. It was discovered that of the 3,200 instructional hours required in the first five courses, about 500 hours were common could be reused. While traditional content development with LMS delivery would have required the developer to build all 3,200 hours of content, Kenexa LCMS authors results in Sharable Content Objects (SCOs), which can be assembled and reused dynamically. This reuse capability ensured significant savings in both time and money.

The Navy originally estimated it would take years to develop the course content, when in reality it only took seven months from the initial content analysis to the first sailors graduating from the courses. The actual development time was about four and a half months, resulting in approximately \$5 million in cost savings.

"In total, we have satisfied some 5,000 hours of instruction with 800 redesigned hours of stand-up and paper-based instruction to web-

based e-learning in 20 months," said Mary Louise Hutchings, Vice President at JHT. "Traditional methods could have required up to eight years."

To achieve fast and consistent authoring, the Navy used Kenexa LCMS's template-driven environment that allows instructional designers, course developers and subject matter experts with no programming knowledge to rapidly develop learning content. Because Kenexa LCMS's repository of reusable learning objects is searchable, developers can find and reuse relevant existing content when building courses, rather than having to develop content from scratch. Changes to content are automatically propagated to every place that the content is used. These efficiency gains increase as more content is created and stored in the repository.

Depending on the instructional design, developers can start building course content very early in the process. Since presentation is separated from content, they don't have to worry about the final look and feel, as it is all customizable and applied at delivery time. They also don't have to spend time checking their content for SCORM (a set of technical standards for e-learning software products) compliance. All content created in Kenexa LCMS is SCORM 1.2 and SCORM 2004 compliant, and LCMS can ingest SCORM content created by any tool and manage it, maintain it and assemble it for delivery.

Using Kenexa LCMS's, sailors achieved blended learning and improved knowledge analysis. Because every sailor learns at a different rate, Kenexa LCMS supports personalized learning by serving up content to each sailor based on his/her profile and learning needs, and delivers it through a blend of channels.

The Navy has also improved the way it can identify knowledge gaps early in the learning process and address them immediately. Kenexa LCMS tracks all learner interactions and reports on the results. The information shows the Navy where learners are and how it impacts their job performance.

Using Kenexa's LCMS's configuration management functionality, the Navy can track where changes in curricula have impacted time-to-train. Tweaks and improvements can be made immediately based on analysis of which learning objects are slowing sailors down. "The ability to manage content at this level is unprecedented," Lacey said. "We refer to it as a 'mass customization,' in that we can create remediation loops that automatically trigger based on how a sailor performs with the content. Each sailor could theoretically take a unique path through the material."

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Challenges

The Navy needed to implement a learning environment that would ultimately improve fleet readiness, accelerate learning and reduce training costs. In addition, this environment would need to identify sailors' knowledge gaps early in the training process and offer prescribed content that would ensure sailors are getting the right information at the right time.

Solution

The Navy selected Kenexa LCMS to provide an enterprise learning asset repository and provide the authoring and content management functionality for the Navy's Integrated Learning Environment.

Results

- The Navy saved between \$8-10 million by reducing training time by 45 percent
- By cutting course development time in half, the Navy saved about \$5 million
- Sailors achieved blended learning and improved knowledge analysis by using Kenexa LCMS