

# SREB - SCORE

## Professional Development

In planning for the SREB-SCORE professional development sessions the following information is important:

- Each SREB-SCORE member will be provided with one face-to-face training session.
- All professional development sessions must be completed by July 31, 2008. To the extent possible, it is requested that the sessions be offered in late winter or spring.
- Professional Development session dates will be coordinated through SREB.
  - Dates Liz Glowa will NOT be available are:  
1/25 – 1/31, 1/28, 2/4-2/6, 2/11-2/12, 2/18-2/20, 2/25, 3/3-3/19, 3/24
  - Dates Michael Anderson will NOT be available are:  
1/21 – 1/25, 1/28, 2/4-2/6, 2/11-2/12, 2/18-2/20, 2/25, 3/3-3/19, 3/24
- A maximum of 20 persons may participate in each professional development session.
- SREB-SCORE will provide all training materials for these sessions.
- Knowledge and experience of the participants selected by the SREB-SCORE state member should be consistent with information provided below.
- The host state education agency must provide the appropriate technology and a meeting location.

Detailed information about each professional development session follows:

### Option A.

#### **1. Reusable Learning Object Basics and Usage of Learning Objects Unit – ONE DAY with Optional Second Day**

This unit consists of three required modules.

Module	Estimated Time
Module: Reusable Learning Objects (RLOs) Basics	1.5 hours
Module: Retrieval and Usage of Learning Objects	3 hours
Module: Instructional Design of Learning Objects	2 hours
Total Time	6.5 hours

There are also three optional modules which would be conducted on a second day:

Module	Estimated Time
Module: Development of Learning Objects Lab	6 hours
Module: Publishing Learning Objects	1 hours
Module: Strategic Planning for Reusable Learning Object Implementation	1 hours

### Description

The three required modules of this unit provide a variety of learning experiences designed to acquaint the participants with basic information essential to understanding the basic framework essential for

using reusable learning objects. It provides them hands on experience with retrieving and using learning objects to support instruction. Participants also learn the basics of learning object instructional design so they can create learning objects to meet their instructional needs.

The three optional modules of this unit provide participants with the option of a hands-on lab for developing learning objects, publishing these objects to a LOR, and understanding the institutional change strategies an institution needs to consider when adopting the use of learning objects and a learning object repository. These modules would be conducted on a second day.

### **Audience**

The RLO Basics and Usage of Learning Objects Unit is designed for participants who are interested in learning how to use learning objects to support instruction. Due to the hands-on lab, this unit is limited to 20 participants. The ideal audience for this unit would be instructors, department chairpersons, curriculum coordinators, and online course developers.

If the institution decides to use the optional Learning Object Module, please note the appropriate audience for this module. Due to the lab format, this workshop is limited to 15 participants. The ideal audience for this workshop will be members of a content development team who work as members of a multimedia group to create digital learning. Each audience member may bring different roles and skills to the workshop: some may be graphics designers with extensive Photoshop responsibilities; some may be programmers with JavaScript (ECMAScript) or Flash ActionScript (version 2 or 3) experience; some may be audio or video producers who work in Final Cut or Premier to create media clips; some may be power users of Dreamweaver with a base knowledge of cascading style sheets and the Document Object Model.

### **Technical requirements**

The presentation portion of the unit requires a projector and Internet connection.

The lab portion requires for each participant:

- a Windows XP Intel P3 computer with at least 512 MB RAM and sound card with speakers and microphone; participants should have administrative rights to the computer for installation of software
- or a Macintosh OS 10.2 (or higher) computer with at least 1GB RAM and audio record/playback capabilities; participants should have administrative rights to the computer for installation of software
- LAN-based Internet connection (at least 1.5 Mbps)
- Office 2003 or Office 2007
- Internet Explorer 6 or 7 with the following plugins installed:
  - Flash 9
  - QuickTime 7
  - Java Runtime Engine (JRE) 5.0 or 6.0
- Firefox 1.5 or 2 with the following plugins installed:
  - Flash 9
  - QuickTime 7
  - Java Runtime Engine (JRE) 5.0 or 6.0
- All browsers should have pop-ups and cookies enabled; Internet Explorer should allow active content

<b>Topical Coverage</b>	
<b>Module One: Reusable Learning Objects Basics</b>	<b>1.5 hours</b>

A. The Economics	<ul style="list-style-type: none"> <li>• What is the value and who benefits from RLOs?</li> </ul>
B. Learning Object Repositories (LOR)	<ul style="list-style-type: none"> <li>• What is a LOR?</li> <li>• What is the Global Catalog?</li> </ul>
C. Assets and Learning Objects (LO)	<ul style="list-style-type: none"> <li>• What is a LO, asset?</li> <li>• What are the benefits of a LO approach?</li> </ul>
D. Institutional practice	<ul style="list-style-type: none"> <li>• What questions need to be addressed in implementing a RLO strategy?</li> </ul>

<b>Module Two - Retrieval and Usage of Learning Objects</b>		<b>3 hours</b>
A. Search techniques and Meta data		
B. Retrieval strategies by intent of use	<ul style="list-style-type: none"> <li>• Course enhancement strategy</li> <li>• Topic replacement strategy</li> </ul>	
C. Adaptation, adoption, context	<ul style="list-style-type: none"> <li>• Intellectual Property and Use</li> <li>• Adding context and content</li> </ul>	
D. Matching LOs to identified needs	<ul style="list-style-type: none"> <li>• Pedagogical approach</li> <li>• Learning style</li> <li>• Conceptual level</li> </ul>	
E. Use of Learning Objects	<ul style="list-style-type: none"> <li>• Developing online courses vs. topics</li> <li>• Using LOs in blended and F2F instruction</li> <li>• Other uses of LOs (such as websites)</li> </ul>	

<b>Module Three: Designing Learning Objects</b>		<b>2 hours</b>
A. Paradoxes in Learning Object Development	<ul style="list-style-type: none"> <li>• Context and reusability</li> <li>• Cognitive and constructive</li> </ul>	
B. Types of Learning Objects	<ul style="list-style-type: none"> <li>• Content</li> <li>• Context</li> <li>• Assessment</li> <li>• Communicative</li> </ul>	
C. Instructional Design	<ul style="list-style-type: none"> <li>• Assets</li> <li>• Learning objects</li> <li>• Courses</li> <li>• Outcomes</li> </ul>	
D. Sequencing	<ul style="list-style-type: none"> <li>• Linear versus scenario</li> <li>• Scaffolding</li> </ul>	
E. Intellectual property		
F. Quality standards	<ul style="list-style-type: none"> <li>• Design</li> <li>• Accessibility</li> <li>• Technology</li> <li>• Metadata</li> </ul>	

**Optional Modules- Second Day**

<b>Module: Development of Learning Objects Lab</b>		<b>6 hours</b>
A. The Development Process	<ul style="list-style-type: none"> <li>• Analyze</li> <li>• Design tasks</li> <li>• Sequence</li> <li>• Design content</li> <li>• Produce</li> </ul>	
B. Accessibility	<ul style="list-style-type: none"> <li>• Design</li> <li>• Navigation</li> <li>• Media</li> </ul>	
C. Tools and templates		

<b>Lab</b>
<p>Preparation: We will provide users with a collection of the following assets (this eliminates users having to create everything from scratch and thus speeds lab time).</p> <ul style="list-style-type: none"> <li>• A Word document covering the topic, including a few images and links</li> <li>• 2 PowerPoint slides that cover a graphic-intensive aspect of the topic</li> <li>• A Notepad file of formative test items</li> <li>• An NROC movie clip and transcript</li> <li>• A set of template files (page navigation, CSS, JavaScript, XML-driven Flash self-test, RSS feed)</li> </ul>
<p>A. Build (components)</p> <ul style="list-style-type: none"> <li>• Task 1: Ask users to deconstruct the Word document into pedagogical pieces (reinforces deconstruction drive; focuses the teacher/designer at the center of LO development; emphasizes screen-based chunking and delivery; forces construction of learning objectives).             <ul style="list-style-type: none"> <li>○ Learning objective</li> <li>○ Problem/case study/story</li> <li>○ Presentation</li> <li>○ Summary</li> </ul> </li> <li>• Task 2: Ask users to publish PowerPoint slides as images (introduces concept of “file type” manipulation).</li> <li>• Task 3: Ask users to record brief audio files for PowerPoint narration and transcribe those into Word (expands learning style coverage; forces recognition of 508 accessibility issues).</li> </ul> <p>B. Design (style)</p> <ul style="list-style-type: none"> <li>• Task 4: Ask users to create the XML files for the self-test.</li> </ul> <p>C. Sequence (assemble)</p> <ul style="list-style-type: none"> <li>• Task 5: Ask users to assemble assets in the template files (practice with sequencing; practice with assembly; practice with templates).</li> <li>• Task 6: Ask users to change the CSS (shows separation of design and content).</li> </ul> <p>D. Describe (meta-tag)</p> <ul style="list-style-type: none"> <li>• Task 7: Ask users to write the metadata (emphasizes discoverability for reuse and LO evaluation).</li> </ul>

<b>Module: Publishing Learning Objects to LORs</b>	<b>1 hour</b>
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A. Tools	
B. Standards and review	<ul style="list-style-type: none"> <li>• Institutional requirements</li> <li>• SCORE requirements</li> </ul>
C. Metadata	<ul style="list-style-type: none"> <li>• Minimal requirements</li> <li>• Institutional needs</li> <li>• Third party</li> </ul>
D. Workflow	

<b>Module: Changes in Institutional Practices</b>		<b>1 hour</b>
A. People		
B. Policies		

## Option B.

### 1. Reusable Learning Object Basics & Adopting a Reusable Learning Object Strategy – ONE DAY

#### Unit Overview

This unit consists of five required modules.

Module	Estimated Time
Module: Reusable Learning Objects (RLOs) Basics	1 hours
Module: Retrieval and Usage of Learning Objects	.5 hour
Module: Instructional Design and Development of Learning Objects	1 hour
Module: Publishing Learning Objects	1 hour
Module: Strategic Planning for RLO Implementation	3 hours
Total Hours	6.5 hours

#### Reusable Learning Object Basics and Adopting a Reusable Learning Object Strategy Unit Overview

The five required modules of this unit provide a variety of learning experiences designed to acquaint the participants with basic information essential to understanding the basic framework essential for adapting and using a reusable learning object repository and learning object strategy and a guided discussion of the change strategies an institution needs to consider.

#### Audience

The RLO Basics and Adopting a RLO Strategy Unit is designed for participants who are interested in implementing a reusable learning object repository and learning object strategy to increase the usage of learning objects to support instruction. The ideal audience for this unit would be a team of administrators, instructors, and online course developers.

#### Technical requirements

The presentation portion of the unit requires a projector and Internet connection.

Topical Coverage	
<b>Module One: Reusable Learning Objects Basics</b>	<b>1 hour</b>
A. The Economics	<ul style="list-style-type: none"> <li>What is the value and who benefits from RLOs?</li> </ul>
B. Assets and Learning Objects (LO)	<ul style="list-style-type: none"> <li>What is a LO, asset?</li> <li>What are the benefits of a LO approach?</li> </ul>
C. Institutional practice	<ul style="list-style-type: none"> <li>What questions need to be addressed in implementing a RLO strategy?</li> </ul>

<b>Module Two - Retrieval and Usage of Learning Objects</b>	<b>.5 hour</b>
A. Search techniques and Metadata	
B. Retrieval strategies by intent	<ul style="list-style-type: none"> <li>Course enhancement strategy</li> </ul>

of use	<ul style="list-style-type: none"> <li>• Topic replacement strategy</li> </ul>
C. Adaptation, adoption, context	<ul style="list-style-type: none"> <li>• Adding context and content</li> <li>• Intellectual Property and Use</li> </ul>
D. Use of Learning Objects	<ul style="list-style-type: none"> <li>• Developing online courses vs. topics</li> <li>• Using LOs in blended and F2F instruction</li> <li>• Other uses of LOs (such as websites)</li> </ul>

<b>Module Three: Instructional Design and Development of Learning Objects 1 hour</b>	
A. Paradoxes in Learning Object Development	<ul style="list-style-type: none"> <li>• Context and reusability</li> <li>• Cognitive and constructive</li> </ul>
B. Types of Learning Objects	<ul style="list-style-type: none"> <li>• Content</li> <li>• Context</li> <li>• Assessment</li> <li>• Communicative</li> </ul>
C. Intellectual property	
D. Quality standards	<ul style="list-style-type: none"> <li>• Design</li> <li>• Accessibility</li> <li>• Technology</li> <li>• Metadata</li> </ul>

<b>Module Four: Publishing Learning Objects to LORs 1 hour</b>	
A. Tools	
B. Standards and review	<ul style="list-style-type: none"> <li>• Institutional requirements</li> <li>• SCORE requirements</li> <li>•</li> </ul>
C. Metadata	<ul style="list-style-type: none"> <li>• Minimal requirements</li> <li>• Institutional needs</li> <li>• Third party</li> </ul>
D. Workflow	

<b>Module Five: Changes in Institutional Practices 3 hours</b>	
A. People	
B. Policies	

**Option C.**

## **Instructional Design and Development of Learning Objects Unit – TWO DAYS**

### **Unit Overview**

This unit consists of three required modules.

Module	Estimated Time
Reusable Learning Objects Basics (RLOs)	1.5 hours
Retrieval and Usage of Learning Objects	2 hours
Instructional Design and Development of Learning Objects	3 hours
Development of Learning Objects Lab	5 hours
Publishing Learning Objects	1 hour
Total Time	12.5 hours

There is also an optional module:

Module	Estimated Time
Strategic Planning for RLO Implementation	1 hour

### **Description**

The five required modules of this unit provide a variety of learning experiences, including a lab, designed to provide the participants with a framework for learning object concepts and hands-on experience with retrieving and using learning objects to support instruction. The primary emphasis is on the instructional design and development of learning objects with the practical objective of producing at least one object by the end of the unit. Coverage of publishing learning objects to a repository is included to insure that developers understand the end goal of content reuse.

The optional module of this unit provides participants with the option of understanding the institutional change strategies an institution needs to consider when adopting the use of learning objects and a learning object repository.

### **Audience**

Due to the inclusion of a hands-on lab, this workshop is limited to 15 participants. The ideal audience for this workshop will be members of a content development team who work as members of a multimedia group to create digital learning. Each audience member may bring different roles and skills to the workshop: some may be graphic designers with extensive Photoshop responsibilities; some may be programmers with JavaScript (ECMAScript) or Flash ActionScript (version 2 or 3) experience; some may be audio or video producers who work in Final Cut or Premier to create media clips; some may be power users of Dreamweaver with a base knowledge of cascading style sheets and the Document Object Model.

### **Technical Requirements**

The presentation portion of the unit requires a projector and Internet connection.

The lab portion requires for each participant:

- a Windows XP Intel P3 computer with at least 512 MB RAM and sound card with speakers and microphone; participants should have administrative rights to the computer for installation of software

- or a Macintosh OS 10.2 (or higher) computer with at least 1GB RAM and audio record/playback capabilities; participants should have administrative rights to the computer for installation of software
- LAN-based Internet connection (at least 1.5 Mbps)
- Office 2003 or Office 2007
- Internet Explorer 6 or 7 with the following plugins installed:
  - Flash 9
  - QuickTime 7
  - Java Runtime Engine (JRE) 5.0 or 6.0
- Firefox 1.5 or 2 with the following plugins installed:
  - Flash 9
  - QuickTime 7
  - Java Runtime Engine (JRE) 5.0 or 6.0
- All browsers should have pop-ups and cookies enabled; Internet Explorer should allow active content

<b>Topical Coverage</b>	
<b>Module One: Reusable Learning Objects Basics</b>	
<b>1.5 hours</b>	
A. The Economics	<ul style="list-style-type: none"> <li>• What is the value and who benefits from RLOs?</li> </ul>
B. Learning Object Repositories (LOR)	<ul style="list-style-type: none"> <li>• What is a LOR?</li> <li>• What is the Global Catalog?</li> </ul>
C. Assets and Learning Objects (LO)	<ul style="list-style-type: none"> <li>• What is a LO, asset?</li> <li>• What are the benefits of a LO approach?</li> </ul>
D. Institutional practice	<ul style="list-style-type: none"> <li>• What questions need to be addressed in implementing a RLO strategy?</li> </ul>

<b>Module Two - Retrieval and Usage of Learning Objects</b>	
<b>2 hours</b>	
A. Search techniques	
B. Retrieval strategies by intent of use	<ul style="list-style-type: none"> <li>• Course enhancement strategy</li> <li>• Topic replacement strategy</li> </ul>
C. Adaptation, adoption, context	<ul style="list-style-type: none"> <li>• Intellectual Property and Use</li> <li>• Adding context and content</li> </ul>
D. Matching LOs to identified needs	<ul style="list-style-type: none"> <li>• Pedagogical approach</li> <li>• Learning style</li> <li>• Conceptual level</li> </ul>
E. Use of Learning Objects	<ul style="list-style-type: none"> <li>• Developing online courses vs. topics</li> <li>• Using LOs in blended and F2F instruction</li> <li>• Other uses of LOs (such as websites)</li> </ul>

<b>Module Three: Designing and Developing Learning Objects</b>	
<b>8 hours</b>	
A. Paradoxes in Learning Object Development	<ul style="list-style-type: none"> <li>• Context and reusability</li> <li>• Cognitive and constructive</li> </ul>
B. Types of Learning Objects	<ul style="list-style-type: none"> <li>• Content</li> </ul>

	<ul style="list-style-type: none"> <li>• Context</li> <li>• Assessment</li> <li>• Communicative</li> </ul>
C. The Development Process	<ul style="list-style-type: none"> <li>• Analyze</li> <li>• Design tasks</li> <li>• Sequence</li> <li>• Design content</li> <li>• Produce</li> </ul>
D. Instructional Design	<ul style="list-style-type: none"> <li>• Assets</li> <li>• Learning objects</li> <li>• Courses</li> <li>• Outcomes</li> </ul>
E. Sequencing	<ul style="list-style-type: none"> <li>• Linear versus scenario</li> <li>• Scaffolding</li> </ul>
F. Accessibility	<ul style="list-style-type: none"> <li>• Design</li> <li>• Navigation</li> <li>• Media</li> </ul>
G. Intellectual property	
H. Quality standards	<ul style="list-style-type: none"> <li>• Design</li> <li>• Accessibility</li> <li>• Technology</li> <li>• Metadata</li> </ul>
I. Tools and templates	

<b>Lab</b>
<p>Preparation: We will provide users with a collection of the following assets (this eliminates users having to create everything from scratch and thus speeds lab time).</p> <ul style="list-style-type: none"> <li>• A Word document covering the topic, including a few images and links</li> <li>• 2 PowerPoint slides that cover a graphic-intensive aspect of the topic</li> <li>• A Notepad file of formative test items</li> <li>• An NROC movie clip and transcript</li> <li>• A set of template files (page navigation, CSS, JavaScript, XML-driven Flash self-test, RSS feed)</li> </ul>

- A. Build (components)
  - Task 1: Ask users to deconstruct the Word document into pedagogical pieces (reinforces deconstruction drive; focuses the teacher/designer at the center of LO development; emphasizes screen-based chunking and delivery; forces construction of learning objectives).
    - Learning objective
    - Problem/case study/story
    - Presentation
    - Summary
  - Task 2: Ask users to publish PowerPoint slides as images (introduces concept of “file type” manipulation).
  - Task 3: Ask users to record brief audio files for PowerPoint narration and transcribe those into Word (expands learning style coverage; forces recognition of 508 accessibility issues).
- B. Design (style)
  - Task 4: Ask users to create the XML files for the self-test.
- C. Sequence (assemble)
  - Task 5: Ask users to assemble assets in the template files (practice with sequencing; practice with assembly; practice with templates).
  - Task 6: Ask users to change the CSS (shows separation of design and content).
- D. Describe (meta-tag)
  - Task 7: Ask users to write the metadata (emphasizes discoverability for reuse and LO evaluation).

<b>Module Four: Publishing Learning Objects to LORs</b>		<b>1 hour</b>
A. Tools		
B. Standards and review	<ul style="list-style-type: none"> <li>• Institutional requirements</li> <li>• SCORE requirements</li> </ul>	
C. Metadata	<ul style="list-style-type: none"> <li>• Minimal requirements</li> <li>• Institutional needs</li> <li>• Third party</li> </ul>	
D. Workflow		