



**CETL**  
Reusable  
Learning  
Objects

Centre for Excellence in Teaching & Learning  
in Reusable Learning Objects

[www.rlo-cetl.ac.uk](http://www.rlo-cetl.ac.uk)

# Effective design for technology enhanced learning

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*CUHK, Hong Kong Oct 17 2008*





We live in a world characterised by dramatic waves of new technology that potentially offer rich opportunities for enhancing the learning experience of our students.

The technologies themselves, however, will not improve teaching and learning.

The key challenge is how to use these technologies effectively.

How can we better *design* learning experience using the resources and tools available?

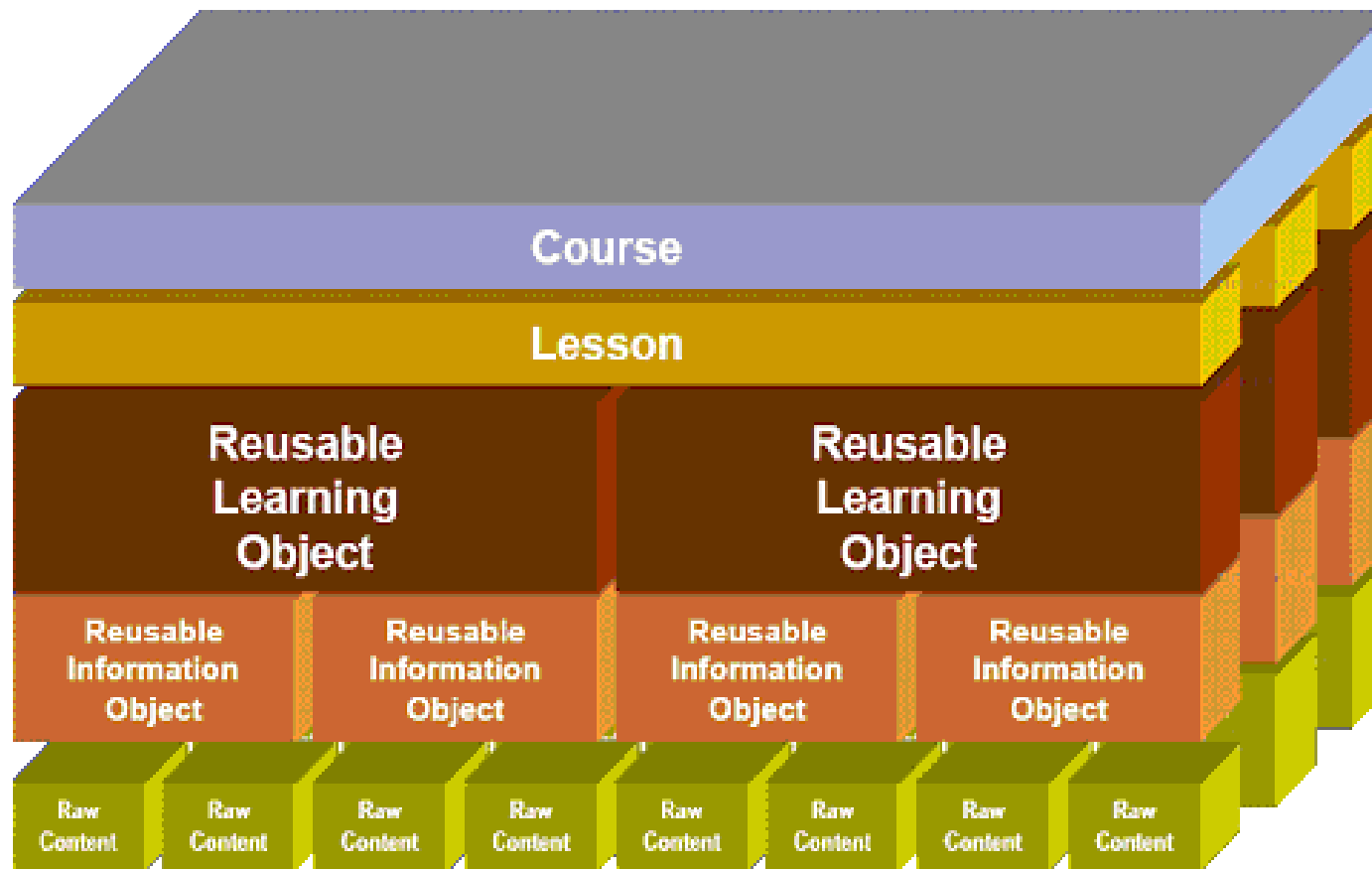
There are different levels at which we can design and implement educational change.

These can range from learning objects focused on discrete learning goals, through to changing lesson plans, or transforming whole courses.

The talk will move from the learning object level to how on to change a whole course using a blended learning approach. Throughout the talk, the approach will be to describe and illustrate a range of principles and techniques. The talk will link these principles and illustrations to 'Agile' methods for developing rich, technology based learning.

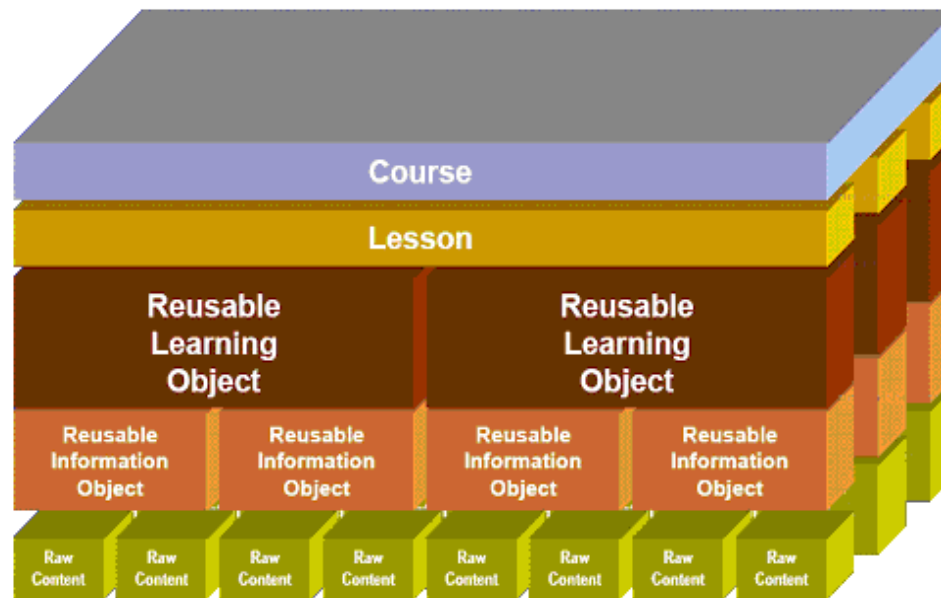
What is your goal?

Choose the size and nature of the intervention to meet the target that you set.



**Different levels at which design for learning can be focused (Autodesk Model)**

# Reusable learning objects







# CETL

Reusable Learning Objects

www.rlo-cetl.ac.uk



## CENTRE FOR EXCELLENCE IN TEACHING & LEARNING IN REUSABLE LEARNING OBJECTS



CETL Reusable Learning Objects  
School of Nursing and Academic Division of Midwifery

RLO: Acids, Alkalis & Bases: An Introduction

**Acidic Solutions**

If extra  $H^+$  ions are added to the beaker, what will happen to the solution?

Drag the bars of the bar chart to indicate what will happen to the relative concentrations of  $H^+$  and  $OH^-$ .

Any solution with more  $H^+$  than  $OH^-$  is said to contain **free**  $H^+$  ions and is **acidic**.

...ale, drag the arrow to indicate the ids.

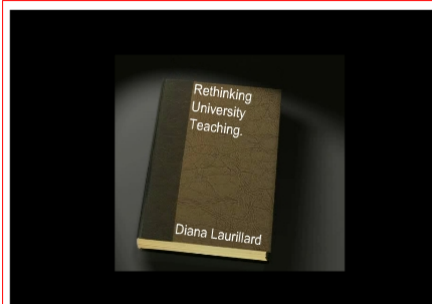
n of an **acid** is: "A substance with free is ( $H^+$ ) in solution."

i pH < (less than) 7.

Feedback | Resources

**Acidic Solutions**

Prev Next



1 The Book is a reference for my essay or report

### Quoting from a Book

This is how you take a reference from a BOOK. Press the Show button a number of times to go through the steps

SHOW

# CETL for Reusable Learning Objects

- Started in April 2005 with £3.3 million funding from HEFCE for the period 2005-2010
- Partners: London Metropolitan University, University of Cambridge, University of Nottingham
- Develop reusable learning objects (RLOs)
  - *with a strong pedagogical focus*
- Use and evaluate these RLOs with substantial student cohorts
- Extensive staff development and dissemination programme
- ***Advance the conceptual basis for RLOs***

All the examples used can be accessed  
at the Web site of the Centre for  
Excellence in Teaching and Learning  
(CETL) in Reusable Learning Objects

<http://www.rlo-cetl.ac.uk>

# Some design principles

- **Appropriate and effective use of media**
  - use the natural blend of media to suit the learning task
  - visualization, including dynamic visualization
- **Interactivity**
  - interaction for learning
- **User control**

# Effective media mix: visualization

The screenshot shows a Windows Internet Explorer browser window displaying a page titled "Muscle Mechanics : Load Arm". The page content includes:

- A side-view illustration of a man in a purple shirt and grey shorts holding a barbell with weights. A red line highlights the arm, and a vertical line indicates the load arm.
- Text: "The length of the load arm is measured as the perpendicular distance from the fulcrum to the centre or mass of the load."
- Text: "Use the slider to reveal the load arm:" followed by a vertical slider control.
- Text: "Q1. Does the perpendicular distance of the load from the fulcrum change during flexion and extension?"
- Two radio button options: "YES" and "NO".
- A large empty rectangular box for the user's answer.
- Navigation buttons: "Back" and "Next".

The browser's address bar shows the URL: [http://www.rlo-cetl.ac.uk:8080/rlo/muscle\\_mechanics\\_load\\_arm/index.html](http://www.rlo-cetl.ac.uk:8080/rlo/muscle_mechanics_load_arm/index.html). The Windows taskbar at the bottom shows the Start button and several open applications including Windows Explorer, Internet Explorer, Microsoft Office, and a news browser window.

Dynamic visualization of  
muscle action


# Effective media mix: language learning

RLO: Listening - meeting and describing someone

*Ecoute: Qu'il est beau!*

Watch two friends in conversation and select either True or False to the statements below.

	Vrai	Faux
1. Viviane a un nouveau petit ami	<input type="radio"/>	<input type="radio"/>
2. Ils se sont rencontrés au travail	<input type="radio"/>	<input type="radio"/>
3. Il n'a pas beaucoup de cheveux	<input type="radio"/>	<input type="radio"/>
4. Il a les cheveux châtain	<input type="radio"/>	<input type="radio"/>
5. Il a les yeux gris	<input type="radio"/>	<input type="radio"/>
6. Il n'aime pas trop faire du sport	<input type="radio"/>	<input type="radio"/>
7. Il est beau, mignon et sympa	<input type="radio"/>	<input type="radio"/>
8. Audrey et son ami se voient toujours	<input type="radio"/>	<input type="radio"/>
9. Son travail est important	<input type="radio"/>	<input type="radio"/>
10. L'ami voyage beaucoup pour le travail	<input type="radio"/>	<input type="radio"/>
11. Ils vont partir en voyage bientôt	<input type="radio"/>	<input type="radio"/>
12. Audrey est assez malheureuse	<input type="radio"/>	<input type="radio"/>



**Vocab**      Correct answers will be shown here:      **Transcript**

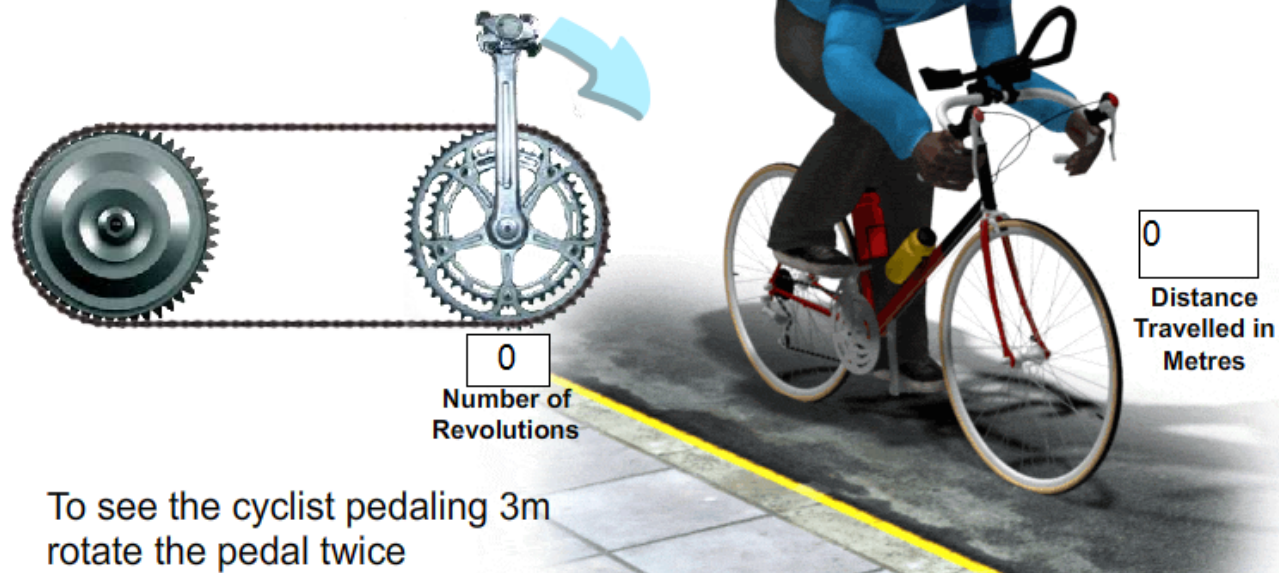
**Submit**            **Reset**

Language games

# Effective use of media mix

## Cycle Ergometer : Revolutions

FORMULA: One revolution of the crank corresponds to 1 revolution of the cyclists wheel – how far will the bike travel?



To see the cyclist pedaling 3m  
rotate the pedal twice

# Games to encourage engagement



CETL

Reusable  
Learning  
Objects

RLO: Reading - Quiz: millionaire

## *Le jeu du millionnaire*

Read the question in the green box and then click on one of the four choices to select the correct answer. Once you have chosen remember to press the **Submit** button. There are **10** questions in total. Remember this is only a **game** and you will not really win 1 000 000 euros!

### Qui veut gagner des millions?

#### Question 2

**Bravo!**

**Pour 4000 euros -**

C'est le village \_\_\_\_ je vais passer mes week-ends.

qui

que

qu'

où

1 000 000

500 000

250 000

125 000

64 000

32 000

16 000

8 000

**4 000**

1 000



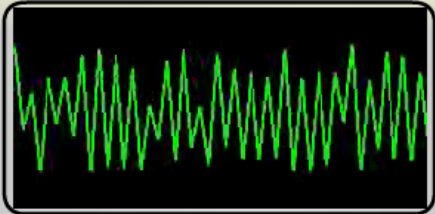
# Interactivity

**MULTIPLE INTELLIGENCE OPEN ACCESS - RHYTHM**

PLEASE READ THIS INFORMATION FIRST:

Howard Gardner's theory of multiple intelligences identifies musical intelligence as being demonstrated by both the ability to create music and the ability to understand music.

Four key operatives of musical intelligence have been



**Sound Playing**


Listen to this track:

Now, let's look at your rhythmic abilities. Can you tell us what the beat of this song is? If so select it here and then press the next page button:

If not, PRESS NEXT and we'll help you out:

Interacting with music for non  
musicians

# Simulation and engagement


 School of Nursing and Academic Division of Midwifery

**RLO: Determining the clinical importance of trial results**

[Introduction](#) [Scenario](#) [Search](#) [Data](#) [ARR & NNT](#) [Further info](#) [Explanations](#) [Summary](#) [Feedback](#) [Resources](#)

**Scenario**

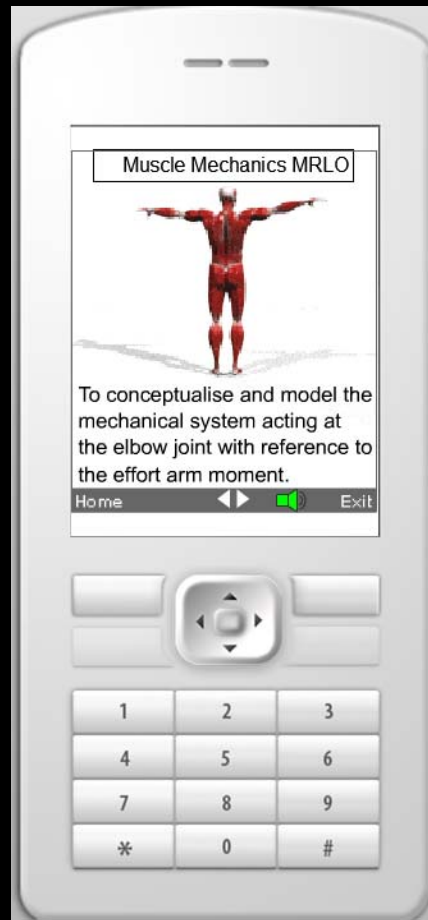
Consider the following scenario.



[Previous](#) [Next](#)

Creating a scenario for the learner

# Delivery on mobile phones





### RLO-CETL - The CETL for Reusable Learning Objects

#### Welcome

The RLO-CETL is the Centre for Excellence for the design, development and use of **learning objects**. The partner institutions are London Metropolitan University, the University of Cambridge and the University of Nottingham.

The CETL **develops**, **shares** and **evaluates** learning objects and leads on innovation in pedagogical design.

This Web site gives access to a rich set of learning objects, tools and information developed by RLO-CETL. [Read more](#)

#### Quick links

- Reusable learning objects (RLOs)
- Generative learning objects (GLOs)
- M-Learning
- Development framework
- Evaluation
- Publications



#### Featured RLOs

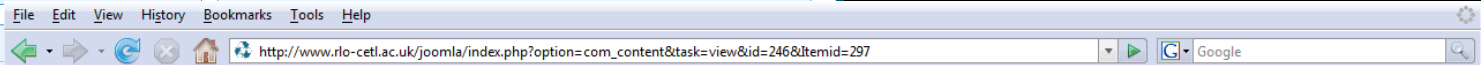
##### Determining the importance of trial results

This RLO demonstrates how to interpret and use clinical trial data in practice. [See RLO](#)

#### Latest news

- [Tom Boyle invited to speak at symposium in Colon](#)
- [Book chapter proposal accepted](#)
- [Wolfson Reward Programme held July 7-9 2008 in](#)
- [GLO Maker Version 1 released for use](#)
- [Magazine article on TVU reuse of RLO-CETL learn](#)

Click on the headline for details and for other news ite



- RLOs
- Completed RLOs**
- RLO development
- GLOs
- M-Learning
- Community
- Development framework
- Workshops
- Evaluation
- Related projects

#### Completed RLOs

Learning objects in our repository available for use, listed by subject area. All the RLOs are free for use and repurposing for educational, non-commercial purposes. When you view an object, note that the panel on the left generated by the repository can be dragged sideways to view the learning object full screen.

- > [Business Studies](#)
- > [Clinical Skills](#)
- > [Ethics](#)
- > [Evidence-based Practice for Health Sciences](#)
- > [Foundation Sciences](#)
- > [French](#)
- > [Human Life Sciences](#)
- > [Inter-professional Learning](#)
- > [Maths](#)
- > [Pharmacology](#)
- > [Sports Science](#)
- > [Statistics](#)
- > [Study Skills](#)



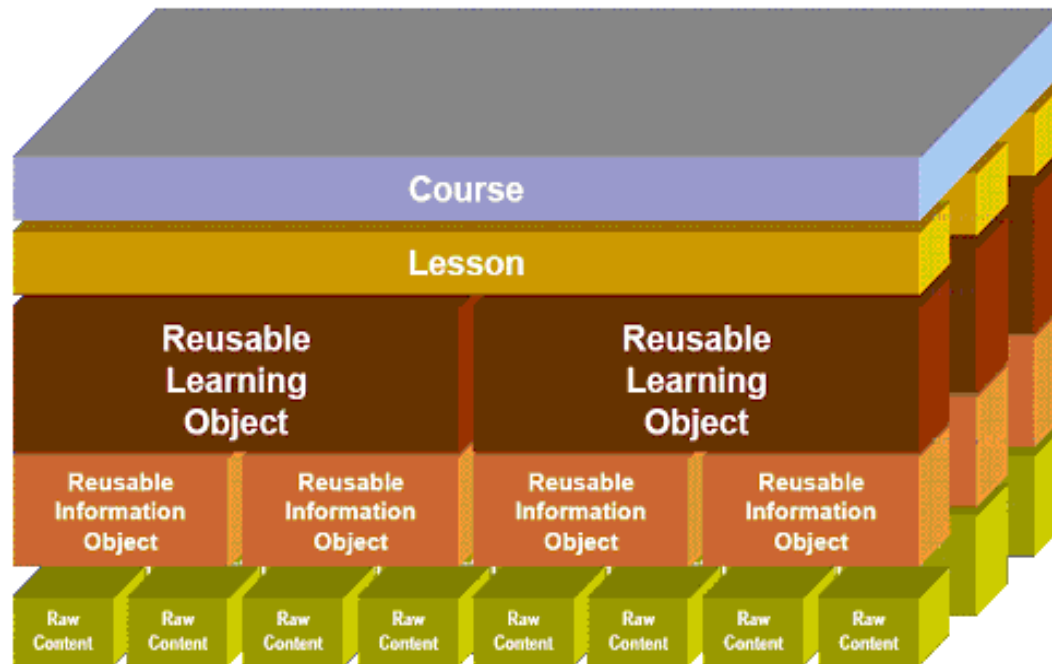
#### Business Studies

<a href="#">Employability</a>	This RLO asks the student to complete an online questionnaire that asks about their current skill base. The grid is then completed and builds up a profile of an individual's strengths and weaknesses, which can be printed out as a graph. The final section suggests strategies to develop skills, and gives concrete examples that a potential employer may find useful.	London Met
<a href="#">Imagineering</a>	This RLO was designed to support an introductory lecture on the subject of Imagineering, a core concept within the curriculum for Events Marketing Management; but could be easily used by anyone who has an interest in marketing theory, or art, design or product design. The interesting aspect of this RLO is the introduction of a 'boiled sweet' (use Strawberry & Cream flavour Campino) that students are asked to interact with. The objective of the RLO is to encourage students to view everyday activities in a different way in order to enhance their perception of the value of the activity. In this way, students can gain a greater understanding of how a new economy can be created through an experience.	London Met
<a href="#">Multiple intelligence</a>	Howard Gardner's theory of multiple intelligences identifies musical intelligence as being demonstrated by both the ability to create music and the ability to understand music. Four key operatives of musical intelligence have been identified by Gardner: rhythm, timbre, pitch, and melody/harmony. The learning object is designed to focus individually on each of those functions of musical intelligence and the ability to understand music.	London Met

Web site of the Centre for Excellence in  
Teaching and Learning (CETL) in  
Reusable Learning objects

<http://www.rlo-cetl.ac.uk>

# Changes at the lesson level



Repositories of  
lesson plans and  
supporting materials

‘Executable’  
lesson/activity  
plan

## Phoebe (Oxford University)

- Online planning tool that will
- Offer users both flexible and guided paths through the planning process
- Enable them to access a wide range of models, research findings and examples of innovative learning designs, intended to
- Encourage them to explore new approaches and tools in their pedagogy

*<http://phoebe-app.conted.ox.ac.uk/>*



# Basic design template

Standard Phoebe template with basic detail.

Created by: David A. Balch (david.balch@conted.ox.ac.uk)

## Contextual information

<b>Title and author</b>	
<b>Course information</b>	
<b>Timetabling</b>	

## Curriculum aspects

<b>Learning outcomes</b>	
<b>Teaching resources</b>	
<b>Teaching approach</b>	

## Assessment

<b>Assessment</b>	
-------------------	--

## The students

<b>The students</b>	
---------------------	--

## Learning Activities

<b>Learning Activities</b>	
----------------------------	--

## Contingency Plan

<b>Contingency Plan</b>	
-------------------------	--

## Alternative activities

## Reflections on the Learning Session

<b>Personal impressions</b>	
<b>Outcome for</b>	

The **Technology-Supported Learning Database** is designed to make effective technology-facilitated teaching ideas, reusable and sharable. The database seeks to share good teaching ideas. The learning activities in this database have been supplied by teachers who are keen to see them used freely by others.



## Browse and search the database

The activities can be browsed and searched to discover those that might be used or modified. Browsing and searching do not require the user to be logged in.

## Add an activity

Teachers can add their own innovative activities to the database. Adding simply requires registering a name and password and logging in. Once registered in this way, users can add activities, maintain their entries, and rate other activities.

When adding activities, it is important to complete all the fields as descriptively as possible to allow others to understand the activity. When an activity is first submitted, a Moderator will activate the entry, which may take up to 24 hours. Once activated, the activity can then be viewed by others and edited at any time by the activity owner.

## Rate an activity

The rating facility allows teachers to rate activities that they feel have strong prospects for sharing reuse. The rating is intended to help identify strong activities in the database. Rating requires teachers to login.



## Feedback Welcome

We are very happy to receive your comments and feedback on strategies that might improve the functionality and effectiveness of this resource. Click [here](#) to offer advice, comments and to make some suggestions.

### Search options

Word search

Title of activity

Area

Year level

University

Form of activity

Hardware used

Software used

Scope of activity

### Description of activity

Game-informed learning practice in the Edinburgh medical curriculum involves a Web-based Computer-Assisted Learning (CAL) application. Since students can access this application at their convenience, this scenario is self-directed rather than instructor-led. One scenario involves George Prentice, a virtual patient, who has visited the local health clinic complaining of chest pains. Acting as George's doctor, each undergraduate medical student proceeding through the five-year degree program develops a long-term relationship with George as his condition grows increasingly complex.

Currently, George exists as a character within a series of CAL sequences. At the beginning of the scenario, George's condition matches the curricular content of the first year in the medical curriculum (in particular, respiratory medicine) and also integrates students' studies in basic biomedical science and medical sociology.

### Student role

Each student assumes the role of George's family doctor. Through textual, video, and animated sequences, students study model examination procedures, request tests, analyse results, and interact with the system by answering a variety of question types relevant to the case. As they consider George's case, students submit test requests and sample analysis forms, which are then processed in real time; likewise, students encounter George's 'appointments' in real time.

### Teacher role

Instructors need to assign clear roles or identities to the participating students and specify a starting point for the collaborative simulation.

Instructors also need to set an immersive contextual framework to engage the students performing the central role within the activity.

### Advantages derived from technology

Students can access this application at their convenience.

The scenarios are self-directed.

The technology provides an immersive, conceptual environment where students can engage, reflect and learn in a safe environment.

### Learning resources

Taken from the first year medical curriculum.

### Learning outcomes

Scenarios outline topics encountered directly in public health medicine and addresses multiple learning outcomes by requiring students to consider public health contexts, increase their awareness of tensions in a multi-agency healthcare domain, understand the primacy of effective decision making for short- and long-term solutions, and operate within budgets.

Other outcomes specific to certain scenarios instructs students in practicing effective detection, containment, confinement, and eradication of threats to public safety, relevant concerns in health management and patient admissions.

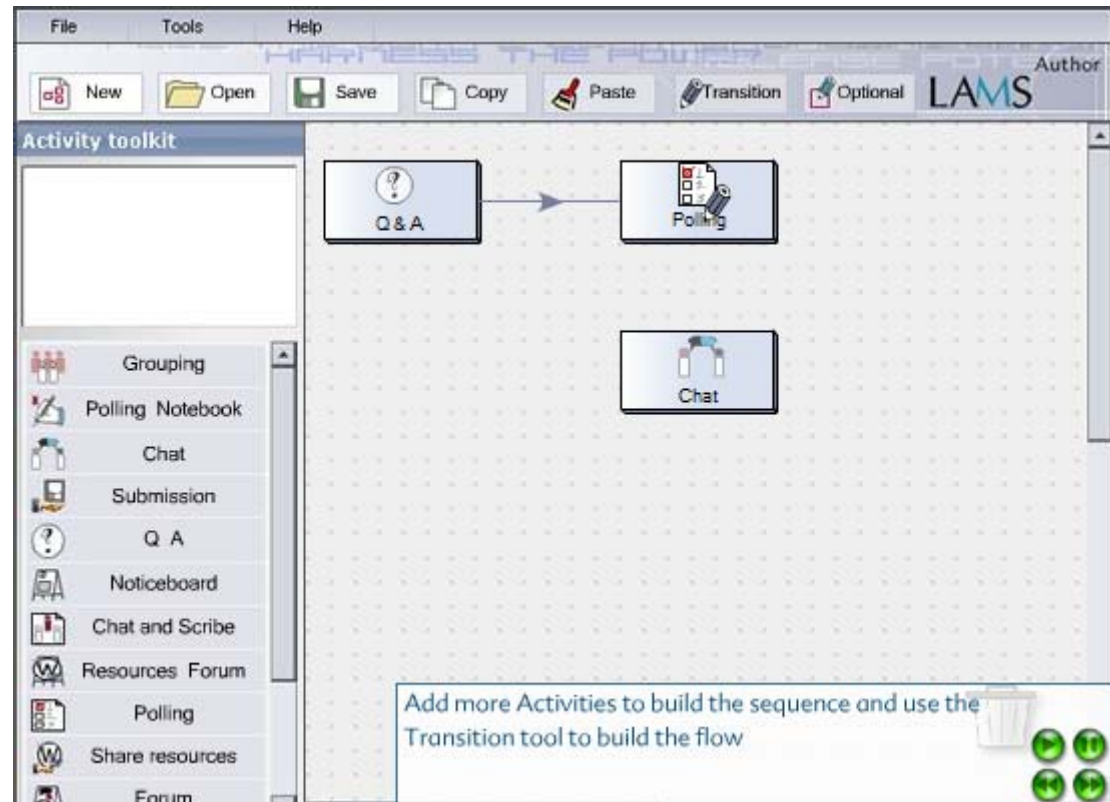
Developed from constructivist and PBL approaches, these scenarios value an engaged, reflective learner who is clearly situated in an immersive, social environment where actions lead to consequences that lead to other actions.

### Assessment strategy

End of year exams. Although not marked as a separate entity, an improvement has been noted with the results of students using the program.

# LAMS: Learning Activity Management System

- LAMS creates "digital lesson plans" that –
  - can be run online with students,
  - stored online and shared among teachers
- Most famous for the 'drag and drop' authoring interface
- Allow digital lessons to be run online



Author :: LAMS - Windows Internet Explorer

http://163.1.13.190:8080/lams/home.do?method=author

File Edit Tools Help

New Open Save Copy Paste Transition Optional Flow Group Preview

**Activities Toolkit**

Building a Computer Model - Level 1 - Version 4

Behaviour Compo...  
Chat  
Chat and Scribe  
Forum  
Forum and Scrib...  
Multiple Choice  
Notebook  
Noticeboard  
Q and A  
Resources and F...  
Share Resources  
Submit Files

Introduction → Announce plans → Simplest version → Testing

Sharing models  
Share Resources → Scan others → Enhance your model

Forum

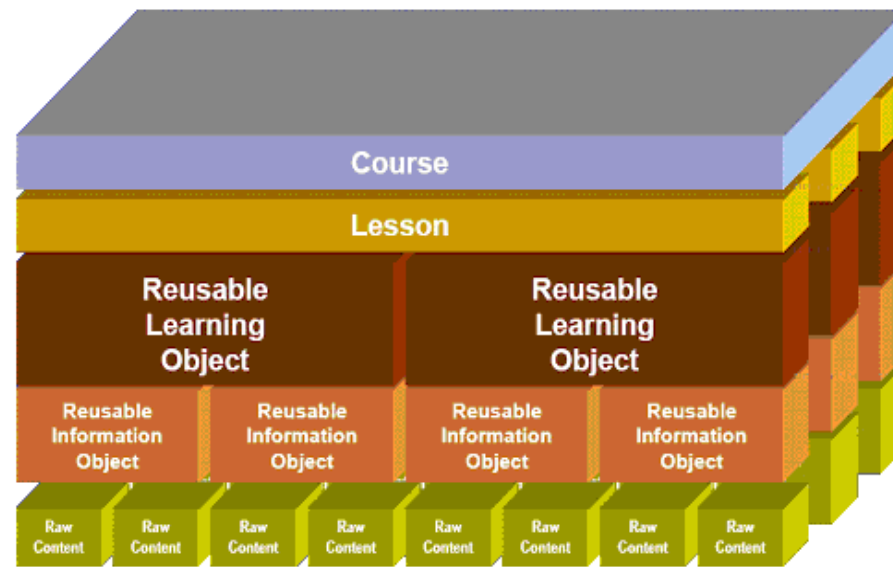
Properties - Behaviour Composer

Done Internet 100%

## Using LAMs: *lesson level tool*

- Create lesson plan using built in tool palette
- Run the lesson online
- Monitor activity and progress of students as they work through the activity sequence
  
- Powerful open source tool, that is well supported and has its own international community of practice
  
- Requires the commitments to set up and run the online lessons
  
- Free with extensive online support
  - <http://www.lamscommunity.org/>

# Transforming a course





# 'Blended learning'

- Blended learning: an appropriate combination of traditional face-to-face and online teaching
- It provides a way of introducing novel approaches within a familiar framework.
- Small or large changes to the 'blend'
  - It can be applied flexibly and gradually to introduce small changes or to transform a complete course
- The nature and scale of the blend is determined by the issues/problems you wish to tackle.

# Case study: Improving pass rates in Introductory programming

- This approach started with the users' needs - this is what motivated the particular blend.
- An appropriate blend of online and offline resources which included:
  - significant changes to the content of the curriculum;
  - changes to the organization of the modules
  - development and use of a major eLearning component.
    - the eLearning aspect involved the use of a standard VLE (WebCT) enhanced with multimedia learning objects

IB110 Introduction to Programming (Java) Sem A 02/03 - WebCT 3.8.1 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address http://webct.unl.ac.uk/SCRIPT/IB110/scripts/serve\_home

Go Links Norton Antivirus

**WebCT** MYWEBCT | RESUME COURSE | COURSE MAP | LOG-OUT | HELP

IB110 Introduction to Programming (Java) Sem A 02/03  
 Home - Course Content and Related Materials - Week 3

## Basic repetition in Java

Computers are often... again. For example, ... terminating only when ... indefinite loop and is ... the while statement c...

### Example code

This is the code need... choice, repeated until...

```

while ( choice = offerMenu() )
{
    choice = ...
} // end while

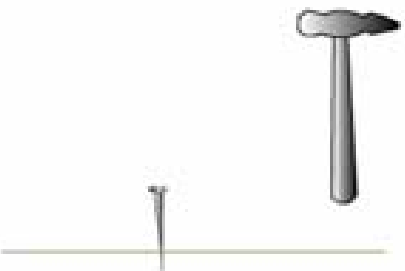
```

### Explanation

In Java a while state...

Part 1

While loops - Microsoft Internet Explorer



We use repeated actions to solve problems in everyday life i.e. We want to hammer a nail into a piece of wood. So we follow the routine:

```

while (the nail is not flush) hit the nail

```

Show

Back WHILE LOOPS 1 of 7 Next

# Module results

Pass rates increased for all modules

## Pass rates

Course	Percentage point increase	
	2002-3	2003-4
LondonMet HND	+19	+27
LondonMet BSc	+15	+21
Bolton BSc	+23	+12
LondonMet MSc	+12	+19

Note: based on number of students completing modules compared with 2001-2

These increases exceeded our expectations

# Agile Development of Learning Resources

# Developing multimedia learning objects

- 'Agile' development
- Small groups
- Tutor (learners) and developer
- Driven by learner needs
- Workshops
- Iterative prototyping
- Evaluation



*Boyle T. et al.(2006) An Agile method for developing learning objects. Proceedings of the 23rd Annual ASCILITE conference*

Before knowledge about my subject - looking for additional items + information, looking + interacting with the artefact in different ways will help you to fully that experience + knowledge + develop/acquire new knowledge + experience

Notes  
Artefact should be on every page

INITIAL IMPRESSIONS?  
NEXT WITH ITEMS -  
NOW THINK OF SOME  
DOWN...

Notes

Anthropology

- ORIGIN
- PURPOSE / REALISATION
- MEANING / SYMBOLISM
- REFERENCES

RELIGION

- ORIGIN
- PURPOSE / REALISATION
- MEANING / SYMBOLISM
- REFERENCES

SOCIOLOGY

- ORIGIN
- PURPOSE / REALISATION
- MEANING / SYMBOLISM
- REFERENCES

ART

- ORIGIN
- REALISATION
- MEANING / SYMBOLISM
- REFERENCES



Please click on the artefact to progress to the first tutorial task.

Screen 2

[Title]  
Reflective Activity 1

[Instructions: Free Text Box]  
Look at the artefact on the right and open the notepad to record your answers to the following questions:  
1. What is it?  
If you do not already know what it is, simply record what you see (for example, a statue of a family group, a text about a bottle).  
2. What do you know about it already?  
If you know what it is, do you know what it was for or where it is now?  
If you do not know what it is, review your answer to 1 to discover what you know already.  
3. What do you want to find out?  
Remember to make a note of the view(s) and phase(s) where you find information to answer your questions.

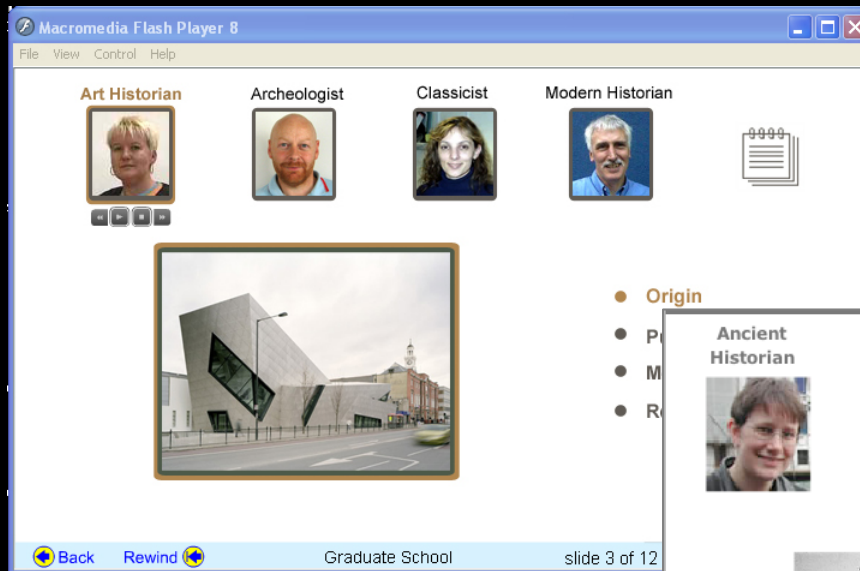
[Artefact as link to next page - clickable]

Deleted: s.g.  
Deleted: a  
Deleted: of a family group.  
Deleted: about a bottle  
Deleted: etc.)

Comment: Yes we do, it only occurred to me when I was writing the instructions that some will want to do this in one go and, using evidence from medicine students in computer classes using Blackboard tools, may want to break off doing it alone and work together, but go back to their task.

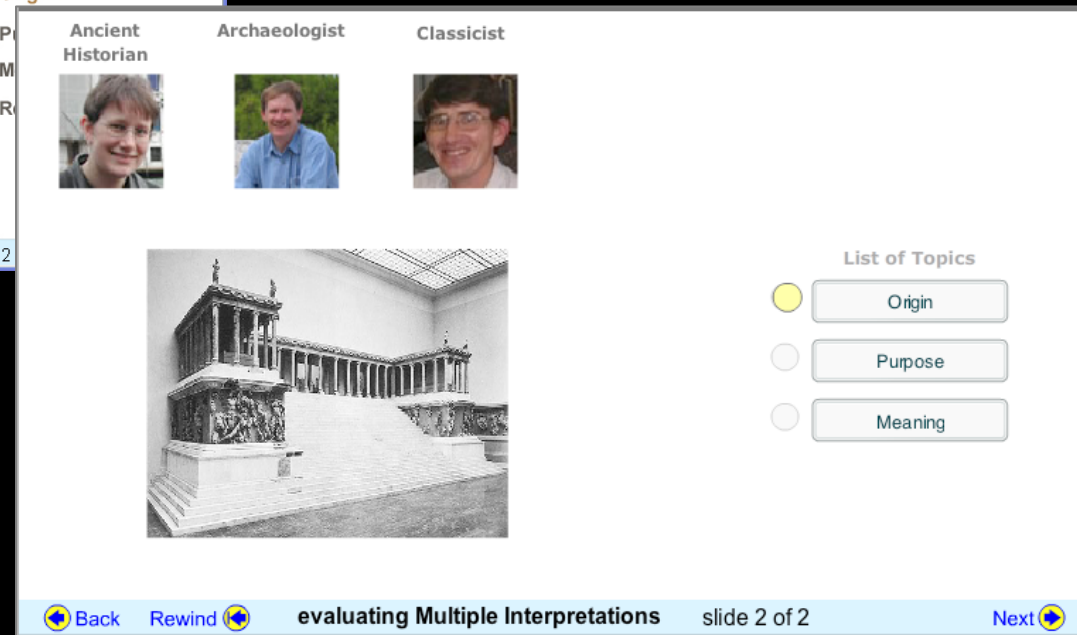
Deleted: to the left  
Deleted: Questions about  
Deleted: Questions about  
Deleted: Questions about

# Artefact GLO tool



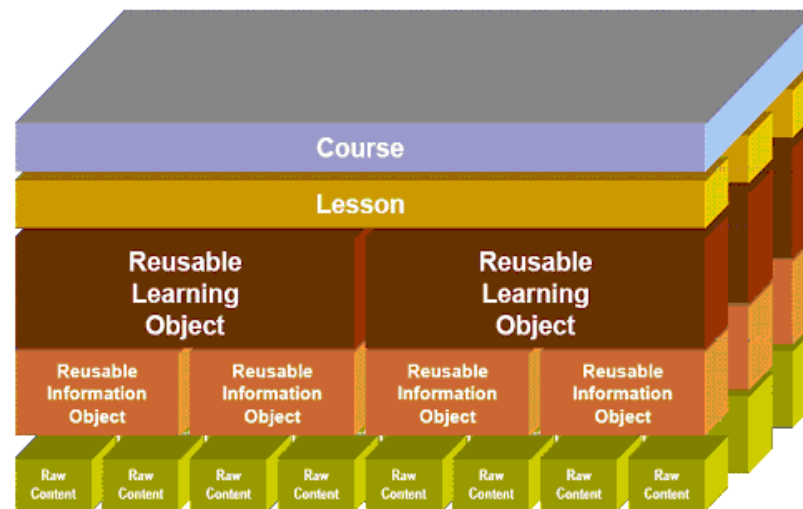
Prototype

Instance





# Adaptable learning resources



## Generative learning objects (GLOs)

- The basis for reuse is the pedagogical pattern rather than 'content' of the learning object
- A richer basis for reuse and *repurposing*
- This gives a tremendous increase in productivity
- Allows local tutors to repurpose learning objects to meet their local needs and preferences
  - including international adaptation

## Making GLOs available to users

- Pedagogical designs are represented as 'plug-in' patterns to the an Authoring tool.
- The tool can be used to create specific learning objects based on the chosen pattern.
- Each of these learning objects can be adapted by local tutors (or learners), using the same tool, to meet their local needs and preferences.
- All these learning objects run as Web based learning objects.

The following slides show screen shots  
from the demonstration of the GLO  
Authoring tool

The authoring tool may be  
downloaded free from the web site:

<http://www.glomaker.org>

# GLO Authoring Tool

The screenshot shows the GLO Maker software interface. At the top, there is a menu bar with 'File', 'Preview', and 'Help'. Below the menu bar, the GLO Maker logo is displayed, consisting of a stylized 'G' made of colored squares and the text 'GLO Maker Generative Learning Object Maker'. The main content area features the question 'What do you want to do?' followed by three colored boxes, each representing a primary function of the tool:

- Create Storyline** (orange box): Use the Pattern-Maker tool to create or edit the top level 'storyline' of your design for learning. Below this text is a small screenshot of the Pattern-Maker tool interface, which shows a hierarchical tree structure of learning design elements.
- Create Screens** (blue box): Use the GLO-Maker tool to construct and edit each screen in your learning design scenario. Below this text is a small screenshot of the GLO-Maker tool interface, showing a 3D perspective view of a screen layout.
- Tutorials & Examples** (purple box): Use our online tutorials and resources to help you create a GLO. Below this text is a small screenshot of a web browser displaying various tutorial and example resources.



# GLO Maker

Generative Learning Object Maker

- :: [Home](#)
- :: [Download](#)
- :: [Training](#)

## Generative Learning Object Maker



### Version 1.0 of GLO Maker released July 17th 2008.

Welcome to the support site for GLO-Maker. This tool is used to create and adapt generative learning objects (GLOs).

The first phase of learning objects, whilst engaging, interactive and educationally effective, is limited in some respects. The basic unit of reuse is the object as a whole and this leads to marked limitation in productivity. GLOs provide a more flexible format for developing learning objects which supports both increased productivity in initial development and flexible repurposing by local tutors.

GLO-Maker aims to provide a powerful and user friendly tool to create new generative learning objects, or adapt and repurpose existing generative learning objects. From this site you can download the latest, free version of the tool. You can also download the User Guide and resources for interactive tutorials provided.

### Contact Us

For further information about the GLO Maker please email:  
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# 'Create storyline'

The screenshot shows the 'Pattern Maker' software interface. The window title is 'Pattern Maker'. The menu bar includes 'File' and 'Help'. The main toolbar contains 'Pattern Tool', a dropdown menu set to 'EASA', and an 'Align Nodes' button. The interface is divided into three main sections: a left-hand legend, a central vertical timeline, and a right-hand content area.

**Legend:**

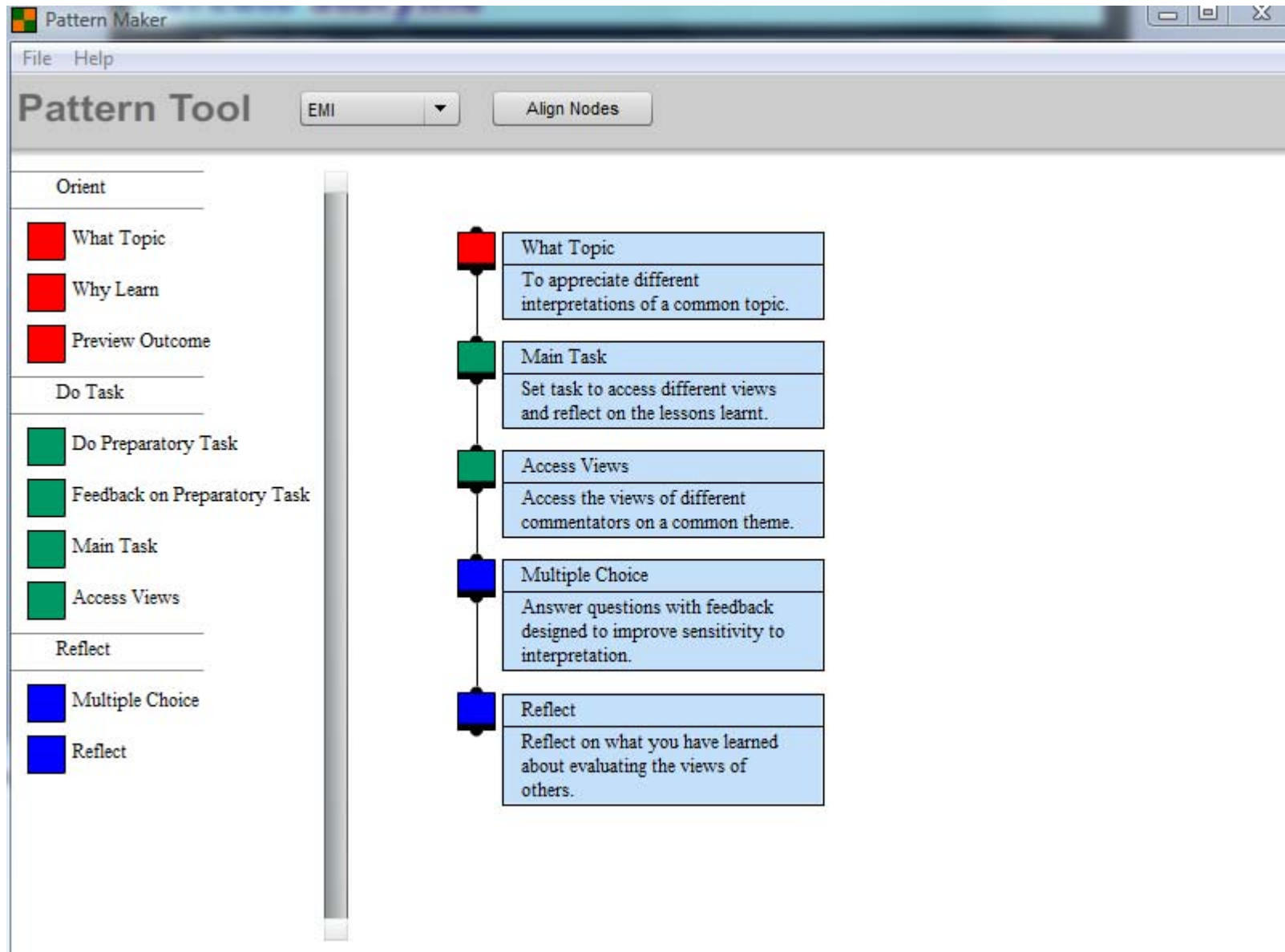
- Orient:**
  - What Topic (Red square)
  - Grab Attention (Red square)
  - Why Learn (Red square)
- Understand:**
  - Apprehend (Green square)
  - Comprehend (Green square)
- Use:**
  - Construct (Blue square)
  - Quiz (Blue square)

**Storyline:**

The central vertical timeline consists of four colored nodes connected by a vertical line. Each node is a square with a colored top half and a light blue bottom half containing text. The nodes are:

- What Topic (Red node):** WHAT the topic is about
- Apprehend (Green node):** Give the learner a GLOBAL GRASP of the concept
- Comprehend (Green node):** Work through an illustrated example with a STEP BY STEP EXPLANATION
- Construct (Blue node):** CONSTRUCT AN EXAMPLE under supportive conditions

# Second 'Storyline' or pedagogical pattern





# 'Create screens'- surface structure

The screenshot displays the GLO Maker software interface. The title bar reads "GLO Maker" and includes standard window controls. The menu bar contains "File", "Preview", and "Help".

On the left, a sidebar menu is expanded to show "EMI" with sub-items: "What", "Preview Outcome", "Main Task", "Access Views" (highlighted), "Multiple Choice", and "Reflect".


The main workspace is titled "Access Views" and features four expert avatars: "Ancient Historian", "Archaeologist", "Classicist", and "Modern Historian". A blue silhouette icon labeled "Add Expert" is also present. Below the avatars is a large image of a classical building with a "Remove Media" button overlaid. To the right of the image is a "List of Topics" panel with four radio buttons and "Edit" links: "Origin", "Purpose", "Meaning", and "Referencing". A "+ Add Topic" button is located below the list.


At the bottom, a blue navigation bar contains "Back", "Rewind", "evaluating Multiple Interpretations", "page 4 of 6", and "Next".


# Learner view of finished learning object


Adobe Flash Player 9


File View Control Help

**Ancient Historian**  


**Archaeologist**  


**Classicist**  


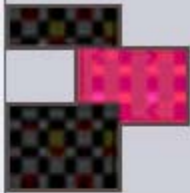
**Modern Historian**  




**List of Topics**

- Origin
- Purpose
- Meaning
- Referencing

Back Rewind evaluating Multiple Interpretations slide 4 of 10 Next



# GLO Maker

Generative Learning Object Maker

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## Download



### Latest version:

Download [GLO Maker v1.0 Installer \(8.53 MB\)](#)

Installation help documentation:

- Installation guide for [Fire Fox](#) browser users
- Installation guide for [Internet Explorer](#) browser users
- Video Tutorial on [Installing GLO Maker](#)



Click on [GLO FAQs](#) to get answers to the main questions usually asked about Generative Learning Objects.

### Previous version:

# Summary

- How do we improve the effectiveness of teaching and learning?
- Use of learning objects
- Online lessons
- Transforming a course
- What is your goal? Choose the size and nature of the intervention to meet the target that you set.