



Background

As part of the Office of the Under Secretary of Defense for Personnel and Readiness, the Defense Manpower Data Center (DMDC) supports the information management needs of and develops software applications for the Department of Defense (DoD) and its service members. DMDC also provides training for users of its applications. To learn more, visit <https://www.dmdc.osd.mil/>

DMDC administers the Real-Time Automated Personnel Identification System (RAPIDS). RAPIDS is a critical application that allows personnel to issue DoD identification credentials to eligible populations. RAPIDS Verifying Officials (VOs) and Site Security Managers (SSMs) act as critical gatekeepers to the nation's defense information and facilities by controlling the issuance of Common Access Cards (CACs) and other identification media. CACs are identification credentials encrypted with biometric information and are used throughout the world to access DoD networks and to provide physical access to DoD facilities.

Business Situation

DMDC struggled with the high cost of sending trainers to 2,000 issuance sites across the globe to teach RAPIDS users how to use the system. Because of the deployment of troops to remote sites and the limited number of qualified trainers, it was difficult and expensive to properly train the workforce. Additionally, VOs and SSMs often rotate in and out of these roles at RAPIDS sites, increasing the importance of a sustainable and flexible training approach for these RAPIDS users.

Outcomes

Working with Booz Allen Hamilton, DMDC created the RAPIDS user certification course. The RAPIDS course is available on any standard browser or operating system worldwide via AtlasPro, a SCORM 2004-certified LMS. A PKI-enabled login process ensures that the certification training participants are authenticated as users and that the person completing the certification exam is the person who is certified. This helps eliminate fraudulent training certification.

With SCORM 2004 sequencing and navigation rules, learners can demonstrate their existing knowledge of the RAPIDS system and opt-out of training they do not need. The result is improved learner motivation and reduced time to mastery of new content. As a result, DMDC has, for the first time, established a true standard of knowledge to certify users of its applications. The evaluation model used in the RAPIDS courseware, for example, includes both pre-test and post-test assessments that require the learner to demonstrate mastery of the subject matter before graduation. This has reduced graduation time down to an average of 5.5 hours compared with 3 days for the instructor-led version of the course.

By making the RAPIDS course SCORM-compliant and repurposing content, DMDC can update and maintain course content in a fraction of the time needed for initial course development. DMDC recently updated 80 percent of the RAPIDS course content in about half the time needed for the initial course development. Since the use of SCORM makes it easy to move from one LMS to another, DMDC has also been able to port courses to other government agencies, such as the Department of the Interior, saving resources for the government as a whole.

Best Practices

RAPIDS certification exams contain a mix of “traditional” questions, such as multiple-choice, matching, and true-false (that test knowledge-based learning objectives) and application simulations (that test performance-based learning objectives). The performance-based assessments are application simulations, a major component of the pre-test exam, the content delivery lessons, and the post-test exam. The simulations use the effective Guide-Me, Let-Me-Try, and Test-Me approaches. The use of simulations is a particularly effective method of training personnel in an environment that closely emulates their actual work conditions.

The certification exam performance-based questions ask learners to demonstrate their performance of application procedures in a simulated environment. The exam questions are randomly drawn from a test-bank with post-test remediation links that access appropriate content lessons. Each step in a procedure is graded, and learners must demonstrate mastery of learning objectives before they can complete the post-test and become certified. Learners can complete the exam component of any learning objective in either the pre-test or the post-test. Once a learning objective exam component is marked as “passed” in the pre-test, a review of the associated content is no longer required, and the exam component is marked as “passed” in the post-test also. If learners miss any questions, they receive a customized course covering only the learning objectives for which they have not demonstrated mastery.

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