



Chapter XI

Designing and Reusing Learning Objects to Streamline WBI Development

Pam T. Northrup
University of West Florida, USA

Karen L. Rasmussen
University of West Florida, USA

David B. Dawson
University of West Florida, USA

ABSTRACT

Reusable Learning Objects (RLOs) and reusable information objects (RIOs) are tools that facilitate quick, systematic, and effective design and development of Web-based instruction. Learning objects form the basis of an online professional development program targeted toward teachers who must learn and implement new strategies and approaches for teaching in a convenient and flexible environment. Using learning objects, following the Cisco model, to develop instructional components for repurposing provides designers with the flexibility to meet different goals and instructional needs of a variety of education and training settings.

INTRODUCTION

In the past few years, the World Wide Web has emerged as a primary technology-based delivery environment affecting the way people communicate and do business; it is poised to create a paradigm shift in the way people learn (Wiley, 2001). With this trend, there are new technical and instructional demands being placed on instructional designers to get materials to the Web quickly, provide just-in-time instruction, and make modifications to instructional materials on the fly. These demands have forced instructional designers to re-examine the work processes of designing and developing high-quality instructional materials.

Current instructional design models have been touted as ‘slow and clumsy’ resulting in instruction that takes too long to get to market (Gordon & Zemke, 2001). Thirty years of evidence supports a systems approach that produces solid instructional products and, in fact, the proposition that students do learn as a result of the instruction. Although the intent of design models is to serve as a heuristic for targeting specific instructional goals to solve organizational performance problems, many designers following the ISD process re-invent the wheel every time new instruction is developed. In one branch of the military, an analysis of courses revealed that there were over 150 courses on ‘pumps’ and new ones were continuing to be developed. In many organizations, this re-design and re-development continues to occur. (Imagine how many courses on customer service exist!) Rather than re-developing the same course over and over again, it is time to flatten the knowledge silos, see what else is out there, and parcel out components of various types of instruction that can be re-purposed for differing goals and instructional needs. In the 21st century, with the rapid advances in information exchange and mass data storage, these knowledge silos no longer have to exist.

In the past five years, several technological developments have emerged that assist designers in getting content out to end users as quickly as possible. Tools such as learning management systems, content management systems, and task management systems now exist. These systems provide templates that sit on top of high-end databases enabling designers and non-designers to enter content into databases that can then be filtered back into their instructional lessons. The value of directly inputting content into databases lies in the designers’ flexibility to locate specific resources to use and re-use for multiple purposes. The problem is that unless data input follows a common standard, it may not be able to be re-purposed and shared with others.

In the late 1990s, the Advanced Distributed Learning movement began as an approach to allow the armed services to create and share their instructional

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/designing-reusing-learning-objects-streamline/23941

Related Content

Course Management Systems for Learning: Future Designs

Barbara Ross (2005). *Course Management Systems for Learning: Beyond Accidental Pedagogy* (pp. 296-306).

www.irma-international.org/chapter/course-management-systems-learning/7188

Model Driven Engineering Applied in E-Learning Development Process: Advanced Comparative Study with ROC Multi-Criteria Analysis

Rachid Dehbi (2017). *International Journal of Online Pedagogy and Course Design* (pp. 15-32).

www.irma-international.org/article/model-driven-engineering-applied-in-e-learning-development-process/164971

Barriers to and Strategies for Faculty Integration of IT

Thomas M. Brinthaupt, Maria A. Clayton and Barbara J. Draude (2011). *Instructional Design: Concepts, Methodologies, Tools and Applications* (pp. 1228-1236).

www.irma-international.org/chapter/barriers-strategies-faculty-integration/51880

Service-Learning in the Clinical Experience of Alternative Certification Teacher Candidates: Service-Learning as a Mutual Partnership

Deborah V. Mink, Susan Ramp Ridout, Gloria J. Murray, Faye Marsha G. Camahalan and Callie Petty (2022). *Research Anthology on Service Learning and Community Engagement Teaching Practices* (pp. 243-261).

www.irma-international.org/chapter/service-learning-in-the-clinical-experience-of-alternative-certification-teacher-candidates/296308

Learner Characteristics and Performance in a First-Person Online Desktop Virtual Environment

Lynna J. Ausburn (2012). *International Journal of Online Pedagogy and Course Design* (pp. 11-24).

www.irma-international.org/article/learner-characteristics-performance-first-person/65738