



## Developing MEDBIQ-SCORM Content in Public Health

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# Outline

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- When should I consider developing MEDBIQ-SCORM content?
- What do I need to consider before beginning?
- What tools are available to help?
- Where can I go to learn more?

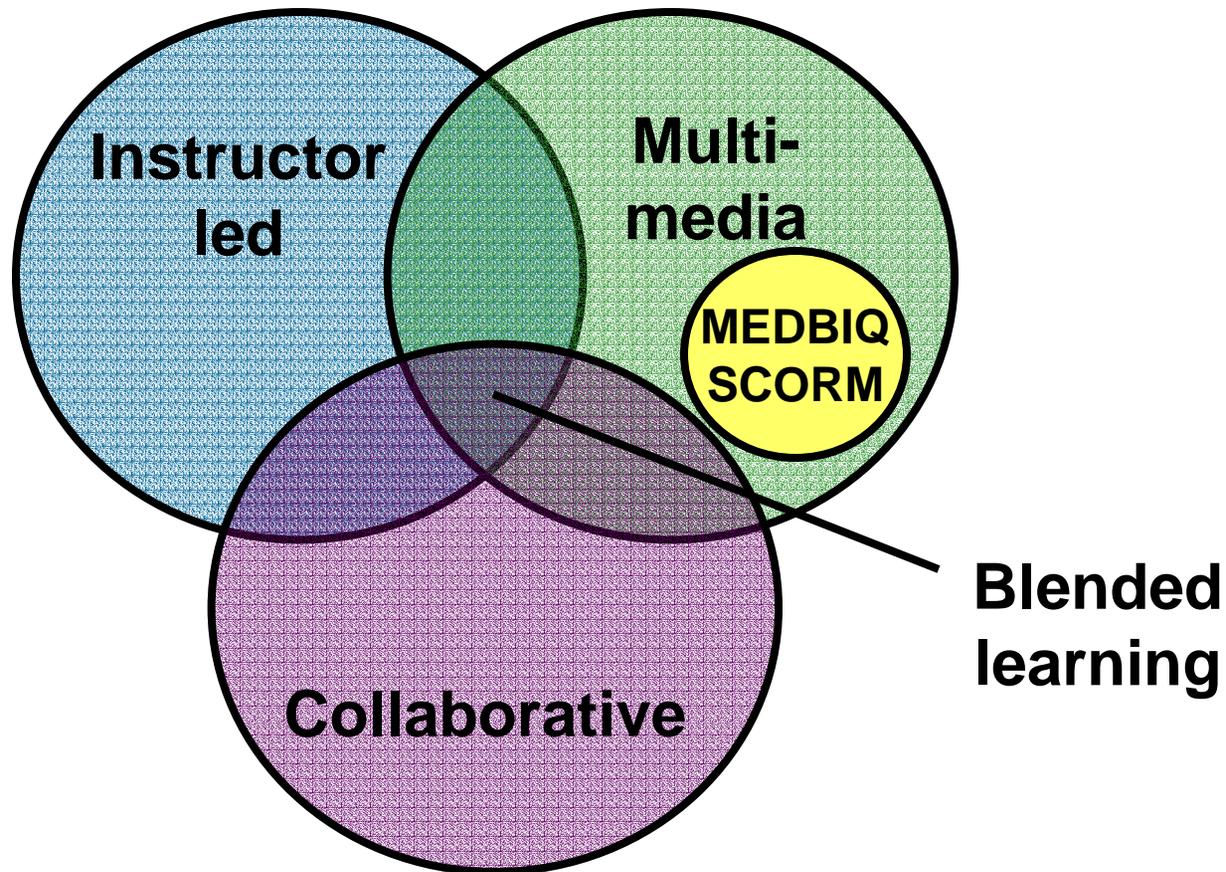
## Meet Anne

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- A state public health practitioner
- Needs to train local ph departments on epidemiology
- Recent *E. coli* outbreak
- Learners distributed across the state
- Demanding schedule



# SCORM in the Context of Learning



## Should Anne Consider Developing MEDBIQ-SCORM Content?

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- Do learner accomplishments need to be tracked?
- Could future development projects benefit from reusing the epidemiology content?
- Does she want to share the content with other organizations?
- Does she want to track healthcare specific information, like CE credits?

**YES!**

## Before Anne begins...

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- Assemble the development team
  - Subject matter expert
  - Graphic designer
  - Instructional designer
  - Project manager
  - Programmer
- Think about what parts may be reused
- Consider how online learning fits into educational strategy
- Look at existing technical infrastructure
  - Compliant learning management system?
  - Compliant authoring tools?

# What Parts Can Be Reused?

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- Epidemiology of E. Coli
  - Introduction to Epidemiology of E. Coli
  - Public Health Surveillance of E. Coli
  - Investigating an Outbreak of E. Coli
    - Recognizing a Potential E. Coli Outbreak
      - Uncovering E. Coli Outbreaks
      - E. Coli Case Study
      - Establishing the Existence of an E. Coli Outbreak
    - Preparing for an Investigation
    - Evaluating Hypotheses

# What Parts Can Be Reused?

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- Epidemiology
  - Introduction to Epidemiology
  - Public Health Surveillance
  - Investigating an Outbreak
    - Recognizing a Potential Outbreak
      - Uncovering outbreaks
      - Case Study
      - Establishing the Existence of an Outbreak
    - Preparing for an Investigation
    - Evaluating Hypotheses

## Two Primary Considerations for Size

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- Reusability
  - Smaller pieces are more likely to be reusable than larger ones
  - Smaller pieces mean more sequencing and more interaction with the LMS for the learner
- Tracking
  - A SCO is the smallest item tracked in SCORM
  - If you don't need detailed information about the learner's performance, your SCOs can be bigger



## Tools That Can Help

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- Learning Management System
  - Supports administrative tasks such as registration, scheduling, and learner tracking
  - Eg: Docent, Saba, Thing
- Learning Content Management System
  - Stores, manages and provides access to pieces of content used in e-learning
  - Eg: Outstart, Giunti

## More Tools That Can Help

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- Virtual Learning Environments
  - Supports instructor-led online learning
  - Eg: Blackboard, WebCT, Centra
- Authoring Tools
  - Supports development of web-based content
  - Eg: Dreamweaver, Flash
- Templates
  - Provide a standard layout, look and feel, navigation, and method of tracking learners
  - Can be HTML, Flash, or other format

# Policies and Procedures

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- Style Guide should include
  - Definitions of roles/responsibilities
  - What you will/won't do
  - Acceptable layouts/interfaces/file types
  - Standard file names & conventions
  - Version/revision tracking policies
  - Metadata field requirements
  - Standardized design and development tools



- Objects
- Courses
- Modules
- Learning Objects
- Topics
- Groups
- Assessment Objects
- Assessment Sections
- Survey Objects
- Survey Sections
- Reference Objects
- Templates
- Assessment
- Extended
- Interactive
- Rich Media
- Survey
- Textual

**Development TreeView**

Course

None

- Cardiopulmonary Bypass
- Challenger Burn Care
- Challenger CardioPulmonary Review
- Epidemiology**
  - Introduction to Epidemiology
  - Public Health Surveillance
  - Investigating an Outbreak
- Junk
- Respiratory Assessment
- Tetralogy of Fallot

**Parent TreeView**

- Epidemiology

**Courses**

General Content Data History

general

Jump to ...

title:

catalog:

entry:

- Epidemiology**
  - Introduction to Epidemiology
  - Public Health Surveillance
  - Investigating an Outbreak

structure:

aggregationlevel:

lifecycle

Jump to ...

version:

status:

role:   
publisher  
unknown

- Objects
- Courses
- Modules
- Learning Objects
- Topics
- Groups
- Assessment Objects
- Assessment Sections
- Survey Objects
- Survey Sections
- Reference Objects
- Templates
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Development TreeView

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Parent TreeView

- Epidemiology

general

title:

catalog:

entry:

language:

description:

keyword:

coverage:

structure:

aggregationlevel:

version:

status:

role:   
publisher  
unknown



## Epidemiology

### Recognizing a Potential Outbreak

1 OF 3

[Home](#) [Glossary](#) [Help](#) [Discussion](#) [Generate PDA](#)

#### ► **Uncovering Outbreaks** ✓

[Case Study](#)[Establishing the Existence of an Outbreak](#)

#### **Uncovering Outbreaks**

Outbreaks may be detected when routine, timely analysis of surveillance data reveals an increase in reported cases or an unusual clustering of cases. In a health department, we may detect increases in or unusual patterns of disease from the weekly tabulations of case reports by time and place or from the examination of the exposure information on the case reports themselves. Nonetheless, most outbreaks come to the attention of health authorities because an alert clinician is concerned enough to call the health department.



Uncovering  
Outbreaks ✓

▶ **Case Study** ✓

Establishing  
the Existence  
of an  
Outbreak

## Case Study: Esionophilia-Myalgia

In 1989, a physician in New Mexico contacted a colleague in Minnesota regarding a patient with debilitating muscle pain. The two realized that they had seen three women with this unusual condition, and that all had taken L-tryptophan, a sleep-aid health food supplement. The physician promptly called the New Mexico State Health and Environment Department, which started an investigation that led to the national recall of L-tryptophan.



## Summary

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- Consider if target audience and learning gap suitable for MEDBIQ-SCORM
- Put e-learning within context
- Assemble development team
- Think about reuse and tracking
- Consider what tools will support development
- Have a style guide that includes metadata requirements

## Learn More!

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- MedBiquitous Website  
<http://www.medbiq.org/>
- Nina Pasini's presentation
- ADL Website  
<http://www.adlnet.org/>
- Learning Systems Architecture Laboratory  
<http://www.lsal.cmu.edu/>
- MELD: MedBiquitous E-Learning Discourse  
Coming Mid June on medbiq.org!





**BRINGING GREAT MINDS TOGETHER**  
to Improve Online Medical Education



SEARCH

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- Strategic Reports
- Scientific Reports
- Theoretical Reports

## What's New

### What is MELD?

MELD, the MedBiquitous E-Learning Discourse, is an online community of practice that will allow a diverse set of professionals involved in medical education to solve real-world problems in the delivery and development of online medical education by sharing knowledge and developing best practices. [More about MELD.](#)

### What's the Pathophysiology of E-learning in the Medical Community

Greg Long, Chief Learning Architect of Accelera, asserts that most online medical e-learning is like an ugly baby. Find out why only authors can love their e-learning and what MELD (and you) can do to improve online medical education and ultimately improve patient care. [Let the discourse begin.](#)

### MedBiquitous Hosts Leaders in Medical Education

On May 10th, the leaders in medical education, representing over forty organizations, will converge in Baltimore for the MedBiquitous Annual Meeting. See the [agenda](#) for more information (pdf).

### E-babble?

ADL, ACCME, ACGME, CME, GME, SACME, MESH, MELD, CETIS and SCORM... What do they all mean? Refer to our medical e-learning [glossary](#) so we can all speak the same language.