Chapter VII

Transforming Instructional Design Ideas into SCORM-Conformant Learning Products

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Abstract

This chapter discusses the lessons learned while designing a SCORM-conformant Web-based courseware product using an iterative instructional design process. In particular, it describes some of the design trade-offs between instruction that is highly modular vs. situational and instruction that is highly interactive vs. highly contextualized. Organizational issues, such as metatagging and asset naming procedures, and the challenge of designing realistic and motivating e-learning assessments are presented as well.
Introduction

Sharable content object reference model (SCORM)-conformant learning systems have quickly moved from being an idea to a reality—a required reality for e-learning content developed for use by many organizations, including federal agencies of the United States. The concept behind SCORM is to provide a standardized format for e-learning content so that it may be used with any conformant learning management system and reused in other SCORM-conformant system. This concept makes SCORM attractive to many organizations or agencies that develop Web-based training for large audiences and multiple uses. While following the SCORM guidelines may at first sound simple and almost procedural, however, in practice it may require rethinking instructional design plans and compromising some pedagogical ideas in the interest of making the technology work. Additionally, the implementation of SCORM standards is a relatively recent phenomenon, meaning there is much theory but little practical experience to guide the instructional design process.

This chapter describes the lessons learned while designing Web-based courseware as part of a partnership between the Department of Veterans Affairs, the Department of Defense, and Image Technical Services, Inc. The goal of the courseware, entitled Emergency Response to Weapons of Mass Destruction (WMD) Course, while in development, is to prepare health care clinicians and leaders at Veterans Affairs medical facilities to respond to a potential terrorist attack. It is based on a six-section handbook created by the Department of Veterans Affairs that will serve as a paper version of the course for learners who prefer this mode of instruction, and in case of a power failure during an actual terrorist attack. This chapter discusses our design process and some of the challenges and decisions we faced during the development of engaging courseware that meets the SCORM 1.2 standard and the objectives for the WMD course.

Client and Learner Needs

As experienced instructional designers, we knew that addressing the client’s needs would be critical to the success of the courseware. At the same time, we wanted to meet the learners’ needs by supporting a variety of learning styles as well as providing contextual information to support effective learning. The client entered the project with a clearly defined idea and mission, although there was room for creativity within the execution. In other words, the instructional goal, learners, content, and technology were predetermined, but how we merged these four areas to create an effective learning product was up to us. This section presents some of the predetermined project parameters.
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