A Differential Model of Effective Advice for Implementing Learning Designs

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Keynote for 2010 European LAMS & Learning Design Conference, Wolfson College, Oxford University, 15th July 2010

Overview

- LAMS Update
- LAMS and Visualisation
- Many kinds of advice
- A differential model of advice

Thank you

- Liz Masterman and colleagues at Oxford
- Diana Laurillard and Liz Masterman and for keynote
- Leanne Cameron & Renee Vance at MELCOE for conference organisation
- Sarah Knight & JISC for conference sponsorship
- Ernie Ghiglione & the LAMS technical team
- Chris Alexander and colleagues for publishing the first book on LAMS research
  - Free copy for conference participants

LAMS Update

- LessonLAMS
- “Embed”
  - Thanks to OU and JISC for support
- Activity Planner (shown later)

LessonLAMS & Embed

- We are adding an “embed” feature for LAMS sequences in the LAMS Community to allow you to embed an authoring view of a sequence directly into any webpage (eg, blog) - like YouTube embed

- Makes it easier for teachers to illustrate good teaching ideas using real teaching examples (show rather than describe in text)

- Will allow immediate access (no login) to Learner Preview, and access to full Author view (including editing) in LessonLAMS

- Any teacher can easily post sequences straight to the web, and colleagues who find them can easily preview them (as Learners) and use them with students within minutes (via LessonLAMS)

LessonLAMS & Embed

- Demonstration

LAMS & Visualisation

- The conference proceedings include a paper with a historical view of LAMS and visualising designs
  - Focus on the Authoring environment

- Some of the strengths and limitations of LAMS were a byproduct of our approach to visualisation, especially:
  - No XML
  - Visual flow of activities
  - Only permit authoring of designs that could be run
  - Offer only activity tools and settings that could be run
  - But: these assumptions meant a necessary simplification of LD

Many kinds of advice

- A cooking lesson…

Many kinds of advice

COLD SWEETS

Oranges Riviéra

For 12 persons: 1 large orange made of orange-coloured blown sugar; top, stem and leaves in Almond paste and blown sugar; 12 oranges; 1 large and 12 small lotus flowers in Almond meringue paste; about 2 pints Orange ice cream.

Cut off tops of oranges, empty and remove juice to make the Orange ice cream. Clean the skins and tops and decorate with the Almond paste stems and leaves coloured green. Place the blown sugar orange on a large lotus flower and fill with *petits fours*. Arrange the oranges filled with the ice cream all round, each on a small lotus flower, and put tops back on oranges. (*See illustration p.* 28).

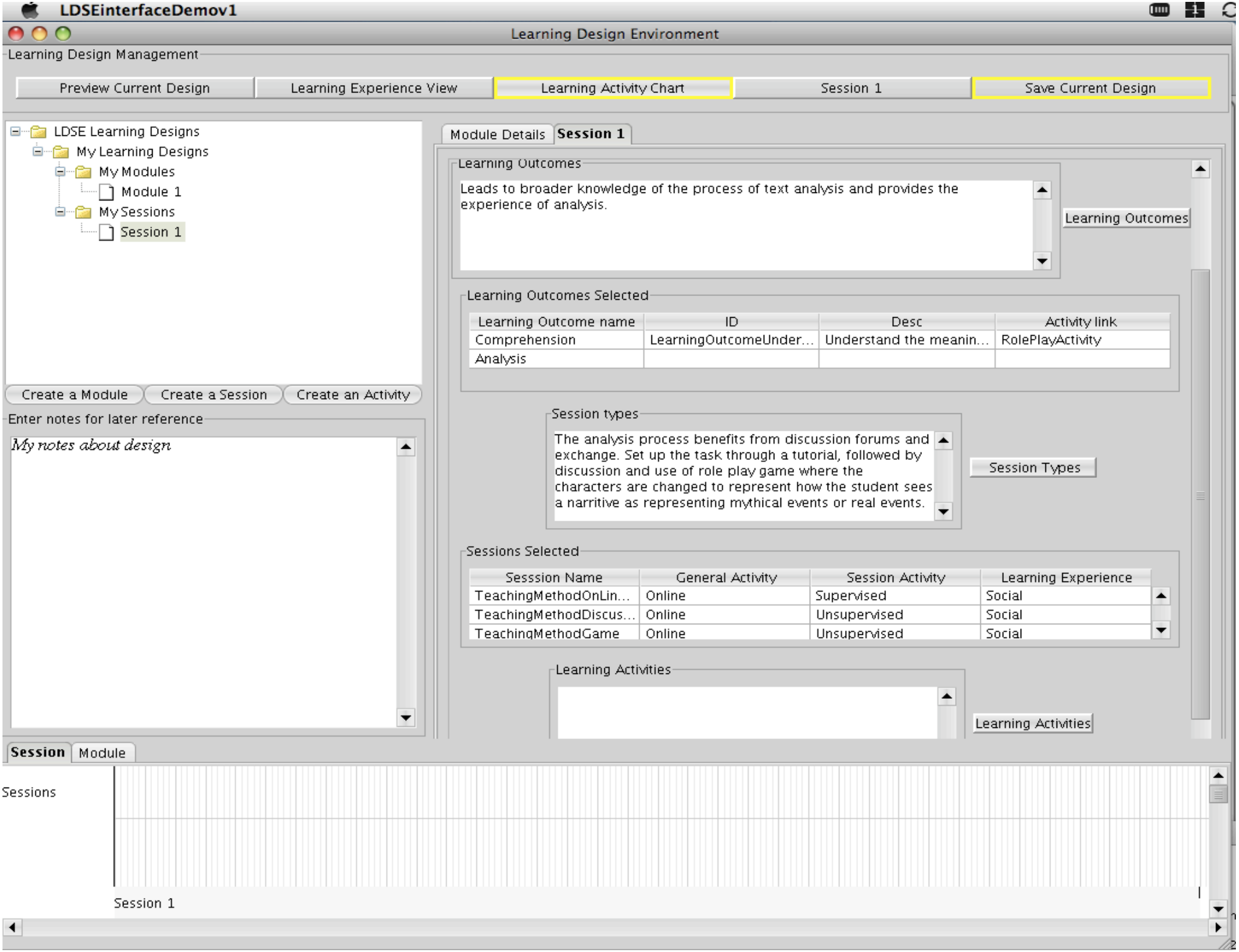
Many kinds of advice

- Apart from the “runnable” learning design that can be shared with educators (IMS LD XML, LAMS export file, etc), there are many kinds of accompanying advice:
  - Advice on developing whole of course teaching structures
  - Advice on how to edit designs for different purposes
  - Advice on micro-level elements, such as question phrasing
  - Advice suitable for rapid adoption of a design
  - Advice suitable for major course redevelopment
  - Advice on background pedagogical theories
  - Advice on interconnections among discipline topics
  - Advice on practical management of a running design
  - Advice on how to facilitate discussion within a running design
  - *…. and advice that is brief or detailed!*

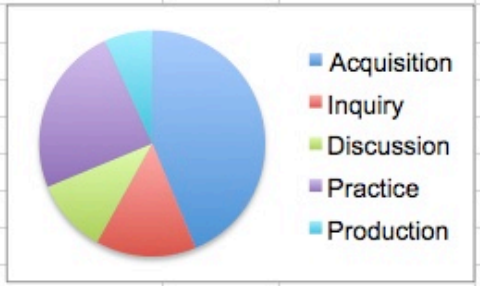
Many kinds of advice

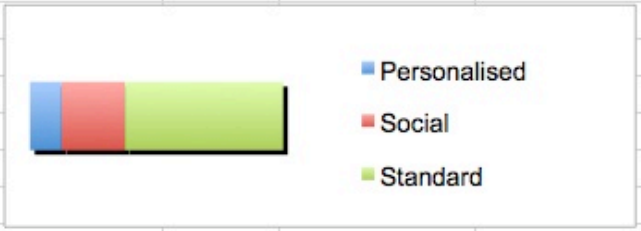
- Examples from:
  - LDSE project
  - Phoebe
  - AUTC Learning Design project
  - LAMS Community & Teachers Guide
  - Patterns & LD paper
  - …and many others

  - LAMS Activity Planner – various recent approaches


LDSEinterfaceDemov1
Learning Design Environment
Learning Design Management
Preview Current Design
Learning Experience View
Learning Activity Chart
Session 1
Save Current Design
LDSE Learning Designs
My Learning Designs
My Modules
Module 1
My Sessions
Session 1
Create a Module
Create a Session
Create an Activity
Enter notes for later reference
My notes about design
Module Details
Session 1
Learning Outcomes
Leads to broader knowledge of the process of text analysis and provides the experience of analysis.
Learning Outcomes
Learning Outcomes Selected
Learning Outcome name
ID
Desc
Activity link
Comprehension
LearningOutcomeUnder...
Understand the meanin...
RolePlayActivity
Analysis
Session types
The analysis process benefits from discussion forums and exchange. Set up the task through a tutorial, followed by discussion and use of role play game where the characters are changed to represent how the student sees a narritive as representing mythical events or real events.
Session Types
Sessions Selected
Sesssion Name
General Activity
Session Activity
Learning Experience
TeachingMethodOnLin...
Online
Supervised
Social
TeachingMethodDiscus...
Online
Unsupervised
Social
TeachingMethodGame
Online
Unsupervised
Social
Learning Activities
Learning Activities
Session
Module
Sessions
Session 1

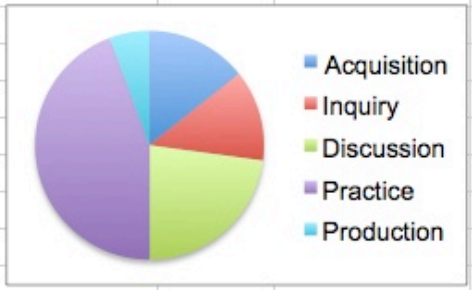
Conventional model	15-minute periods for a 4-hour Session				
	Supervised Class	**Supervised Class**			Total mins
T-L Activities	1	2	3	4	
Tutor presentation	1 1	1 1	1	1 1	105
Tutor-led discussion		1			15
Classroom-based individual work	1 1	1			45
Classroom-based group work			1	1 1	45
Student group discussion					0
Formative practice, peer-assessed			1		15
Formative practice, tutor-assessed				1	15
Adaptive resource-based individual work					0
Adaptive resource-based group work					0
Tutored online discussion					0
Student online discussion					0
Formative practice, computer-assessed					0
Total					240

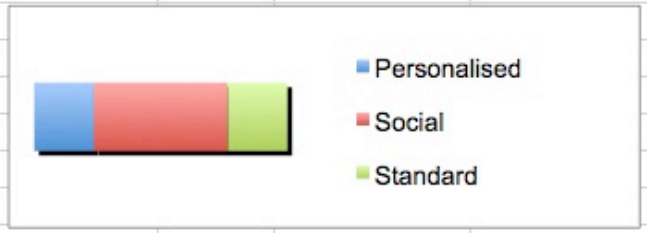




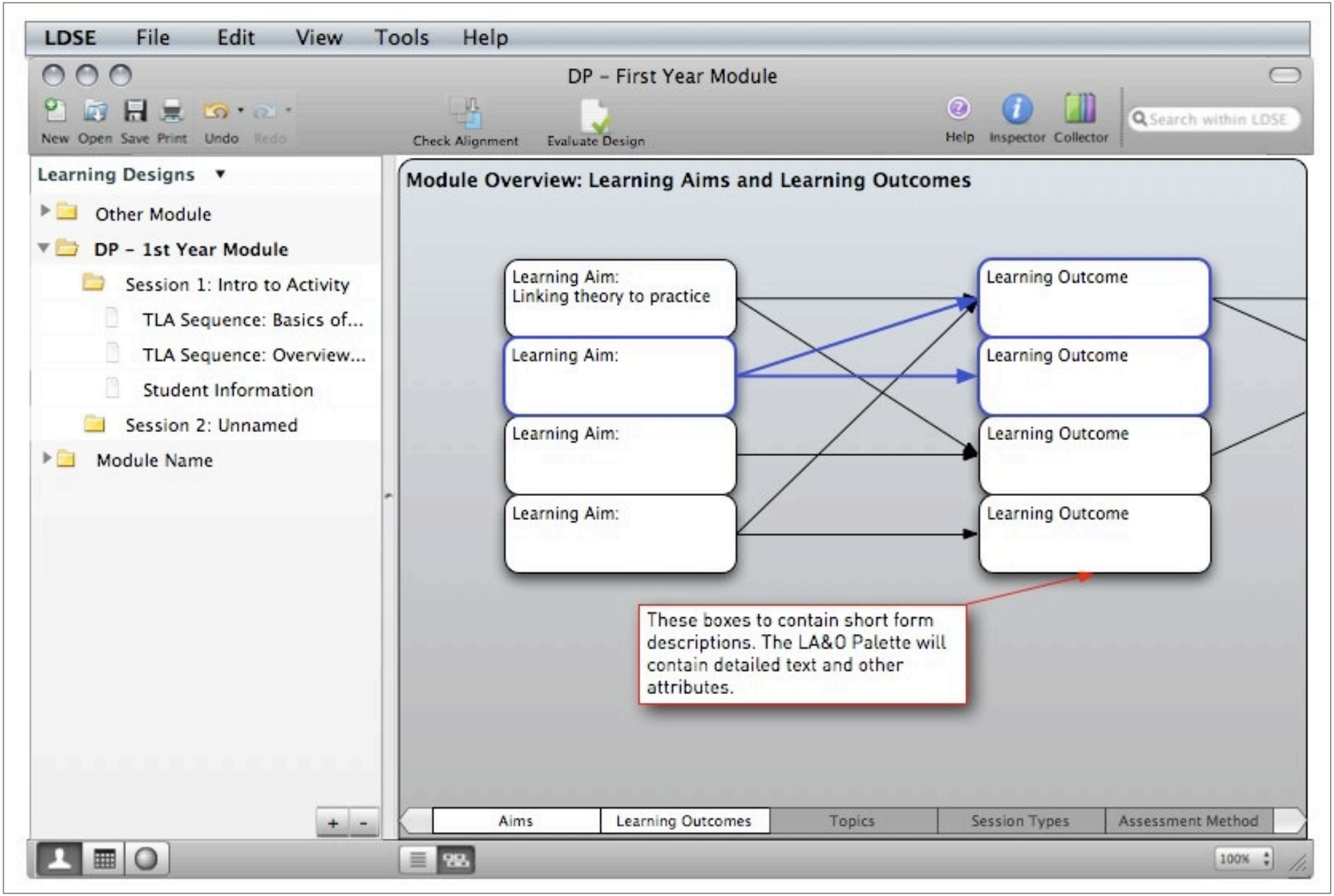
Teacher time = 5.33 hours
Learner time in class = 4.00 hours

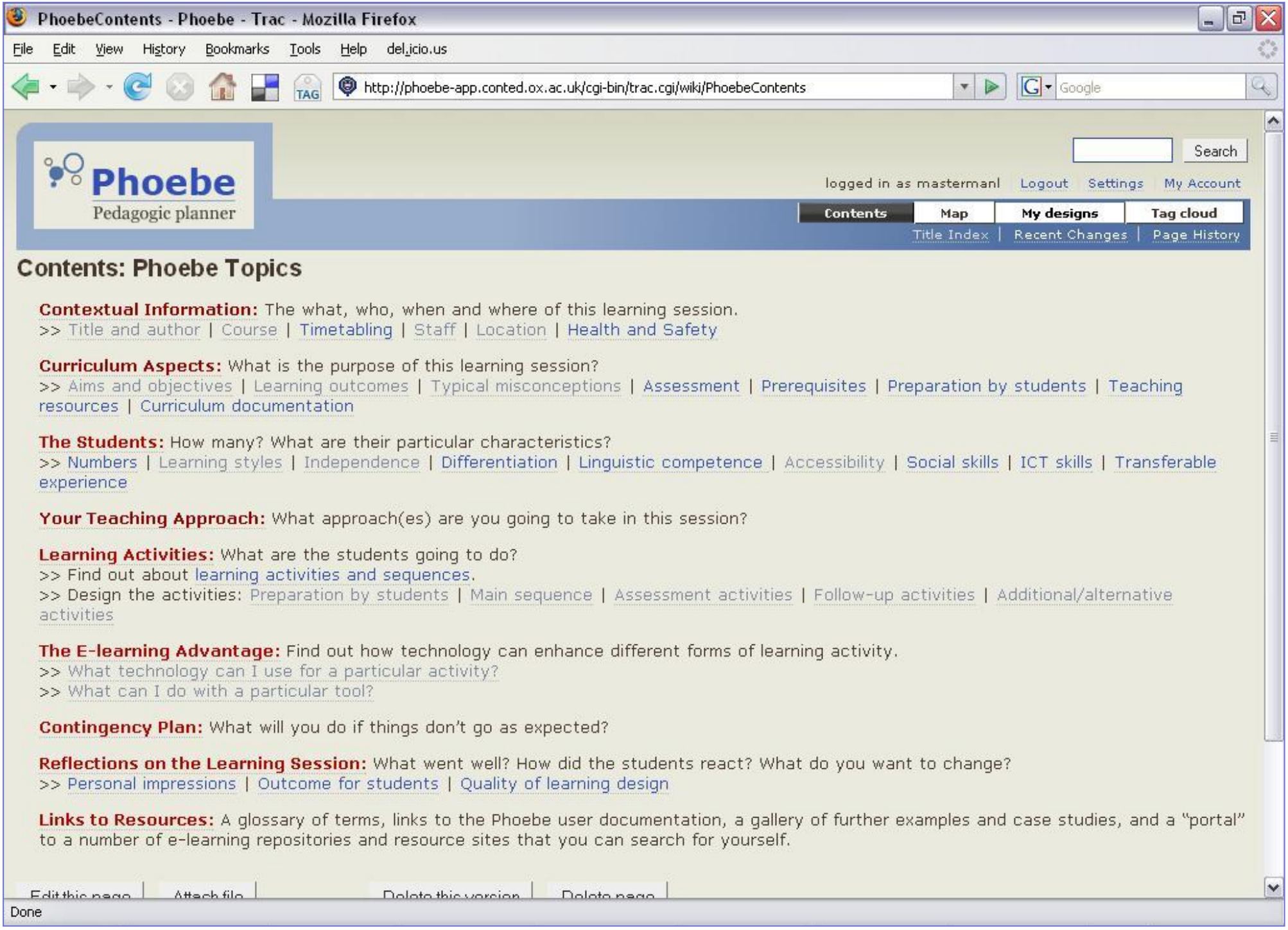
Blended model	15-minute periods for a 2-hour Class + Private study				
	Private study	**Supervised Class**		**Private study**	Total mins
T-L Activities	1	2	3	4	
Tutor presentation		1	1		30
Tutor-led discussion			1	1	30
Classroom-based individual work		1	1		30
Classroom-based group work		1	1		30
Student group discussion					0
Formative practice, peer-assessed					0
Formative practice, tutor-assessed				1	15
Adaptive resource-based individual work	1 1				30
Adaptive resource-based group work					0
Tutored online discussion					0
Student online discussion	1 1			1	45
Formative practice, computer-assessed				1 1	30
Total					240





Teacher time = 2.61 hours
Learner time in class = 2.00 hours


LDSE
File
Edit
View
Tools
Help
DP – First Year Module
New
Open
Save
Print
Undo
Redo
Check Alignment
Evaluate Design
Help
Inspector
Collector
Search within LDSE
Learning Designs
Other Module
DP – 1st Year Module
Session 1: Intro to Activity
TLA Sequence: Basics of...
TLA Sequence: Overview...
Student Information
Session 2: Unnamed
Module Name
Module Overview: Learning Aims and Learning Outcomes
Learning Aim:
Linking theory to practice
Learning Aim:
Learning Aim:
Learning Aim:
Learning Outcome
Learning Outcome
Learning Outcome
Learning Outcome
These boxes to contain short form descriptions. The LA&O Palette will contain detailed text and other attributes.
Aims
Learning Outcomes
Topics
Session Types
Assessment Method
100%


PhoebeContents - Phoebe - Trac - Mozilla Firefox
File Edit View History Bookmarks Tools Help del.icio.us
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Google
Phoebe
Pedagogic planner
Search
logged in as masterman1 Logout Settings My Account
Contents Map My designs Tag cloud
Title Index | Recent Changes | Page History
Contents: Phoebe Topics
Contextual Information: The what, who, when and where of this learning session.
>> Title and author | Course | Timetabling | Staff | Location | Health and Safety
Curriculum Aspects: What is the purpose of this learning session?
>> Aims and objectives | Learning outcomes | Typical misconceptions | Assessment | Prerequisites | Preparation by students | Teaching resources | Curriculum documentation
The Students: How many? What are their particular characteristics?
>> Numbers | Learning styles | Independence | Differentiation | Linguistic competence | Accessibility | Social skills | ICT skills | Transferable experience
Your Teaching Approach: What approach(es) are you going to take in this session?
Learning Activities: What are the students going to do?
>> Find out about learning activities and sequences.
>> Design the activities: Preparation by students | Main sequence | Assessment activities | Follow-up activities | Additional/alternative activities
The E-learning Advantage: Find out how technology can enhance different forms of learning activity.
>> What technology can I use for a particular activity?
>> What can I do with a particular tool?
Contingency Plan: What will you do if things don't go as expected?
Reflections on the Learning Session: What went well? How did the students react? What do you want to change?
>> Personal impressions | Outcome for students | Quality of learning design
Links to Resources: A glossary of terms, links to the Phoebe user documentation, a gallery of further examples and case studies, and a "portal" to a number of e-learning repositories and resource sites that you can search for yourself.
Edit this page | Attach file | Delete this version | Delete page
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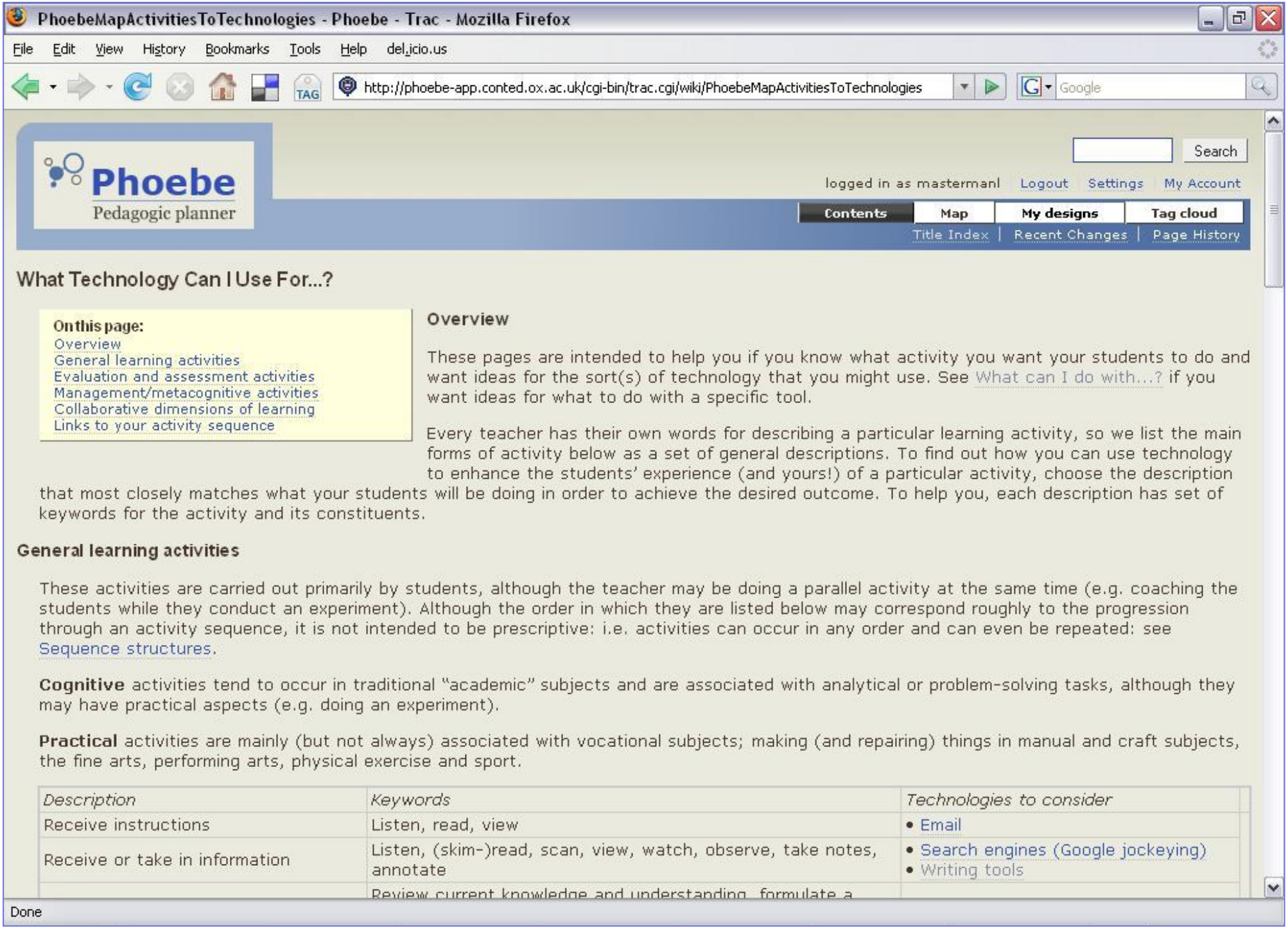
PhoebeMapActivitiesToTechnologies - Phoebe - Trac - Mozilla Firefox
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http://phoebe-app.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/PhoebeMapActivitiesToTechnologies
Google
Phoebe
Pedagogic planner
Search
logged in as mastermanl Logout Settings My Account
Contents Map My designs Tag cloud
Title Index | Recent Changes | Page History
What Technology Can I Use For...?
On this page:
Overview
General learning activities
Evaluation and assessment activities
Management/metacognitive activities
Collaborative dimensions of learning
Links to your activity sequence
Overview
These pages are intended to help you if you know what activity you want your students to do and want ideas for the sort(s) of technology that you might use. See What can I do with...? if you want ideas for what to do with a specific tool.
Every teacher has their own words for describing a particular learning activity, so we list the main forms of activity below as a set of general descriptions. To find out how you can use technology to enhance the students' experience (and yours!) of a particular activity, choose the description that most closely matches what your students will be doing in order to achieve the desired outcome. To help you, each description has set of keywords for the activity and its constituents.
General learning activities
These activities are carried out primarily by students, although the teacher may be doing a parallel activity at the same time (e.g. coaching the students while they conduct an experiment). Although the order in which they are listed below may correspond roughly to the progression through an activity sequence, it is not intended to be prescriptive: i.e. activities can occur in any order and can even be repeated: see Sequence structures.
Cognitive activities tend to occur in traditional "academic" subjects and are associated with analytical or problem-solving tasks, although they may have practical aspects (e.g. doing an experiment).
Practical activities are mainly (but not always) associated with vocational subjects; making (and repairing) things in manual and craft subjects, the fine arts, performing arts, physical exercise and sport.
Description
Keywords
Technologies to consider
Receive instructions
Listen, read, view
Email
Receive or take in information
Listen, (skim-)read, scan, view, watch, observe, take notes, annotate
Search engines (Google jockeying)
Writing tools
Review current knowledge and understanding, formulate a
Done

Plan	resources	• Wikis
Review, reflect	Evaluate actual outcomes against intended outcomes, evaluate task performance, evaluate changes in skill/knowledge/understanding, review goals	• Blogs • Wikis

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Collaborative dimensions of learning

These are not activities as such; rather, they suggest ways in which you can foster social skills and collaborative learning within the other activities on this page.

Where the focus is on:	*Consider encouraging students to:*	*Using these technologies:*
Interactivity (e.g. developing communication skills)	Participate, discuss, listen, explain, facilitate	• Discussion forums • Chat, instant messaging
Clarifying and developing individual points of view	Discuss, debate, argue, question, clarify, explain, justify, dispute, support, evaluate/critique	• Discussion forums • Email • Wikis • Electronic voting systems • Blogs • Collaborative writing tools
Collective outcome or product	Seek opinions, express opinions, reach decisions, agree and assign tasks, collaborate, work in pairs/groups, integrate outcomes, reach consensus	• Search engines (Google jockeying) • Social bookmarking • Discussion forums • Wikis • Email • Collaborative writing tools

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Links to your activity sequence

Preparation by students | Main sequence | Assessment activities | Follow-up activities | Additional/alternative activities

Jigsaw

Snapshot

"Applying an online "Jigsaw" collaborative learning strategy in an Education subject"

Design Team

Team: Diane Hansford and Alan Wylie

Focus:	Collaborative
Discipline:	Education & Educational Technology
Target:	Undergraduate
ICT used:	Web plus LMS (Learning Management System)
Scope:	Over several learning sessions

Designer's summary

This learning design involves an online collaborative strategy referred to as a "Jigsaw" approach.

The learning experience provides the opportunity for students to work in groups online to investigate six examinable topics on teaching and learning theory.

The online group work is to encourage collaboration, interdependence and purposeful sharing of resources and knowledge. In addition, face-to-face activities such as lectures, seminars and workshops allow opportunities for networking beyond the online environment. In undertaking the major task student teams reach consensus as they construct a single report on their investigations and develop mastery of their particular topic. The groups then share their knowledge with other teams who have investigated different topics. Students are then able to become familiar with all topics through access to each team report.

Towards the end of the semester the students sit an exam that requires them to write an essay based on

Jigsaw - Designer's Voice - Mozilla Firefox

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http://www.learningdesigns.uow.edu.au/exemplars/info/LD30/more/02DesignersVoice.html

Google

Learning Designs

products of the AUTC project on ICT-based learning designs

home | exemplars | guides | tools | the project | search

snapshot | designer's voice | cross-links

implementation

context | reflections

Jigsaw

Designer's voice

Context

Sequence

View the Learning Design Sequence for a graphical representation of the learning design.

Comments from the Evaluation Team...

The evaluators summarised the learning design as follows:

"Students work in small groups online to investigate a topic. However there are offline activities presentations and lectures that would allow opportunities for networking beyond the online environment. They reach consensus as they construct a single report on their investigation. They then share their knowledge with other students who have investigated different topics. In order to prepare for their final exam they are expected to develop knowledge in all topic areas."

Tasks

...Over a period of five weeks, the groups met online to discuss key issues and identify problems and solutions relating to their topic. Over the five weeks students were directed to carry out searches to gather information on their topic...

Resources

Computer laboratories...WebCT site...set textbook...

Supports

The main support mechanism was the organisation of students into collaborative groups and the defined process to undertake the activity...

more

Implementation

Setting Notes

The broader context of the degree is to train the students to become primary school teachers. The Bachelor of Education degree aims to develop communication skills and information technology skills as well as other attributes of a graduate...

Outcomes

...develop an appreciation of the advantages of interdependence and collaborative constructed understanding; develop skills of autonomous learning; develop a knowledge base for teaching and learning through group project...

Assesment

The contribution to the online group work is not assessable. However, students will undertake writing an essay under test conditions at the end of the semester...

ICT Contribution

Some of the challenges...have come about through the adoption of an inappropriate model for use in

Done

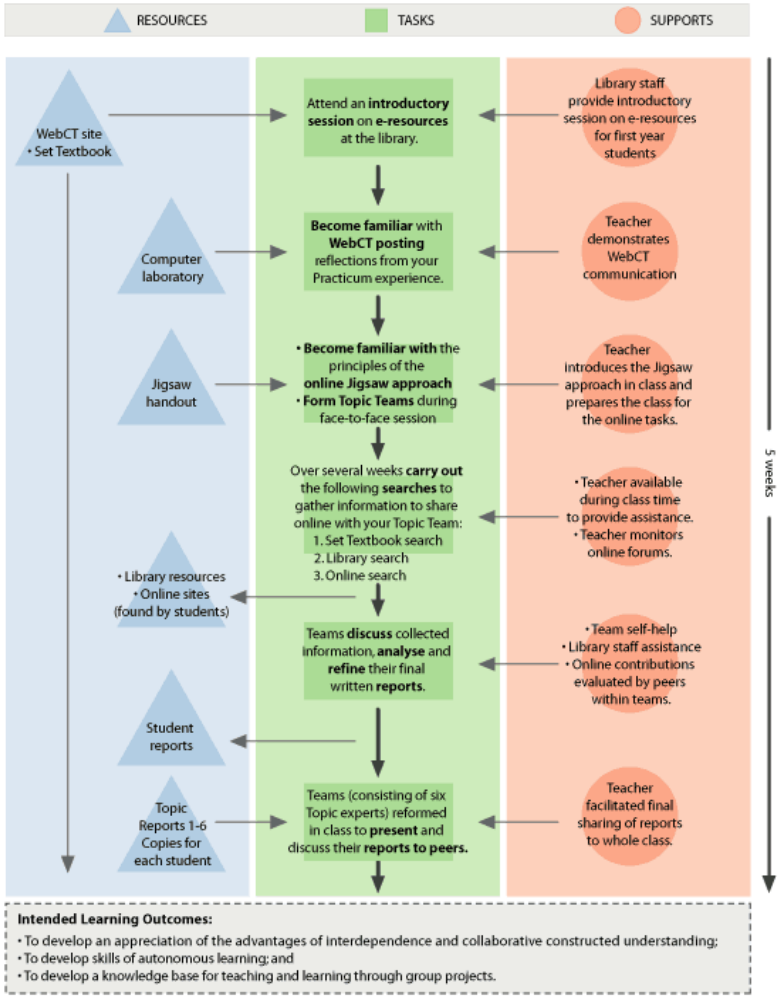
zotero

start | 2 Microsoft Of... | 2 Windows Ex... | Untitled - Notepad | 2 Microsoft Of... | Blackboard Lear... | Ampliative - defi... | Jigsaw - Design... | 100% | 3:50 PM

Sequence

This learning design involves an online collaborative strategy referred to as the "Jigsaw" approach.

The Learning Design Sequence is illustrated as follows.



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Task

Pedagogy Notes

The premise for the development of this learning design was that the application of activity-based processes that required students to participate with one another in focused discussions on a bulletin board, would result in improved outcomes for student learning. Also, this planned approach to the use of collaborative learning activities on bulletin boards was designed to allow the teacher to adopt the role of facilitator rather than the constant monitor.

The Jigsaw approach was first developed by Elliot Aronson in 1978 (Aronsom, Blaney, Stephan, Sikes, & Snapp, 1978) and has been adapted to achieve a number of objectives. One main strength of this approach is its ability to develop interdependence among students. According to Kagan (1992:18:3) the 'Jigsaw can be used in a variety of ways for a variety of goals'. The main goals that we want to achieve are to develop interdependence, to develop skills of autonomous learning and for students to develop a knowledge base for teaching and learning through group projects.

One model that the designers found useful for conceptualising appropriate online activities is the constructivist framework developed by Engestrom and Cole (1993, cited in Owen 2000: 4) building on the work of Vygotsky and developed to understand 'distributed knowledge as cultural-historic activity system' (Owen 2000: 4). The model has subsequently been adapted by Hewitt (2001) for use in 'The Activity Theory model for designing a Knowledge-Building Community'.

In addition, the work of Kagan (1992), and Bruffee (1999), on interdependence and independence was central to the design as was that of Kearney (1997, cited in Muirhead 2000) on active and self-directed learning online.

References:

Aronson, E., Blaney, N., Stephan, C., Sikes, J., Snapp, M. (1978). *The jigsaw classroom*, Beverly Hills, CA: Sage.

Bruffee, K.A. (1999). *Collaborative learning, Higher Education, Interdependence, and the Authority of Knowledge.* The Johns Hopkins University Press, Baltimore and London.

Hewitt, J. (2001). Fostering a Knowledge-Building Community in a Knowledge Classroom. *Paper presented at the annual meeting of the American Educational Research association*, April, Seattle.

Kagan, S. (1992). *Cooperative Learning*, Kagan Cooperative Learning, San Juan Capistrano, CA.

Muirhead, B. (2000). Enhancing Social Interaction in Computer-Meditated Distance Education. *Educational Technology & Society*, 3 (4).

Owen, M. (2000). Paradigms for curriculum design: The Design of Reflective, Situated, Collaborative Professional Development Supported by Virtual Learning Environments. *EURODL:* http://kurs.nks.no/eurodl/eurodlen/index.html.

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History

ORIGIN OF THE LEARNING DESIGN

The aim was for the teacher to provide the scaffolding rather than directing the process during the online tasks. We would argue that task-directed discussions (Lee et.al 1998 cited in Stenning et.al 1999: 3) provide the opportunity for the teacher to adopt a less stressful role and require the students to participate in a structured, process-oriented methodology, which will develop their skills to conduct and to drive the process themselves.

The task design provided initial direction and scaffolding with a gradual reduction by the teacher of this support over the following weeks. A key issue for the Online Jigsaw was that while students have access to the teacher, the teacher is not online to respond to every posted discussion within the expert topic group. This places the onus on the students to cooperate with one another. One of the main roles of the teacher was to provide closure in the face-to-face sharing sessions through joint evaluation with the students on the final shared text.

Reference:

Stenning, K., Dineen, F., Mayes, T., McKendree, J., John Lee, J., & Cox, R. (1999). Vicarious Learning from Educational Dialogue. In C. Hoadley & J. Roschelle (Eds.), *Proceedings of the Computer Support for Collaborative Learning (CSCL) 1999 Conference*, Dec. 12-15, Stanford University, Palo Alto, California. Mahwah, NJ: Lawrence Erlbaum Associates.

TIMES THE LEARNING DESIGN HAS BEEN USED

Not provided

Sequence: Creative writing_place - Mozilla Firefox

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http://www.lamscommunity.org/lamscentral/sequence?seq%5fid=34547

Go

Sequence Information

Sequence:	Creative writing_place Download
Description:	Creative writing - describing a place. Keywords:creative writing, place ,description Subject: English, creative writing Audience: anyone 12 -14 years to adult Run time: about 1 - 1.5 hours (or 45 minutes in class and the rest completed out of class) Delivery Mode: in class, but if chat is scheduled can be run as an out of class activity Resources: no extra files required. Outline of Activities:] Aim: To develop creative and reflective writing skills. Learners write about a place of interest using stream of consciousness writing and other techniques. Students comment on the work of others in their small groups. Students then submit a more considered piece of work for assessment or consideration by the teacher/tutor only. Outcomes: ▪ Stream of consciousness writing; ▪ Example of 360 degree description of a place; ▪ Production of a short piece of well drafted creative writing; ▪ Appreciation of the drafting process when writing; ▪ Discussion of an example by a published author; ▪ Constructive critique of others' work – as small group work. Prerequisites or any previous study required: Guidelines for discussing the creative writing of other students Full description in the pdf file that accompanies this sequence.)(
License:	Attribution-Noncommercial-ShareAlike
Support Files:	**Name** / **Size (bytes)** / **Date Uploaded** creative_writing_place.pdf / 124642 / 10/06/05 08:38 AM
Sharing with:	Everyone in **Public**
Status:	**Active**
Average Rating:	(4.33). Based on 3 reviews. 1 - Poor Rate
Number of downloads:	237 times
Authored By:	 Robyn Philip

Is global warming happening?

Sequence title: GlobalWarming

Description: This LAMS sequence encourages pupils to investigate and evaluate the evidence for global warming through Internet research, online collaborative activities and creating a presentation about their findings. Pupils begin by reviewing a number of websites that describe global warming, and sharing ideas about whether climate change has occurred in the past. Pupils then break into small groups, and consider the features of a reliable website. They then search for websites about global warming (with a focus on evaluating website content for bias and clarity) and share their findings with their group. The final task involves pupils using a template to create their own global warming presentation about their findings. An optional extension task allows pupils to investigate climate change issues in recent news.

Target audience: Year 9

Run time: Normal classroom lesson

Learning environment: Class of 20 to 30

Key stage 3 Scheme of Work: Unit 9G Environmental chemistry
(see page 6 of www.standards.dfes.gov.uk/pdf/secondaryschemes/sci9g.pdf)

Learning Objectives:
Pupils should learn:
- to use secondary sources to answer scientific questions
- how to decide whether evidence is good enough to answer a question
- to evaluate evidence put forward by others

Scientific enquiry:
Pupils should learn:
- to describe how evidence supports or doesn't support a conclusion

Learning Outcomes:
Pupils:
- identify key trends in data and draw conclusions from these
- explain how they used the evidence to draw conclusions
- recognise where data is not sufficiently strong to support conclusions or can be interpreted in another way

Vocabulary: Global warming, climate change, bias, evidence, fossil fuels, carbon dioxide, atmosphere

Resources: Computer and Internet access per pupil or pair of pupils (this class does not require a science lab environment). PowerPoint (or similar slideshow application).

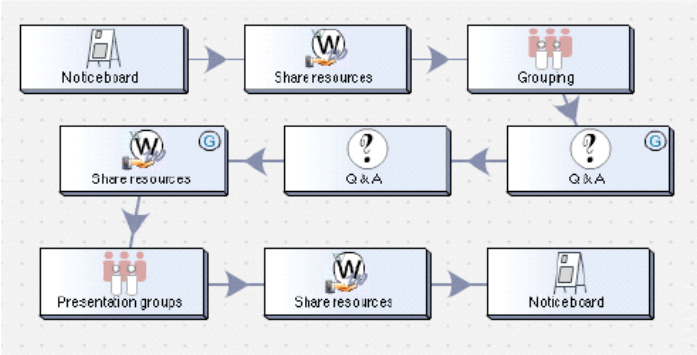


Figure 1: LAMS authoring view of ' Is global warming happening?'

Lesson outline

1. Introduction of the topic to be investigated and outline of the lesson activities.
   Tool: Noticeboard

2. Pupils are directed to three websites that define global warming using text and animations. The teacher may wish to use other resources to explain global warming at this point. The second option (BBC News – In Depth) is less simplistic and would suit more advanced pupils.
   Tool: Share Resources

3. Pupils are placed into groups of about seven (based on class number) to limit the number of answers they have to read in the next activity. The grouping tool can be removed if the teacher wishes answers from the whole class to be available.
   Tool: Grouping

4. Pupils are asked if climate change has occurred before on earth, and to describe that climate change.
   Tool: Q & A (grouped)

5. Pupils are asked to think about two things that help to make a website a reliable source.
   Tool: Q & A

6. Pupils get to search for websites that provide clear, unbiased information about global warming. They can add a new website to the Share Resources page for others in their group to view. They have to state why it is a good website. This is a good opportunity for the teacher to walk around the class and discuss bias and agenda driven websites versus simple factual websites as the pupils are searching the web. Check that they are using search tools effectively.
   Tool: Share Resources (grouped)

Pattern: COLLABORATIVE EVALUATION
Context: A group of learners need to understand the principles behind a particular technique so that they can progress to become able to select particular implementations for others and to be able to take part in producing further examples themselves. Such learners need to develop an appreciation of the different forms available, the structure they have and why particular forms are suitable for some tasks.
Body: The contradictory challenges in this are the need to understand the structures that have been used alongside the need to see new ways to do things. The breadth of what is available needs to be examined alongside understanding how the software might apply when used in depth. It is important to balance individual views with group views and established positions from literature and other sources.
Solution: Building a collaborative evaluation enables the sharing of the work load and brings in the views of others to enable testing of consensus and variation in the depth that each individual may look at a particular example.
It is associated with patterns for LEARNING THROUGH DISCUSSION, COLLABORATIVE LEARNING and NETWORKED LEARNING PROGRAMME. It builds on patterns for DISCUSSION GROUPS, DISCUSSION ROLE, FACILITATOR, DISCURSIVE TASK, SEARCH, and CONSENSUS FORMING.

Figure 8 Collaborative Evaluation as a Pattern

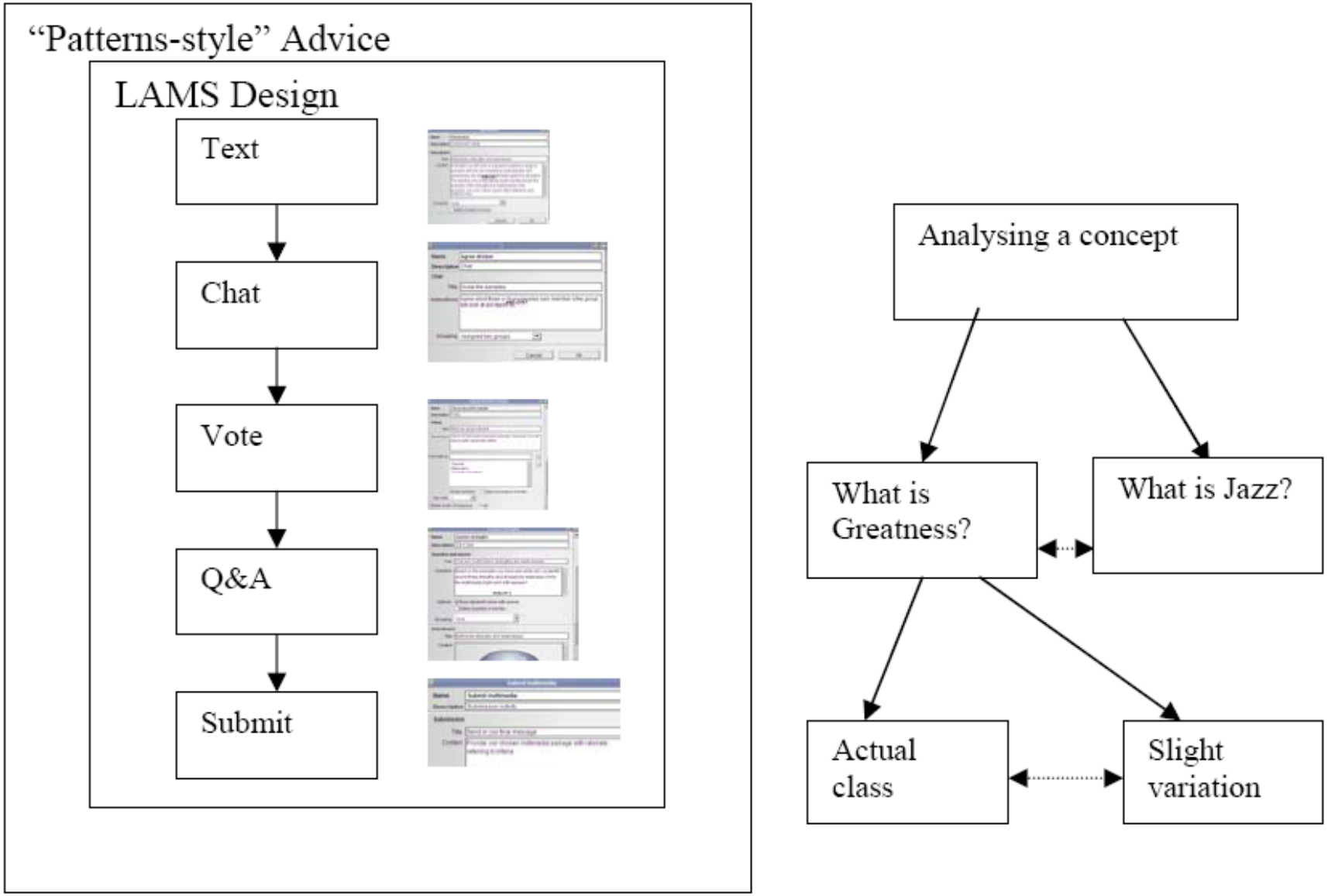


Figure 10: LAMS Authoring Express – representation of analysing a concept

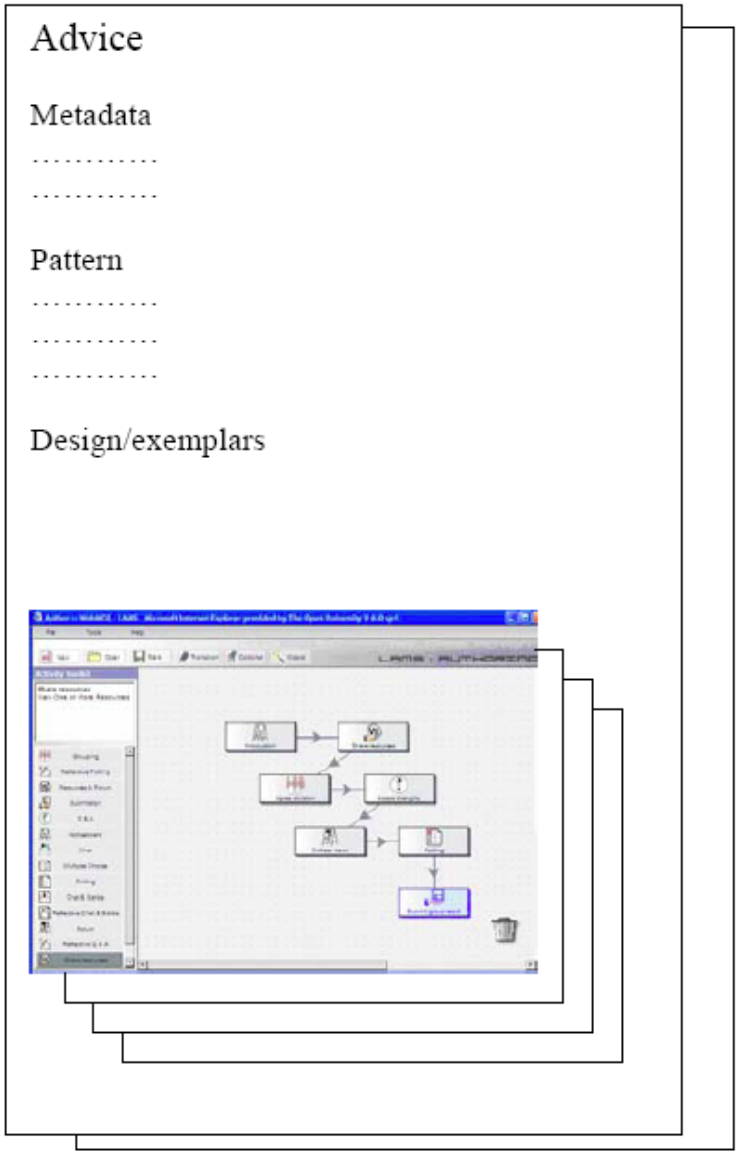
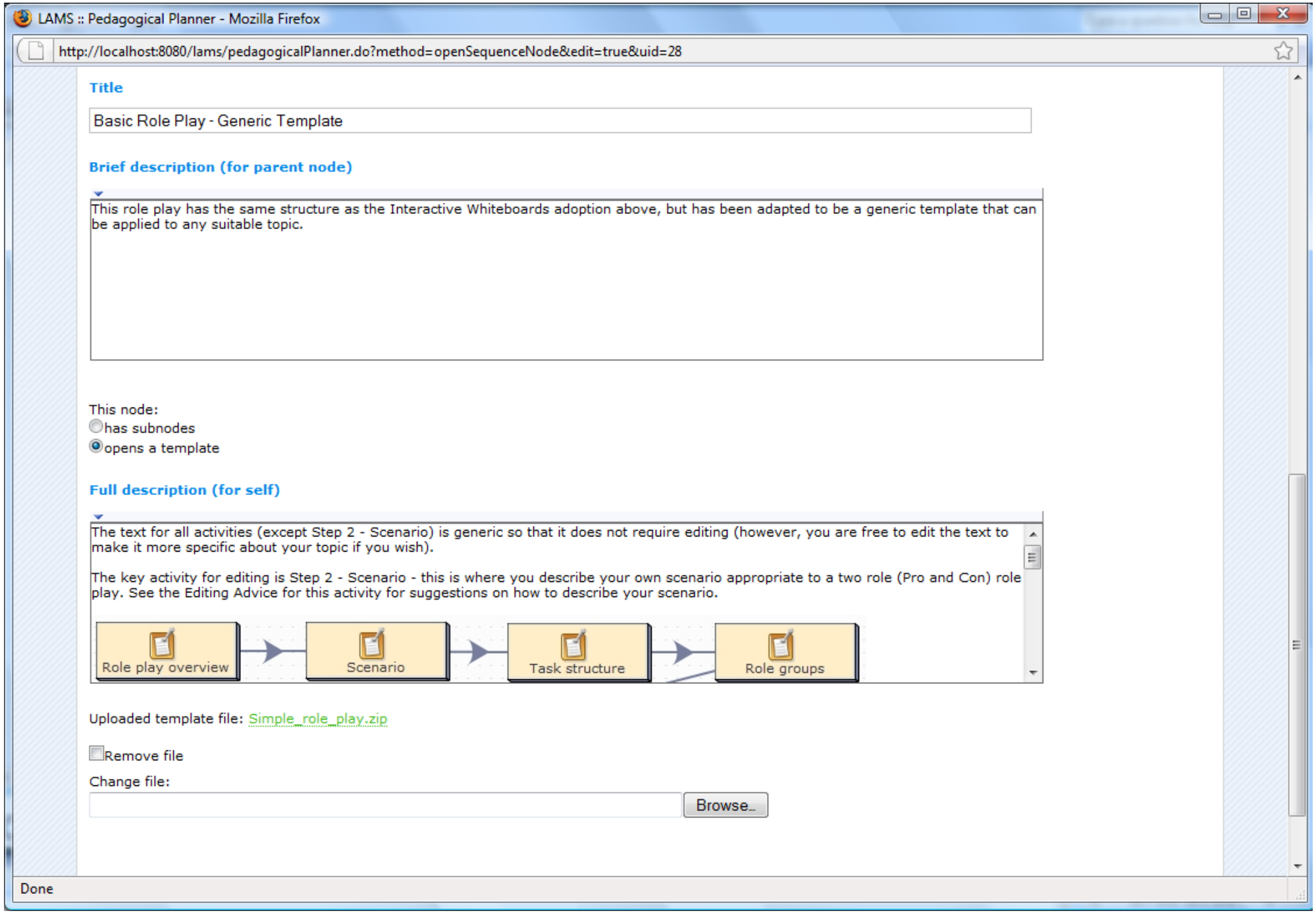


Figure 11: Framework bringing together LAMS and Patterns

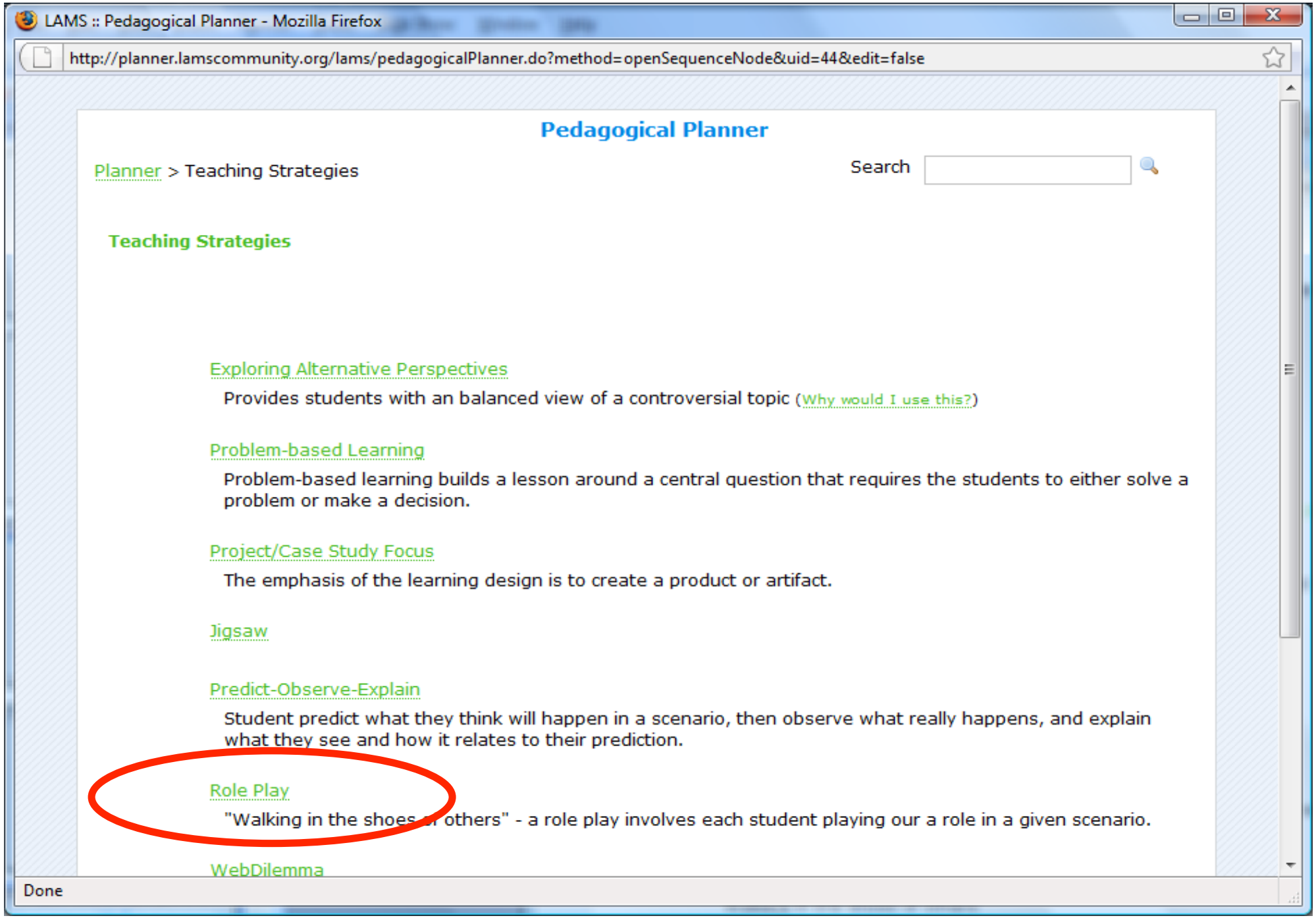
LAMS Activity Planner

- New system “above” LAMS for selecting pre-built templates of good activities, together with new simplified editor
  - Available as commercially licensed software (not OSS) – to help support ongoing OSS LAMS development

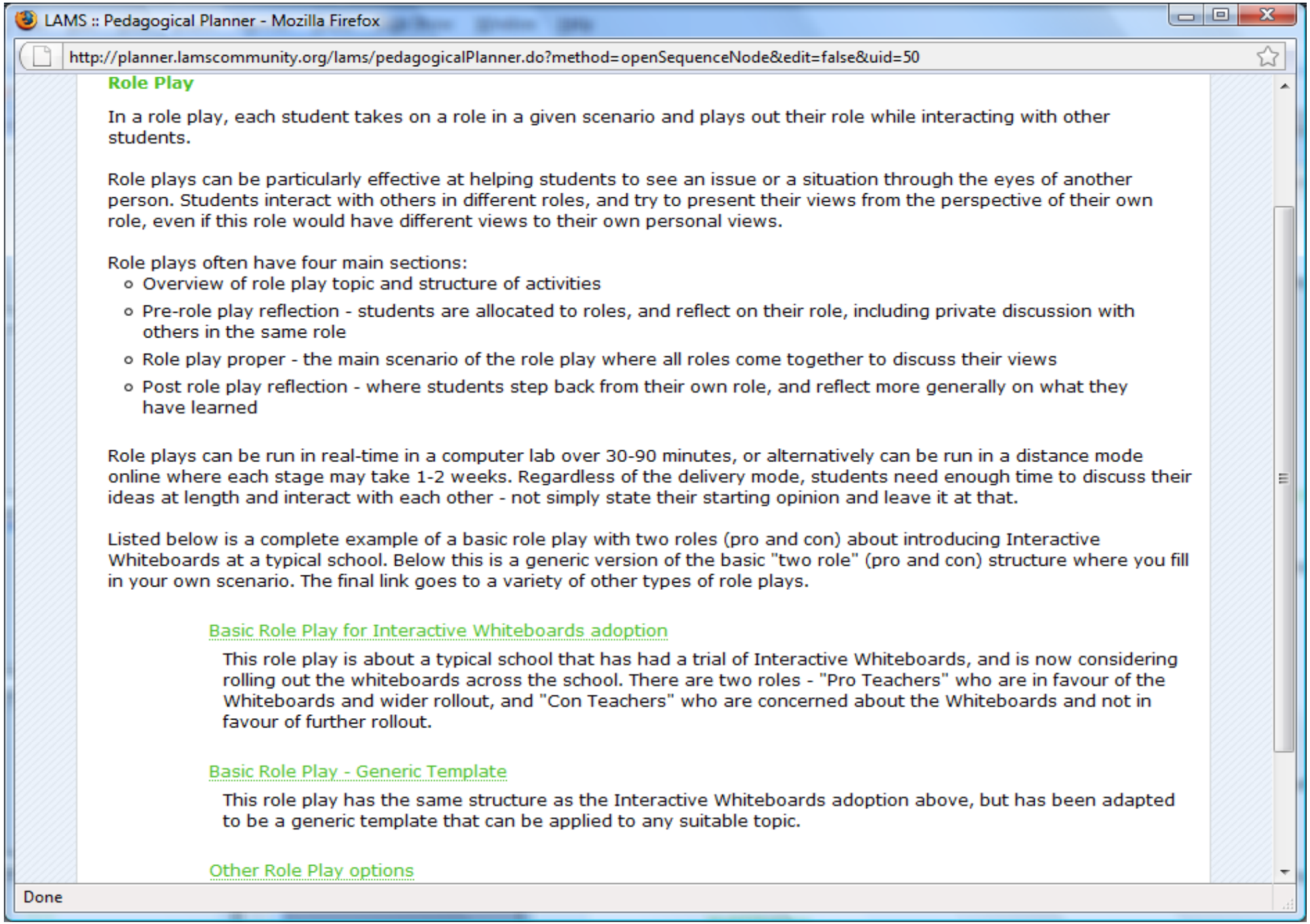
- The Activity Planner provides features for structuring and editing the advice and templates provided
  - So any expert designer can create their own “planners”



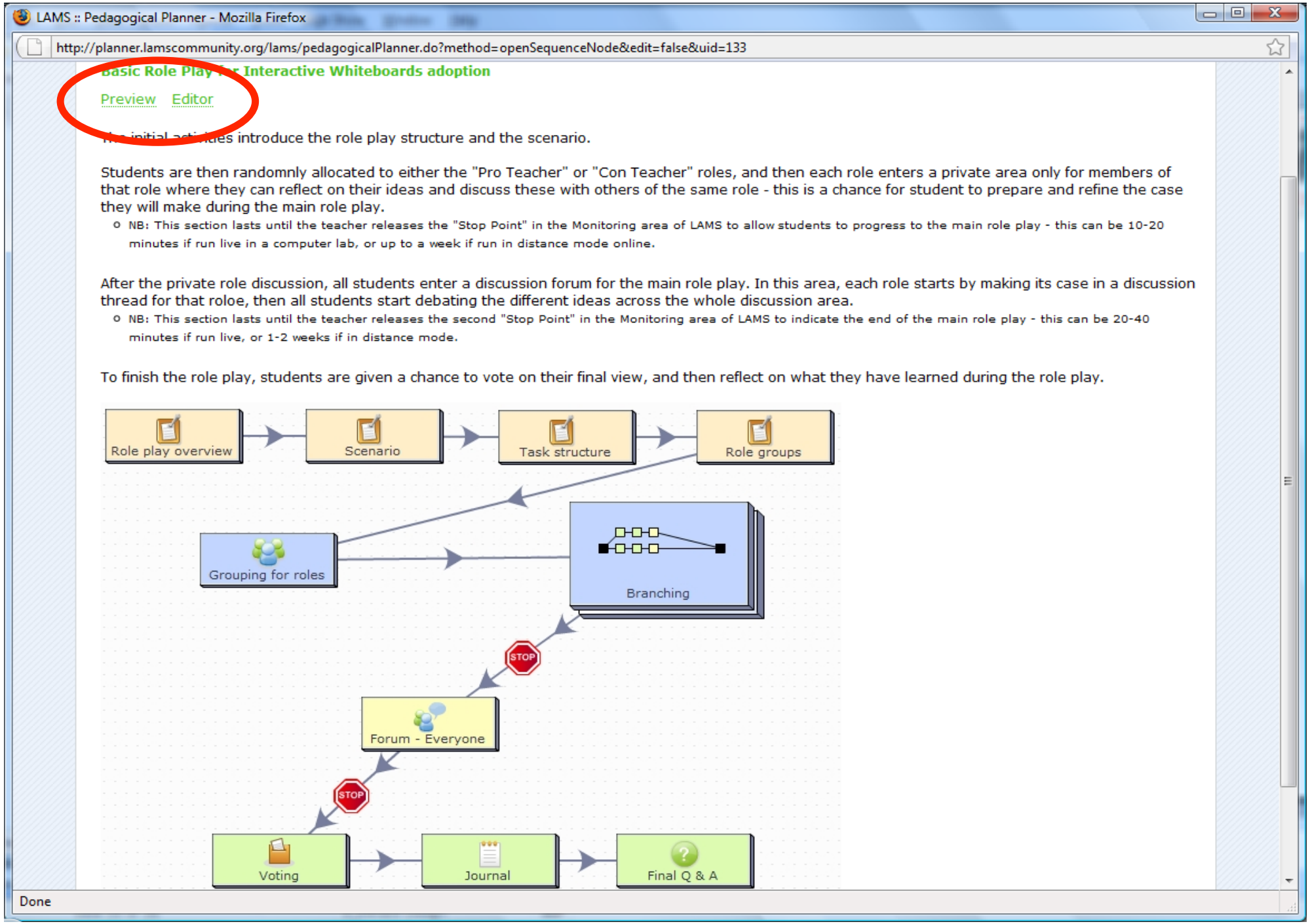
Background: Creating an Activity Planner - editing a “node” + adding a sequence



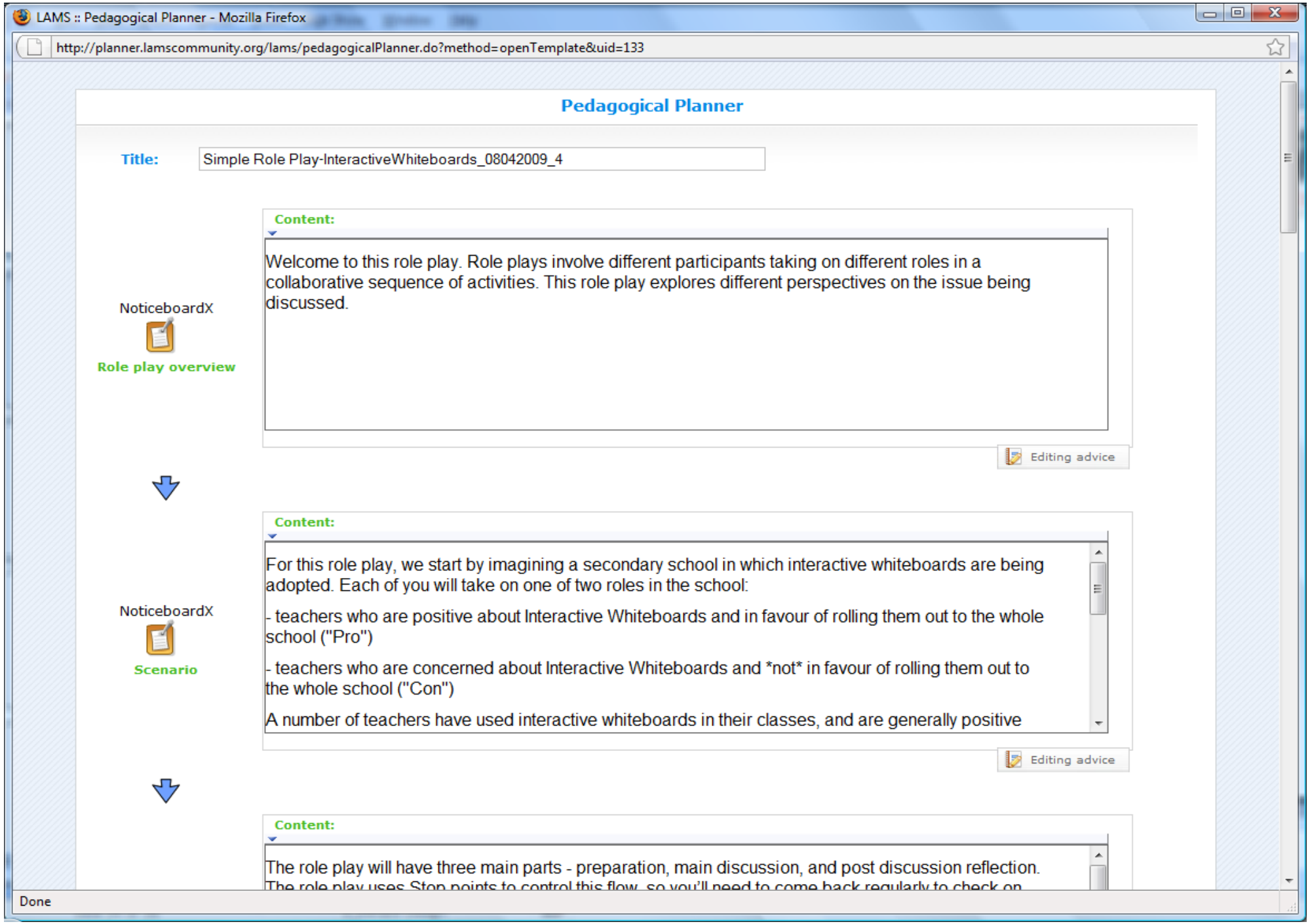
Selecting from among different pedagogical approaches



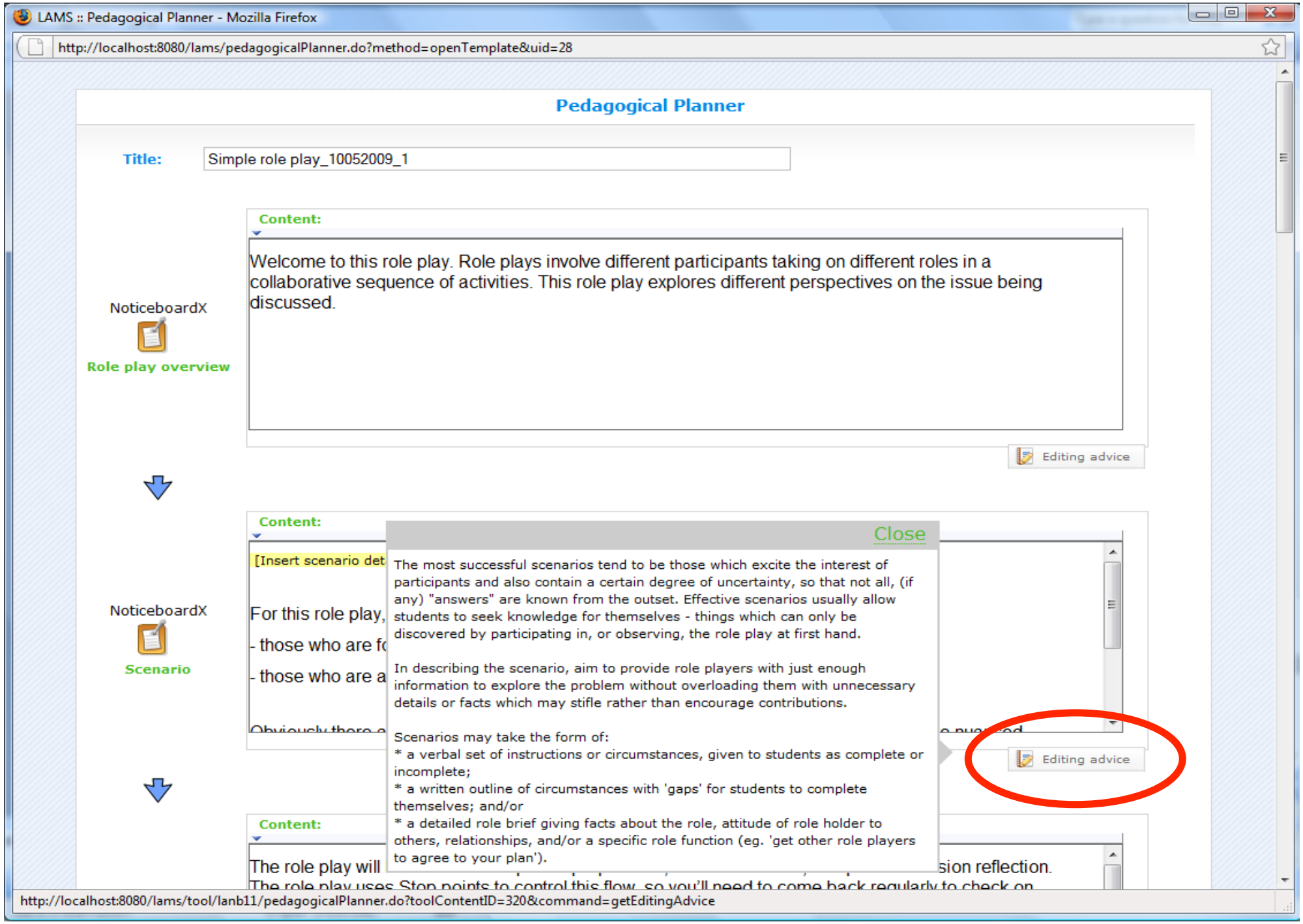
Overview of an approach (role play), with links to example & templates



Specific Role Play example, with links to student Preview & simple editor



Specific Role Play example - Simple one page editor for content in the template



One page editor showing contextual help via “Editing Advice”

LAMS :: Pedagogical Planner - Mozilla Firefox

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Pedagogical Planner

Planner > Teaching Strategies > Predict-Observe-Explain

Search

Predict-Observe-Explain

Predict-Observe-Explain helps students to articulate what they think will happen in a scenario based on their existing ideas/theories. By recording this prediction, it helps student to compare it to their later observations.

Student then observe the scenario and describe what they see.

Students then try to explain what they have observed, and how it relates to their initial prediction. If their prediction was wrong, they are encouraged to explore why it was wrong.

Predict-Observe-Explain is particularly useful in science teaching and other contexts that allow for hypothesis formulation and testing by students. It can be valuable in developing metacognitive skills as students reflect on why they make incorrect predictions.

P-O-E Examples - Hammer and Feather on the Moon

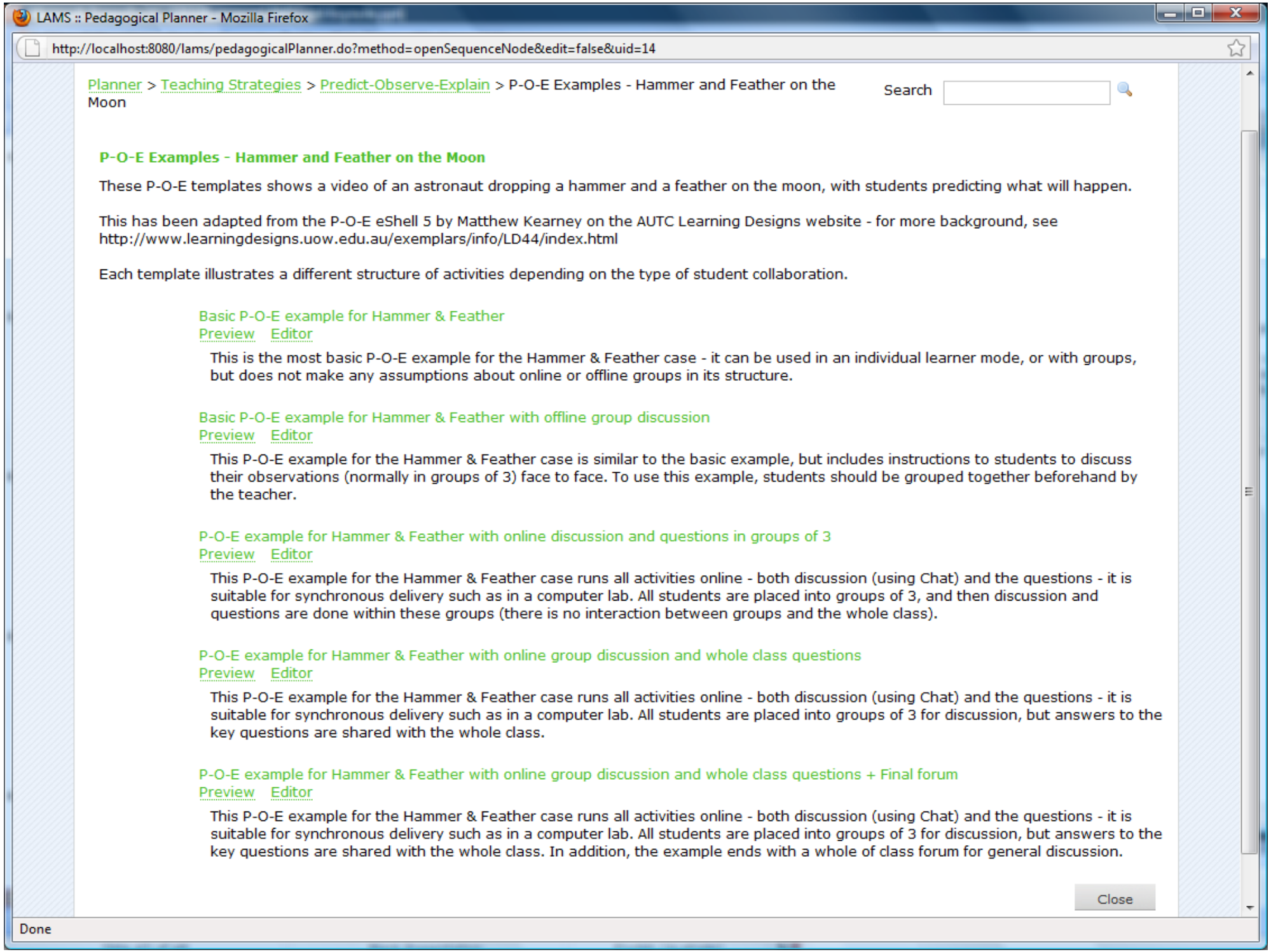
This set of P-O-E examples are based on an astronaut dropping a Hammer and a Feather on the moon. They can be used immediately (no editing is required).

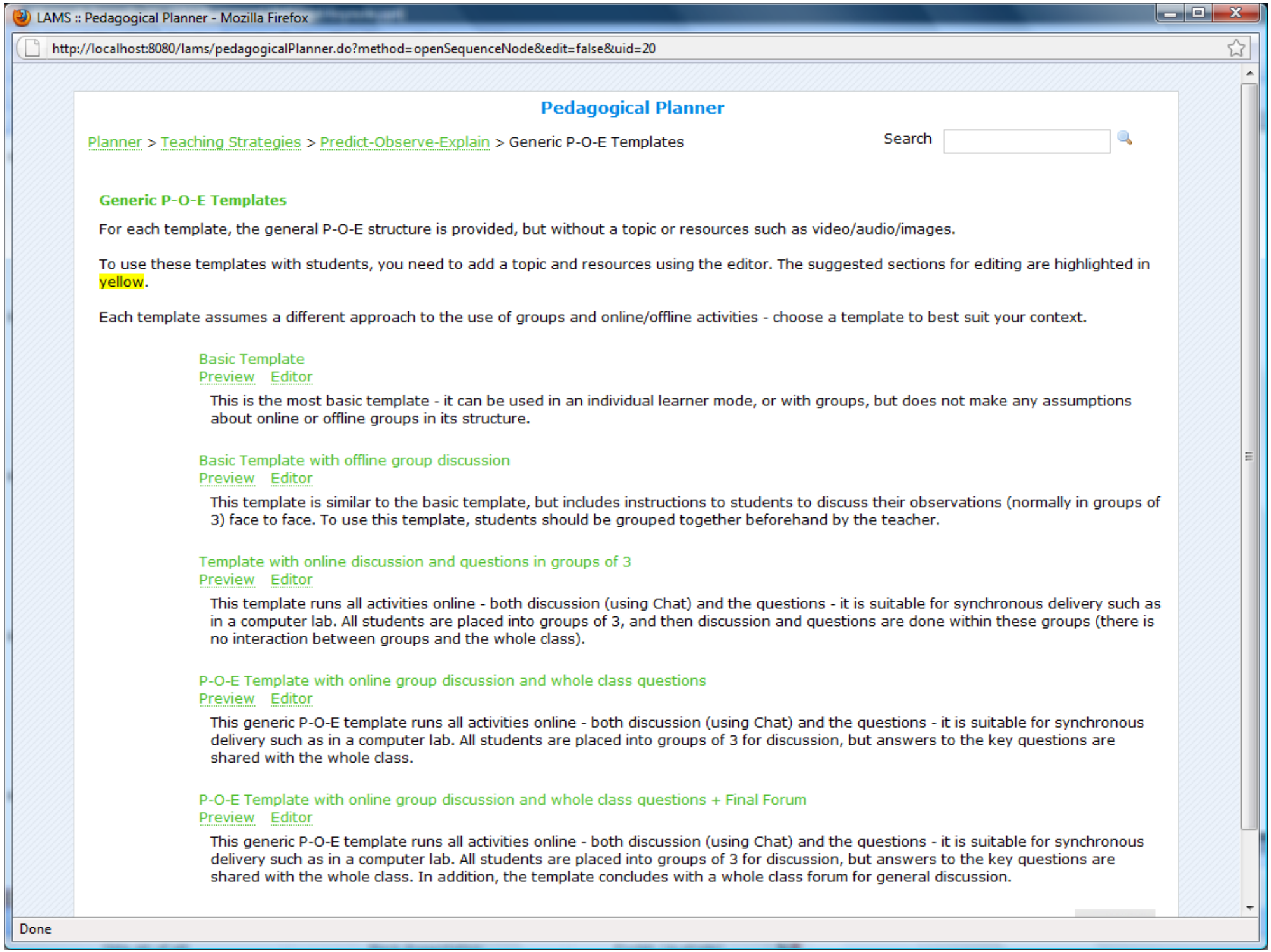
Generic P-O-E Templates

This is a set of generic P-O-E template that need a topic and resources added to make them ready to use.

Close

Done


LAMS :: Pedagogical Planner - Mozilla Firefox
http://localhost:8080/lams/pedagogicalPlanner.do?method=openSequenceNode&edit=false&uid=14
Planner > Teaching Strategies > Predict-Observe-Explain > P-O-E Examples - Hammer and Feather on the Moon
Search
P-O-E Examples - Hammer and Feather on the Moon
These P-O-E templates shows a video of an astronaut dropping a hammer and a feather on the moon, with students predicting what will happen.
This has been adapted from the P-O-E eShell 5 by Matthew Kearney on the AUTC Learning Designs website - for more background, see http://www.learningdesigns.uow.edu.au/exemplars/info/LD44/index.html
Each template illustrates a different structure of activities depending on the type of student collaboration.
Basic P-O-E example for Hammer & Feather
Preview Editor
This is the most basic P-O-E example for the Hammer & Feather case - it can be used in an individual learner mode, or with groups, but does not make any assumptions about online or offline groups in its structure.
Basic P-O-E example for Hammer & Feather with offline group discussion
Preview Editor
This P-O-E example for the Hammer & Feather case is similar to the basic example, but includes instructions to students to discuss their observations (normally in groups of 3) face to face. To use this example, students should be grouped together beforehand by the teacher.
P-O-E example for Hammer & Feather with online discussion and questions in groups of 3
Preview Editor
This P-O-E example for the Hammer & Feather case runs all activities online - both discussion (using Chat) and the questions - it is suitable for synchronous delivery such as in a computer lab. All students are placed into groups of 3, and then discussion and questions are done within these groups (there is no interaction between groups and the whole class).
P-O-E example for Hammer & Feather with online group discussion and whole class questions
Preview Editor
This P-O-E example for the Hammer & Feather case runs all activities online - both discussion (using Chat) and the questions - it is suitable for synchronous delivery such as in a computer lab. All students are placed into groups of 3 for discussion, but answers to the key questions are shared with the whole class.
P-O-E example for Hammer & Feather with online group discussion and whole class questions + Final forum
Preview Editor
This P-O-E example for the Hammer & Feather case runs all activities online - both discussion (using Chat) and the questions - it is suitable for synchronous delivery such as in a computer lab. All students are placed into groups of 3 for discussion, but answers to the key questions are shared with the whole class. In addition, the example ends with a whole of class forum for general discussion.
Close
Done


LAMS :: Pedagogical Planner - Mozilla Firefox
http://localhost:8080/lams/pedagogicalPlanner.do?method=openSequenceNode&edit=false&uid=20
Pedagogical Planner
Planner > Teaching Strategies > Predict-Observe-Explain > Generic P-O-E Templates
Search
Generic P-O-E Templates
For each template, the general P-O-E structure is provided, but without a topic or resources such as video/audio/images.
To use these templates with students, you need to add a topic and resources using the editor. The suggested sections for editing are highlighted in yellow.
Each template assumes a different approach to the use of groups and online/offline activities - choose a template to best suit your context.
Basic Template
Preview Editor
This is the most basic template - it can be used in an individual learner mode, or with groups, but does not make any assumptions about online or offline groups in its structure.
Basic Template with offline group discussion
Preview Editor
This template is similar to the basic template, but includes instructions to students to discuss their observations (normally in groups of 3) face to face. To use this template, students should be grouped together beforehand by the teacher.
Template with online discussion and questions in groups of 3
Preview Editor
This template runs all activities online - both discussion (using Chat) and the questions - it is suitable for synchronous delivery such as in a computer lab. All students are placed into groups of 3, and then discussion and questions are done within these groups (there is no interaction between groups and the whole class).
P-O-E Template with online group discussion and whole class questions
Preview Editor
This generic P-O-E template runs all activities online - both discussion (using Chat) and the questions - it is suitable for synchronous delivery such as in a computer lab. All students are placed into groups of 3 for discussion, but answers to the key questions are shared with the whole class.
P-O-E Template with online group discussion and whole class questions + Final Forum
Preview Editor
This generic P-O-E template runs all activities online - both discussion (using Chat) and the questions - it is suitable for synchronous delivery such as in a computer lab. All students are placed into groups of 3 for discussion, but answers to the key questions are shared with the whole class. In addition, the template concludes with a whole class forum for general discussion.
Done

LAMS :: Pedagogical Planner - Mozilla Firefox

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Pedagogical Planner

Planner > Introducing New Ideas

Search

Introducing New Ideas

This planner contains different types of activities to accompany the introduction of new ideas - such as in a lecture or talk. The activities can be for:

- Before
- During or
- After

the presentation of new ideas, or a combination (such as both before and during a lecture).

Many of the activities involve students considering their own preconceptions of an idea as part of the process. The underlying educational rationale for this strategy is that helping students to articulate their existing ideas will enhance their subsequent engagement with the lecture/talk.

In some activities, student may articulate misconceptions which are useful for teaching the new idea. Explaining the reasons for misconceptions may aid student learning.

The activities range from quick simple tasks that take a few minutes, to longer combinations of tasks for before, during and/or after the lecture/talk. Different types of activities are presented (eg, "Identifying Misconceptions", "Seeing Two Sides", etc), and within each activity type, different delivery modes are offered where relevant (eg, before, during and/or after a lecture/talk).

Once an activity selected, you will be provided with a template which contains a pre-built structure of student tasks, incorporating general instructions to students on how to navigate the tasks. To use the template, you will need to insert brief questions and content about your particular idea.

Once you have customised the template to your idea, you are ready to use it with your students (or share it with colleagues!). You can also preview your customised template to see how it will appear to your students (and easily change it if required).

Types of Activities

Different activities types to accompany new ideas.

Close

Done

LAMS :: Pedagogical Planner - Mozilla Firefox

http://localhost:8080/lams/pedagogicalPlanner.do?method=openSequenceNode&edit=false&uid=61

Pedagogical Planner

Planner > Introducing New Ideas > Types of Activities

Search

Types of Activities

Listed below are different types of activities that can be used to introduce new ideas. After choosing a general activity type, you will be presented with specific examples of the approach.

Identifying Misconceptions

These activities ask students to articulate their existing views of an idea, with a focus on trying to elicit misconceptions or misunderstandings.

Reviewing a Key Resource

These activities ask students to review a key resource on the new idea such as an article, website or other resource. The focus is on building prior knowledge of the idea before the lecture/talk.

Personal Reflection

These activities encourage students to reflect privately on their existing views and ideas, without seeing the ideas of other students (or sharing their own views with others).

Relating to Contemporary Events

These activities focus on contemporary events that illustrate the new idea.

Responding to a Provocative Idea

These activities challenge students with a provocative idea, and ask them to articulate their own views in response.

Seeing Two Sides

These activities present two different views of an idea (often opposing views) and ask students to respond to both sides (often by realising they agree, at least in part, with both views).

Finding a Hidden Bias

These activities present a resource about the idea that contains a hidden bias, and asks students to identify and explain this bias.

Explaining a Striking Statistic

Done

LAMS :: Pedagogical Planner - Mozilla Firefox

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Pedagogical Planner

Planner > Introducing New Ideas > Types of Activities > Identifying Misconceptions

Search

Identifying Misconceptions

Students often come to new ideas with misconceptions or misunderstandings, especially if the idea is discussed in general society. Often the challenge of teaching new ideas such as "What is Psychology?", "How will climate change affect the world?" or "Why do wars happen?" is not simply outlining what is known about each idea, but rather engaging with the existing ideas already held by students.

The "Identifying Misconceptions" activities are designed to elicit students' existing views on an idea. This is useful in its own right to help students engage with the idea, and also to provide a point of comparison between students' initial ideas and how their ideas might change after the lecture/talk.

But going further, these activities can be most useful when students articulate misconceptions or misunderstandings. This gives teachers valuable illustrative material for a lecture/talk - teacher can show examples of misunderstandings (eg, using a projector) to help clarify key concepts. To avoid embarrassment, student responses for this activity should be shown anonymously.

Students often find it more engaging seeing their own ideas (especially their misunderstandings) explored and refined, rather than simply being told "the answers".

Open Questions

Identifying Misconceptions activity using open questions

Voting (Categories)

Identifying Misconceptions activity using student voting

Voting (Agree/Disagree)

Identifying Misconceptions activity using student voting on agree/disagree statements

Combination of Voting (Agree/Disagree) & Open Question

Identifying Misconceptions activity using initial voting on an agree/disagree statement, followed by an open question to explore views in more detail.

Combination of Open Question & Voting

Identifying Misconceptions activity using an initial open question, followed by a special voting task to choose from most common responses to open question.

Close

Done

LAMS :: Pedagogical Planner - Mozilla Firefox

http://localhost:8080/lams/pedagogicalPlanner.do?method=openSequenceNode&edit=false&uid=63

Planner > Introducing New Ideas > Types of Activities > Identifying Misconceptions > Open Questions

Search

Open Questions

This activity has 7 steps. Those highlighted in yellow require you to edit the template to apply it to your particular idea.

Step 1 - Noticeboard: The activity starts with a page that explains the sequence of activities to students so they understand what is coming. No specific content about the idea is needed here, so no editing of the template is required.

Step 2 - Noticeboard: This involves a simple text page where you provide some information about the idea to be considered. In most cases, a few brief paragraphs is all that is required to introduce the background to the idea, but without giving away too much that would compromise the subsequent open questions.

Step 3 - Notebook: Before presenting the open questions, it is useful to have students briefly consider their own existing views of the idea using their private notebook (which cannot be seen by other students). Reflecting here will help to:
(a) engage students in considering the topic,
(b) activate their personal interest in this topic, and
(c) prepare them for putting forward their own views in subsequent questions.
You should choose a fairly general statement for students to reflect on here, and encourage them to keep their reflections fairly brief.

Step 4 - Question & Answer: The first of three open questions for students to consider. After answering the question, they have a chance to review their answer to ensure they are happy with it (or go back and edit it), and then after they confirm their answer, it is posted to a page that collates the answers for all students, at which point students are encouraged to reflect on the answers of their peers. All student answers are presented anonymously to avoid possible embarrassment if a particular answer is used for illustration by the teacher. The first question should normally be fairly general and open. NB: Students can return to this task (and any others) at any future time to review the latest answers.

Step 5 - Question & Answer: The second open question. The presentation is the same as the first. The topic of this question should normally be a more specific question about a key aspect of the topic that the teacher wishes to draw out in the lecture/talk.

Step 6 - Question & Answer: The third and final open question, with the same presentation as the first two. The topic of this question could be another specific question on a different key aspect of the topic. Alternatively, the question might take a negative form or opposing viewpoint to draw out different types of student responses.

Step 7 - Notebook: Having answered the three open questions, the sequence concludes with students being given an opportunity to reflect on the questions and the answers of their peers, particularly the answers of other students which may interest or surprise them. Students are also asked to reflect on whether any of their ideas have already changed or expanded as a result of seeing the views of their peers. This Notebook is worded in a generic way so that it does not require editing, although it can be edited to apply it specifically to the idea if desired.

To see how this sequence of activites appears to students (but without any specific content), click the Preview button.
When you are ready to edit the template to insert you specific content, click the Template link.

Template
Preview Editor

Template for Identifying Misconceptions - Open Questions

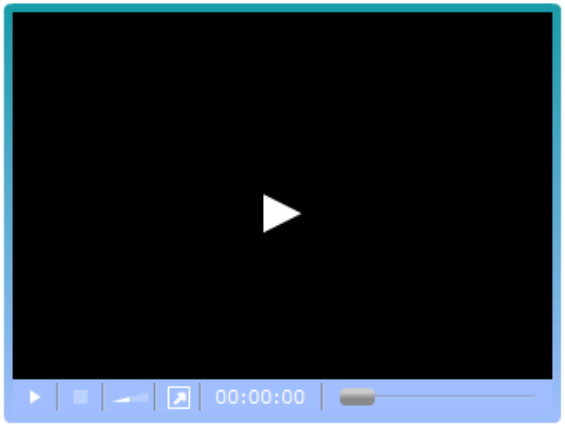
Done

LAMS :: Pedagogical Planner - Mozilla Firefox

http://planner.lamscommunity.org/lams/pedagogicalPlanner.do?method=openSequenceNode&edit=false&uid=173

E-pedagogies

New ways of teaching and learning are emerging with the development of the ICT.
These activities are focused on showing the teachers different educational approaches. The planners below are samples of the potential of LAMS adaptability. Teachers can download the planners and change them to adapt the sequences to the methodology applied in their classrooms.



Most of the e-pedagogies in this planner are explained in Weller, Martin (2007) *Virtual Learning Environments: Using, choosing and developing your VLE*, Routledge.

Problem-Based learning

Preview Editor

Problem-based learning is an approached fundamentally centred on the students. The main objective for the students is to solve a proposed problem or scenario. Most of the times this approach is collaborative that means that students have to find the solutions discussing among them and reflecting about their own experiences. It is necessary in this approach to use communication tools, like forum or chat, and informative ones, like share resources or noticeboards.

Done

LAMS :: Pedagogical Planner - Mozilla Firefox

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http://localhost:8080/lams/pedagogicalPlanner.do?method=openSequenceNode&uid=87&edit=false

Pedagogical Planner

Planner > Topic-based activities > Introductory Psychology

Search

Introductory Psychology

Listed below are typical topics covered in an Introductory Psychology course, with several sets of activities for each topic.

Each set of activities is designed for use with a class of students (10-30), and is equivalent to approximately one hour of instruction. Activities involve a mixture of individual and collaborative tasks. Activities may be conducted live by a class in a computer lab (sychronously), or asynchronously over a week period. Activities can be used to as either a supplement to, or substitute for, small group teaching.

To view a set of student activities, choose a particular example, then click "Preview". Activities are ready to use "as is", or alternatively instructors can edit the text of the activities using the "Editor" option. For instructors who wish to edit the whole structure of the activities, this can be done via the "Full Author" option at the bottom of the "Editor" screen.

Introduction & History of Psychology

Introductory activities and history of psychology activities.

Research Methods & Statistics

Activities about the research methods used in Psychology, including the use of statistics.

The Brain & Nervous System

Activities about the function of the brain and nervous system.

Sensation & Perception

Activities about how we experience sensations from the world around us.

Learning & Behaviour

Activities about behaviour and how learning takes place.

Developmental Psychology

Activities about different types of development (physical, cognitive, emotional) and their stages.

Intelligence & Individual Differences

Activities for exploring intelligence and individual differences.

Social Psychology

Activities about social interactions of individuals and groups

Done

LAMS :: Pedagogical Planner - Mozilla Firefox

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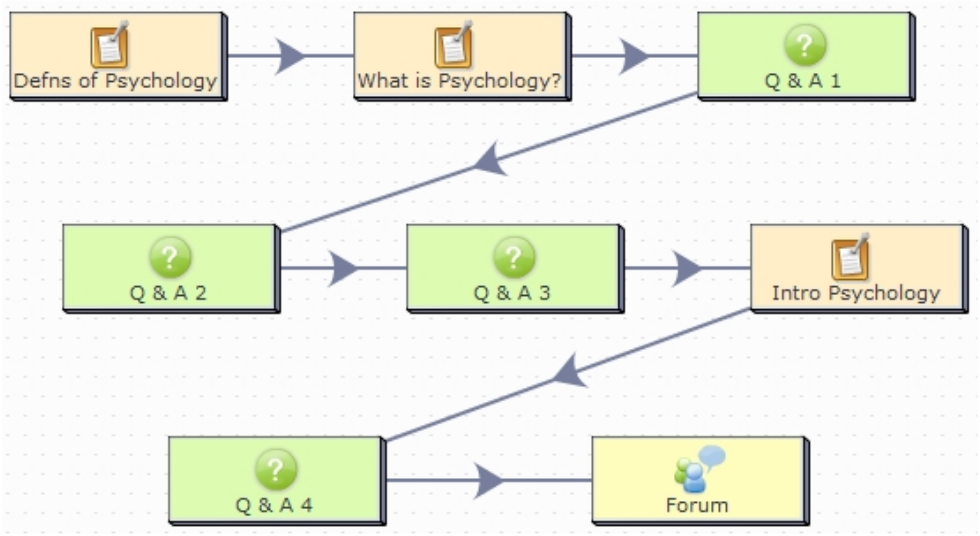
Introduction & History of Psychology

The following activities cover introductory tasks at the start of a course, as well as activities related to the history of psychology.

What is Psychology?

Preview Editor

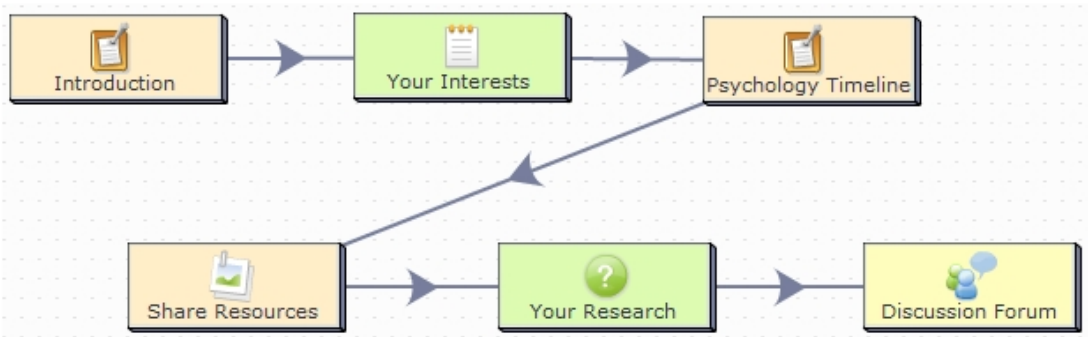
A set of activities to help students understand different definitions of Psychology, and reflect on their own pre-conceptions of psychology in relation to their definitions. It also helps student reflect on their approaches to studying Introductory Psychology.



History of Psychology - Timeline

Preview Editor

A set of activities in which students review a timeline of the history of Psychology, then choose one area of interest to them to research further, then share their research findings with their peers. The activities conlcude with a Forum for further discussion.



Done

Types of Advice

- So… what can we learn from these different types of advice? Here are some reflections:

(1) There are different “levels” of advice in terms of granularity of the educational process

  - Some advice relates to the design of whole courses (and even higher level issues such as how an institution operates)
  - Some advice relates to the selection/editing/running of designs at the level of a class/week (“unit or module” level)
  - Some advice relates to micro-level decisions within designs, such as how to phrase (or rephrase) a single questions

Types of Advice

(2) There are various kinds of practical advice

- Editing/Authoring advice, eg:
  - How to use features of software
  - How to much text to use per activity
- Implementation/“running” advice, eg:
  - How to manage elapsed time (especially in asynchronous contexts)
  - How to manage student groups and groupwork

Types of Advice

(3) Pedagogical advice comes in several flavours

- There is the pedagogy of the chosen design, eg, the theory behind the structure (PBL, role play, etc)
- There is discipline-based pedagogical advice – how to link between topics, the order of topics, choice of examples, etc
  - Which if combined with the technology suggests TPACK
- There is pedagogical advice about how to facilitate forums (ie, teacher actions at run time)

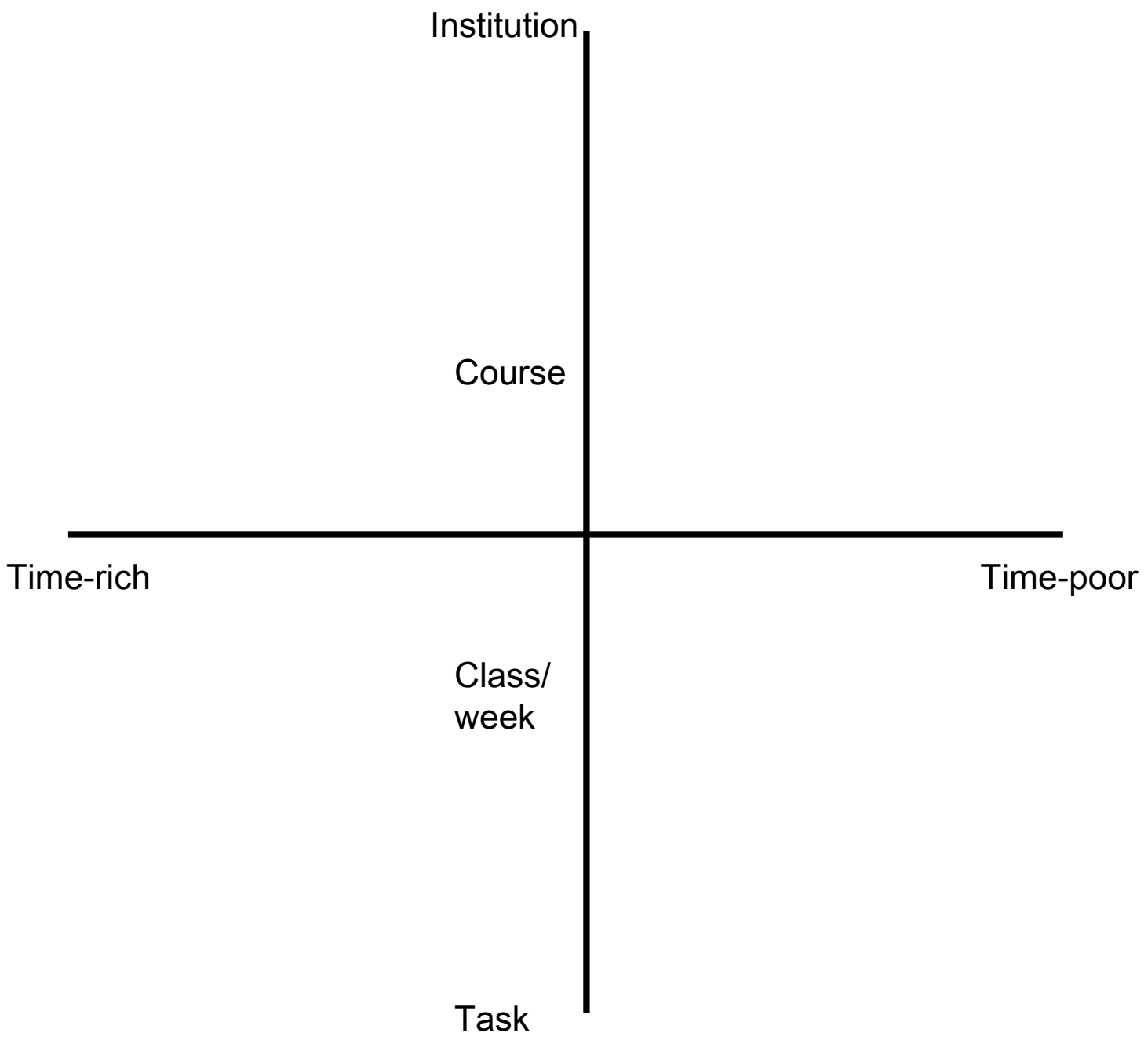
Types of Advice

(4) Effective advice may vary with context and time

- Advice appropriate to a teacher of a well established course may be different to advice for a new/redeveloped course
  - And advice may be different between a successful course and a problematic course (or course element)
- Advice that may be ideal for a teacher with considerable time for preparation may be different to the ideal advice for a rushed teacher preparing a class on Sunday night
- A teacher may not be “ready” to hear certain advice until they have experienced certain teaching situations or problems
  - Some advice depends on professional development

A Differential Model of Advice

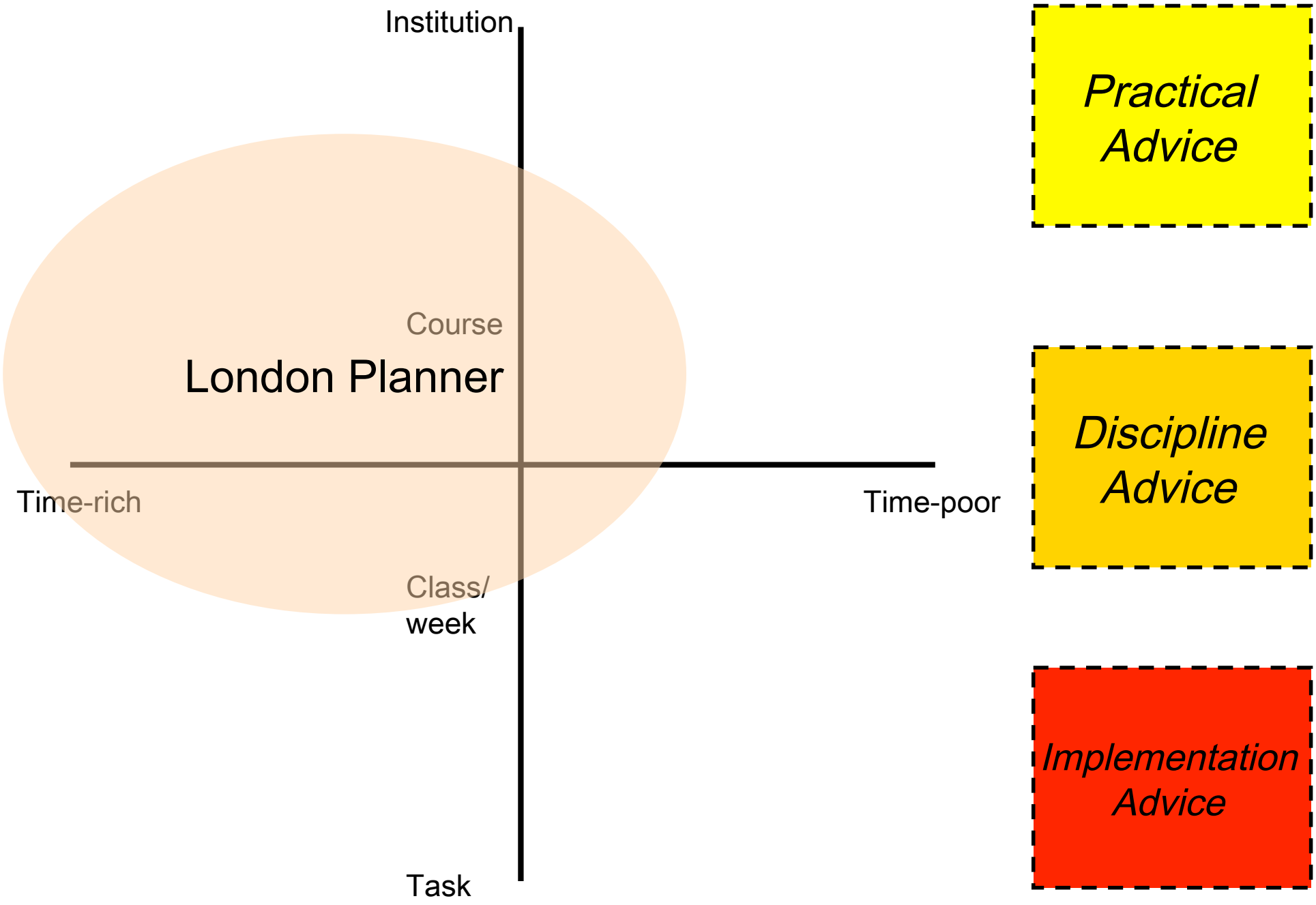
- How to put this all together?
  - I think we can put aside practical advice – this will always be needed, but isn't central to a theoretical model of advice
  - I think discipline advice is important, but rarely generalises (at least, not in the way that generic approaches like PBL, role plays can generalise across disciplines), so we can treat it separately
  - I think we can separate authoring/editing advice from implementation/running advice; and while both are important, we can focus on the first category (for now)
  - So with these limitations, I think we can focus particularly on 2 main elements (granularity and time), with pedagogical theory as an orthogonal issue, but which can vary with the other 2



Practical Advice

Discipline Advice

Implementation Advice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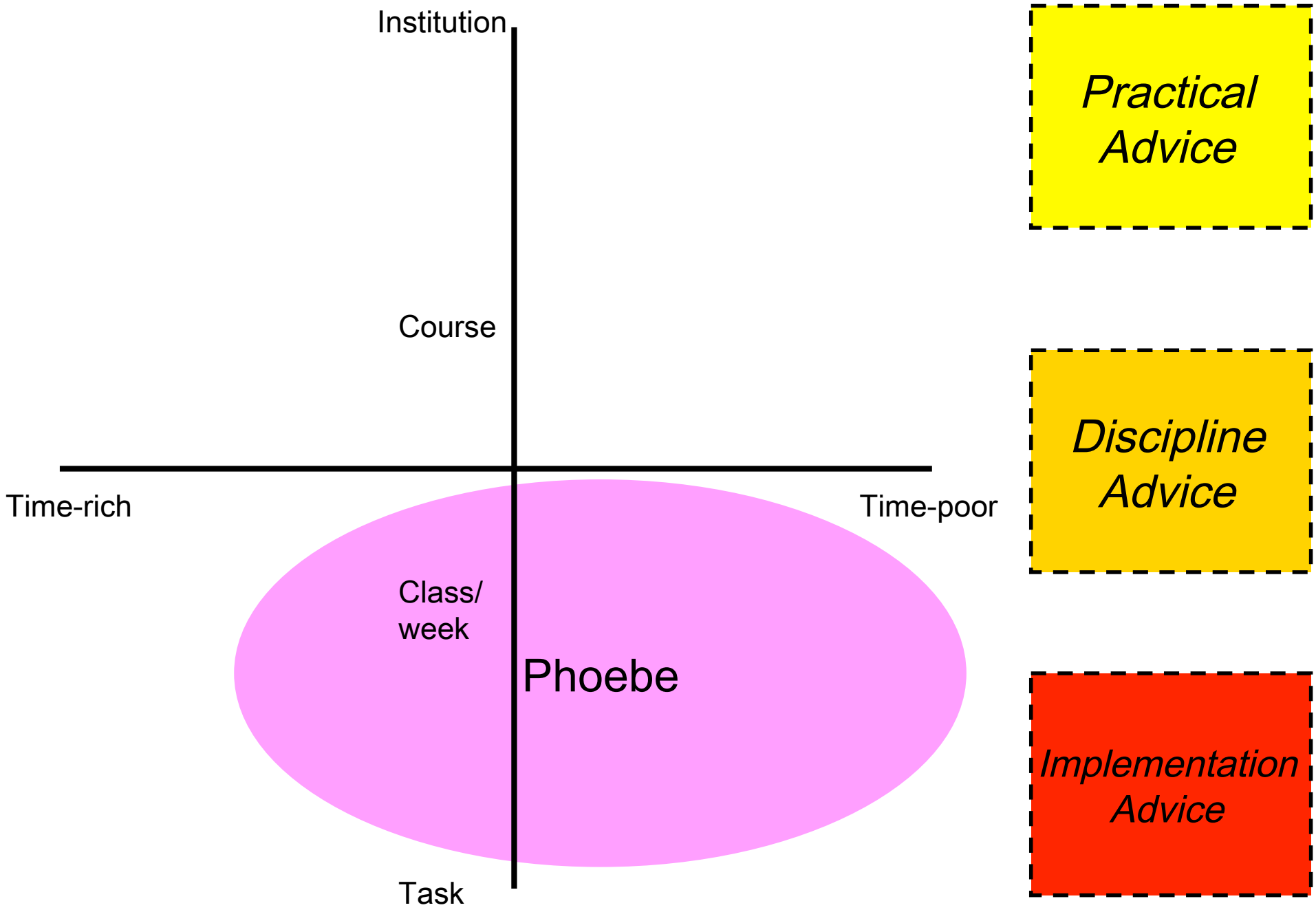
Course
London Planner
Time-rich
Time-poor
Class/
week
Task
Practical
Advice
Discipline
Advice
Implementation
Advice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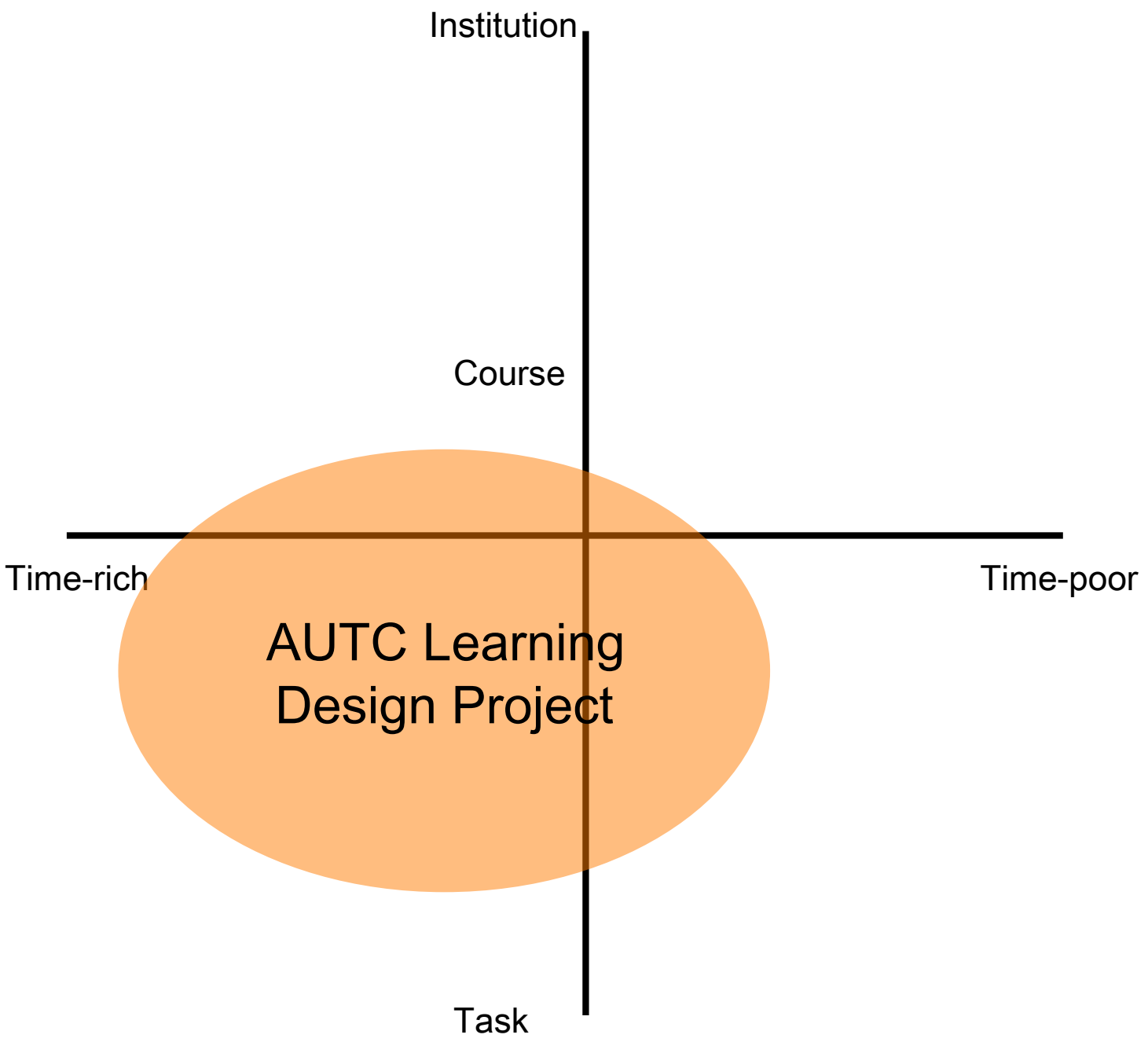
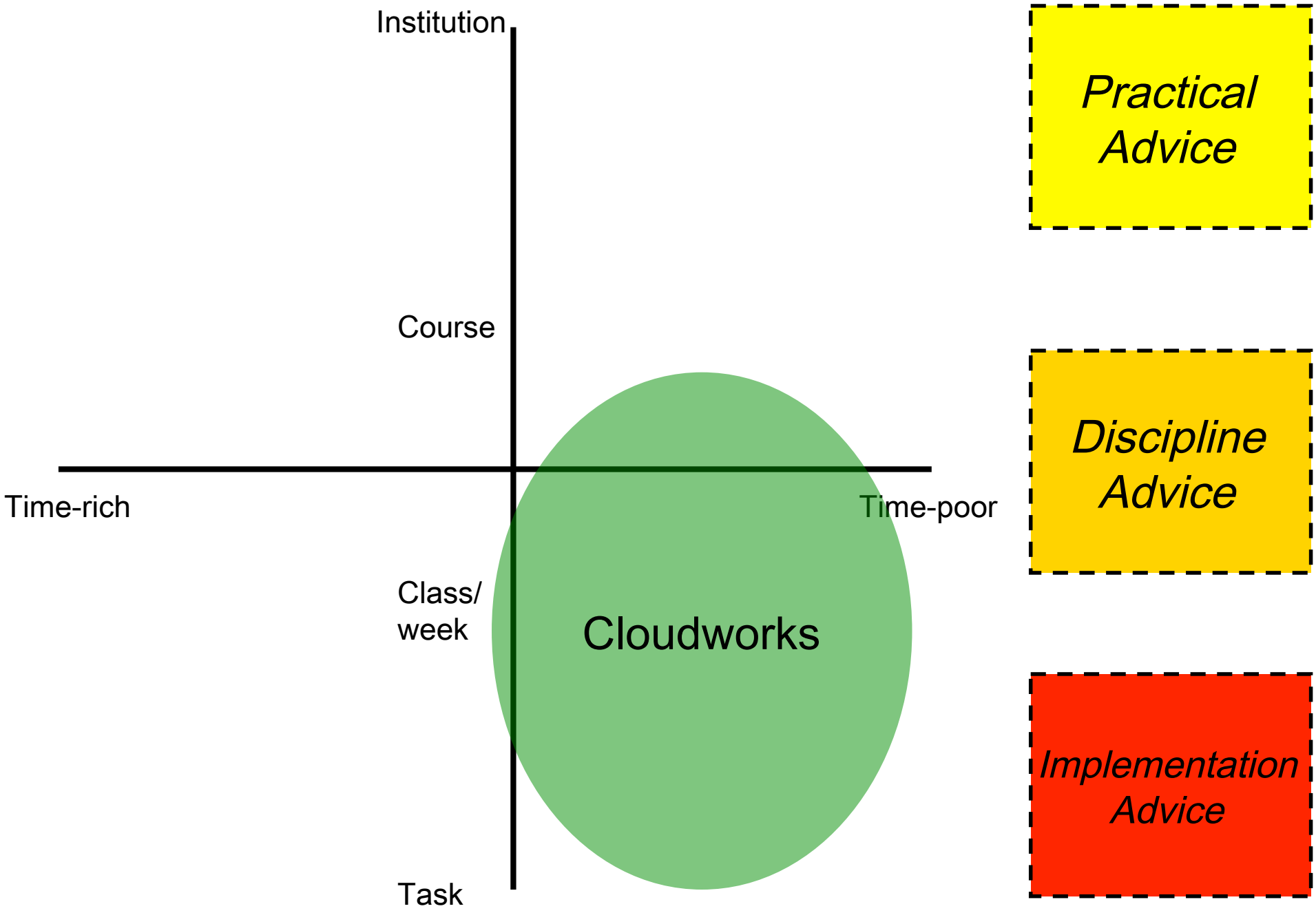
Implementation
Advice



Practical Advice

Discipline Advice

Implementation Advice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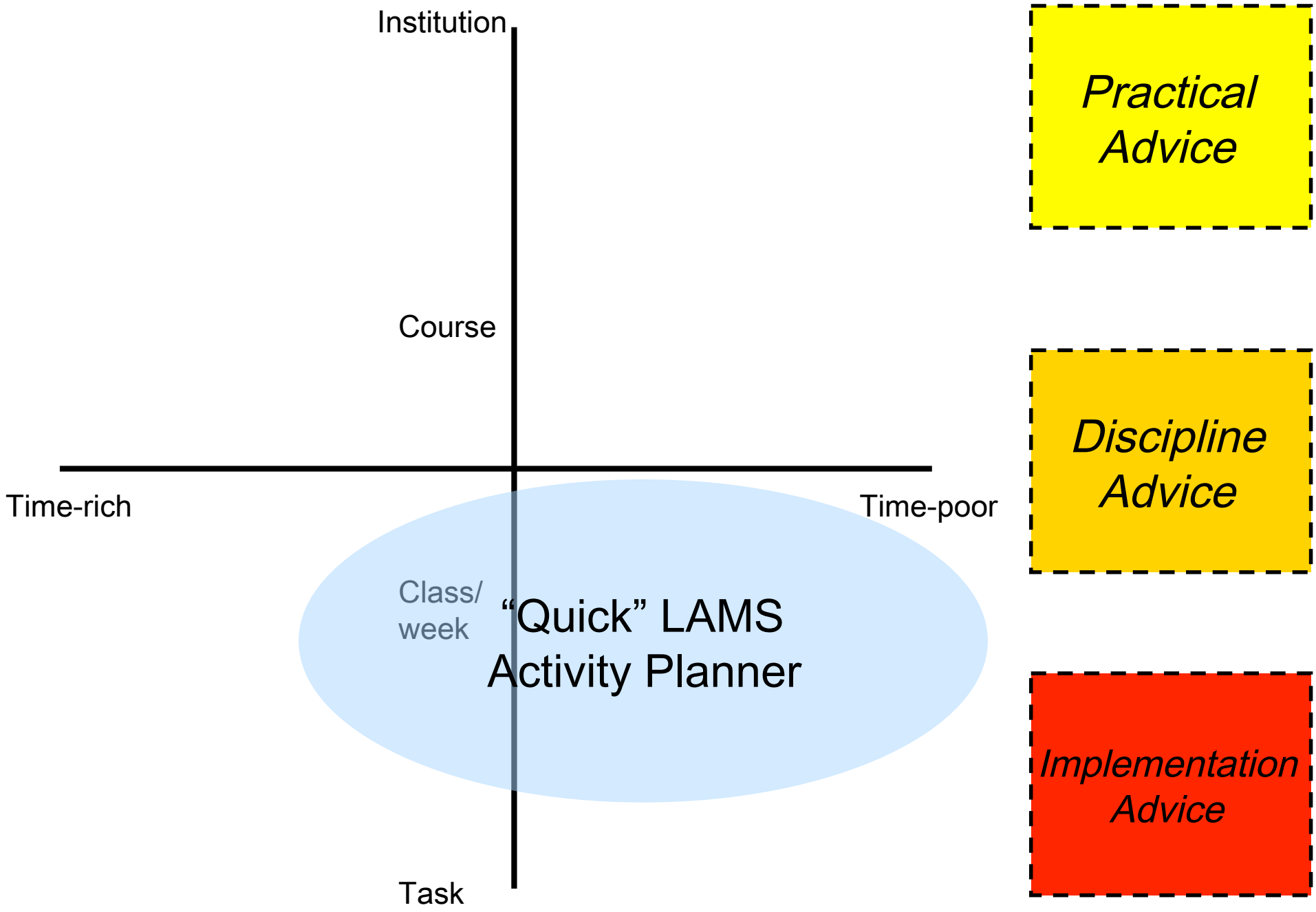
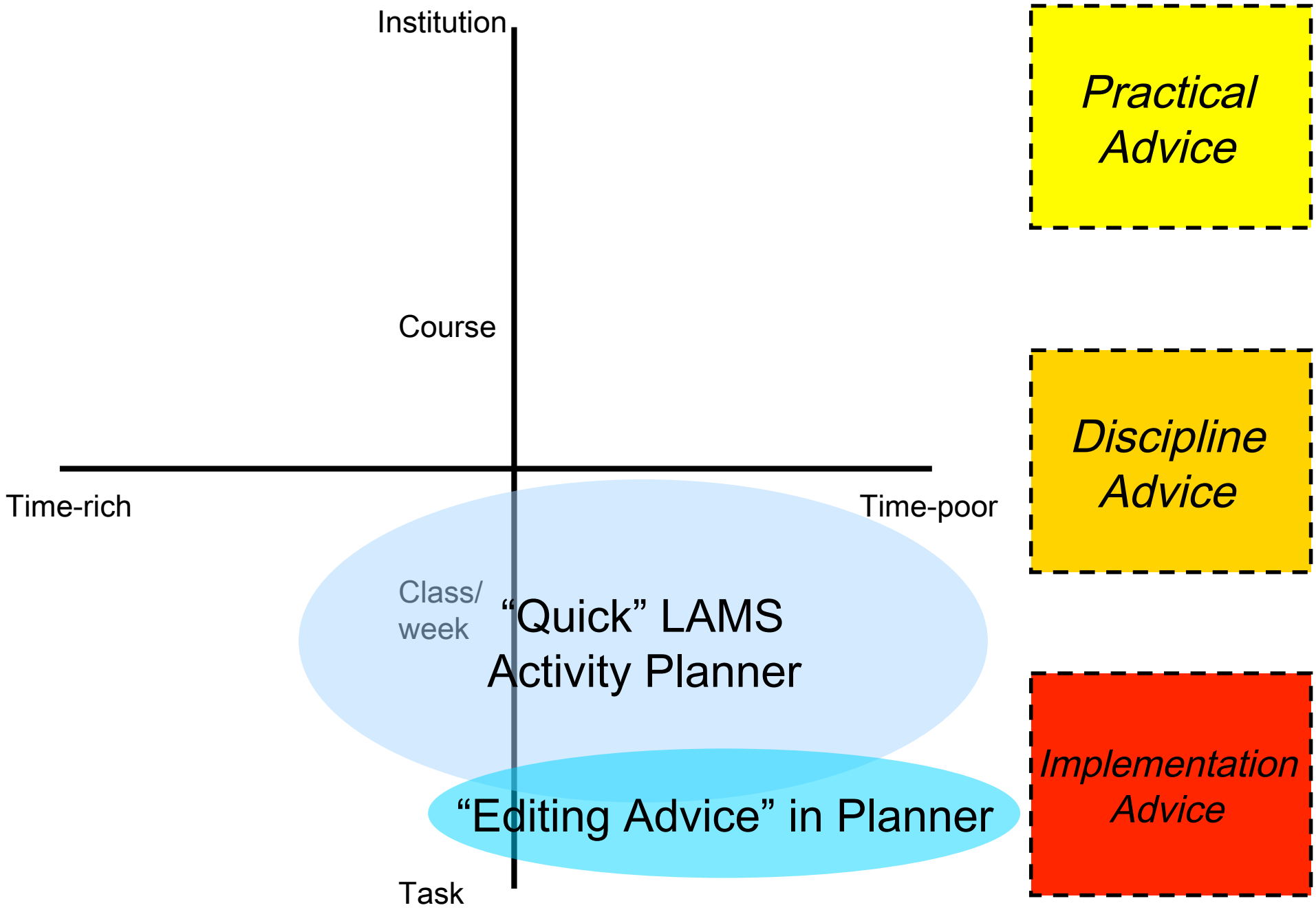

Institution
Course
Time-rich
Time-poor
Task
Class/
week
“Quick” LAMS
Activity Planner
Practical
Advice
Discipline
Advice
Implementation
Advice


Institution
Course
Time-rich
Time-poor
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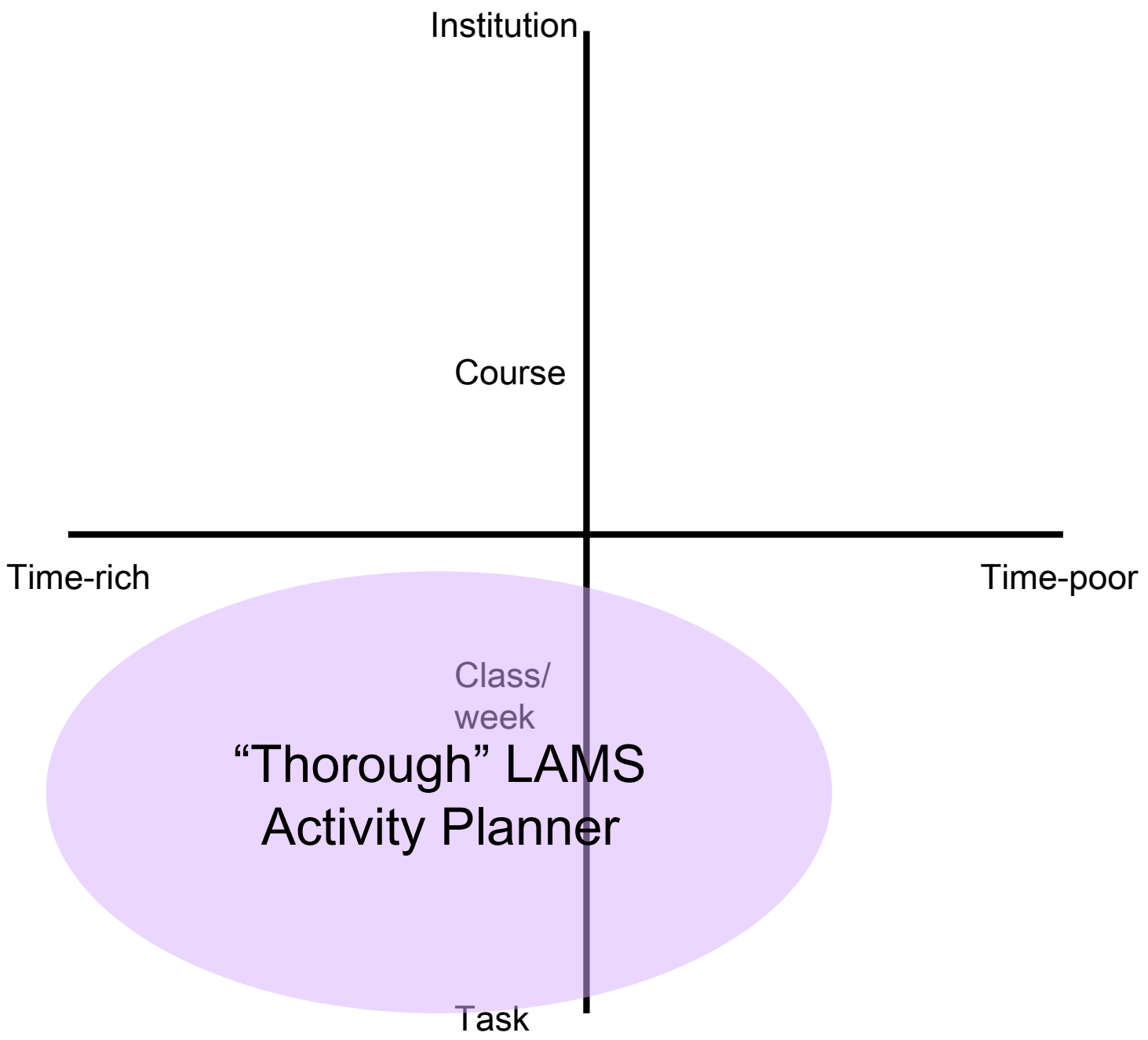
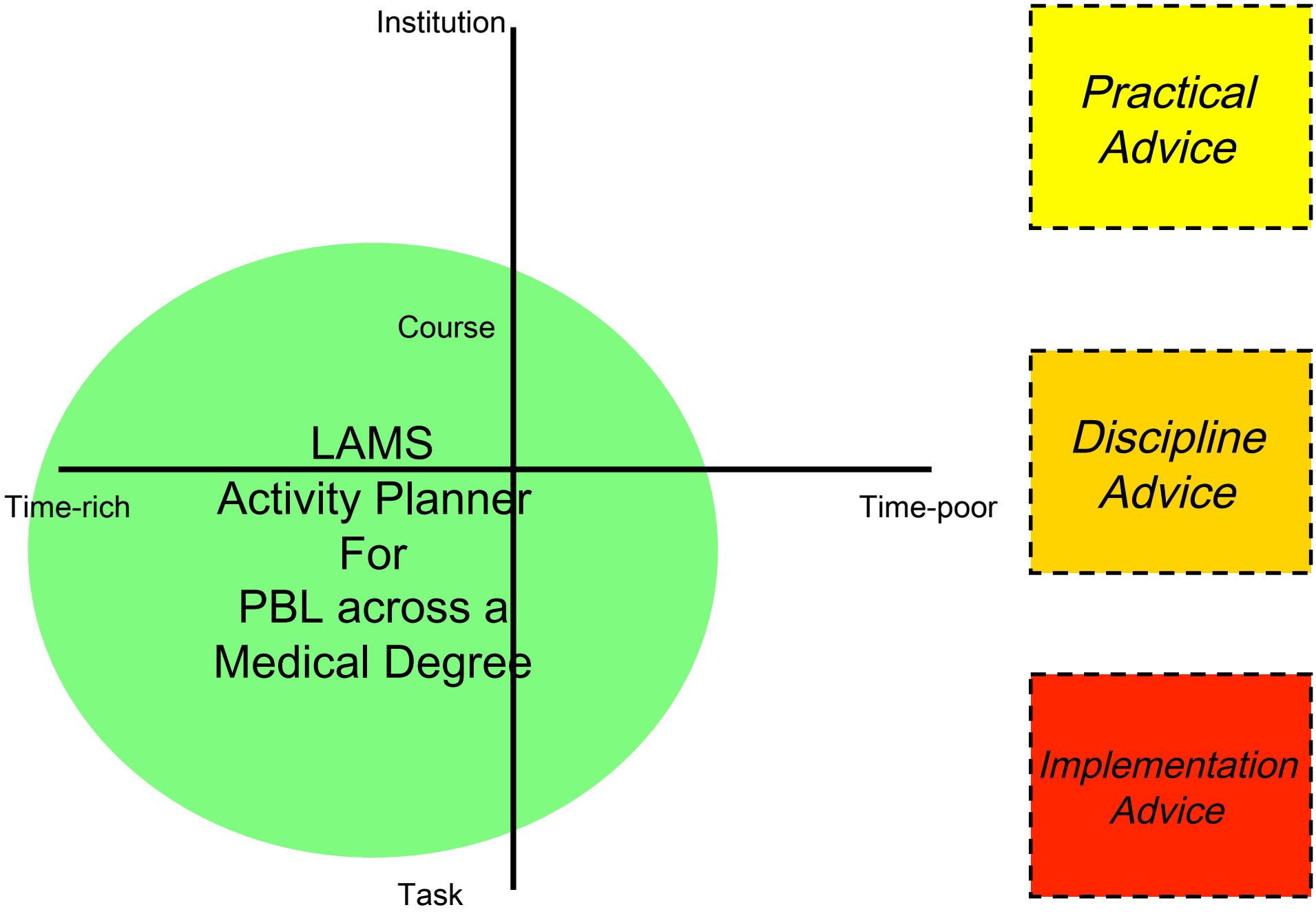
“Quick” LAMS
Activity Planner
“Editing Advice” in Planner
Practical
Advice
Discipline
Advice
Implementation
Advice



Practical Advice

Discipline Advice

Implementation Advice


Institution
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Activity Planner
For
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Medical Degree
Time-rich
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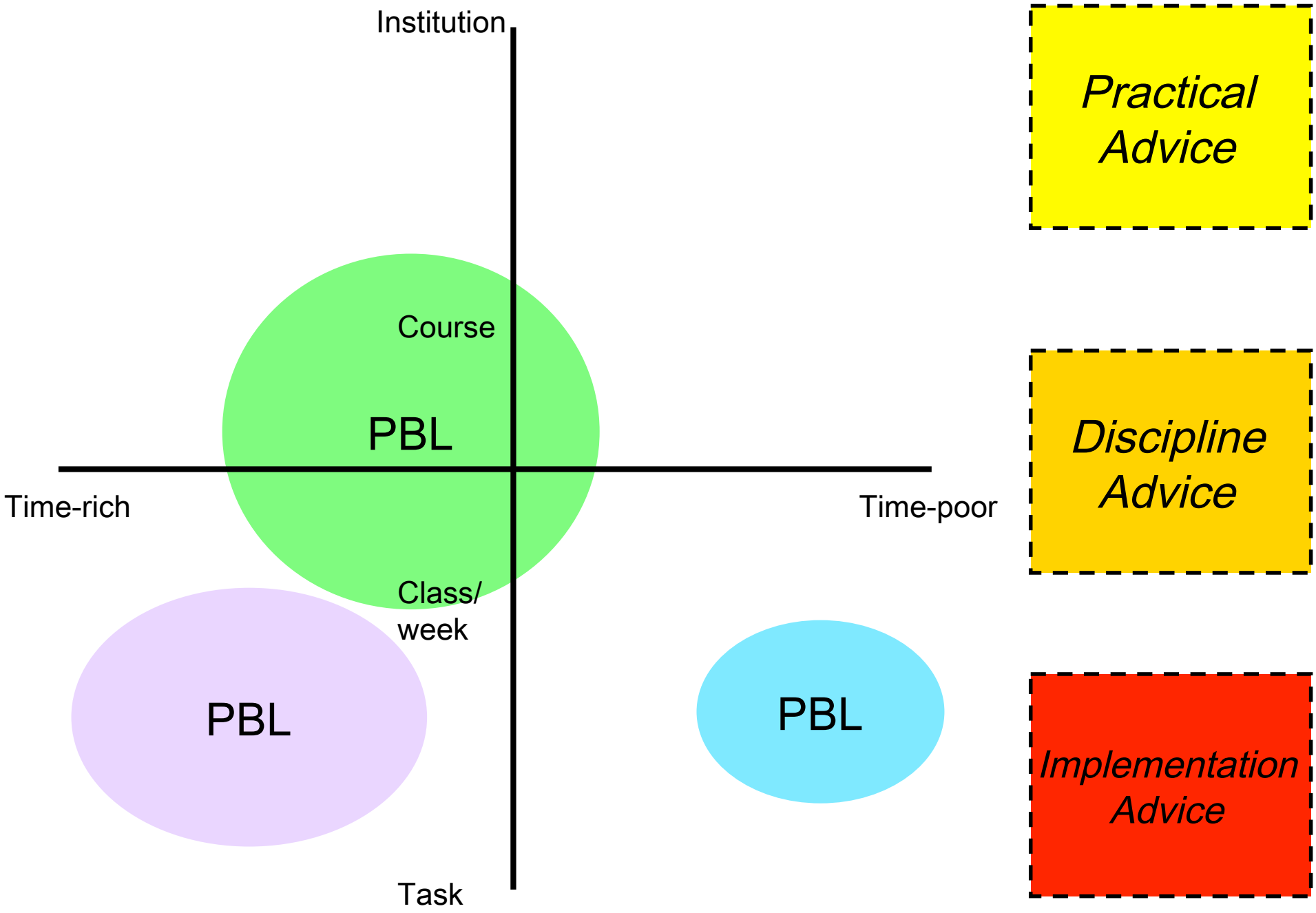
Practical Advice
Discipline Advice
Implementation Advice


Institution
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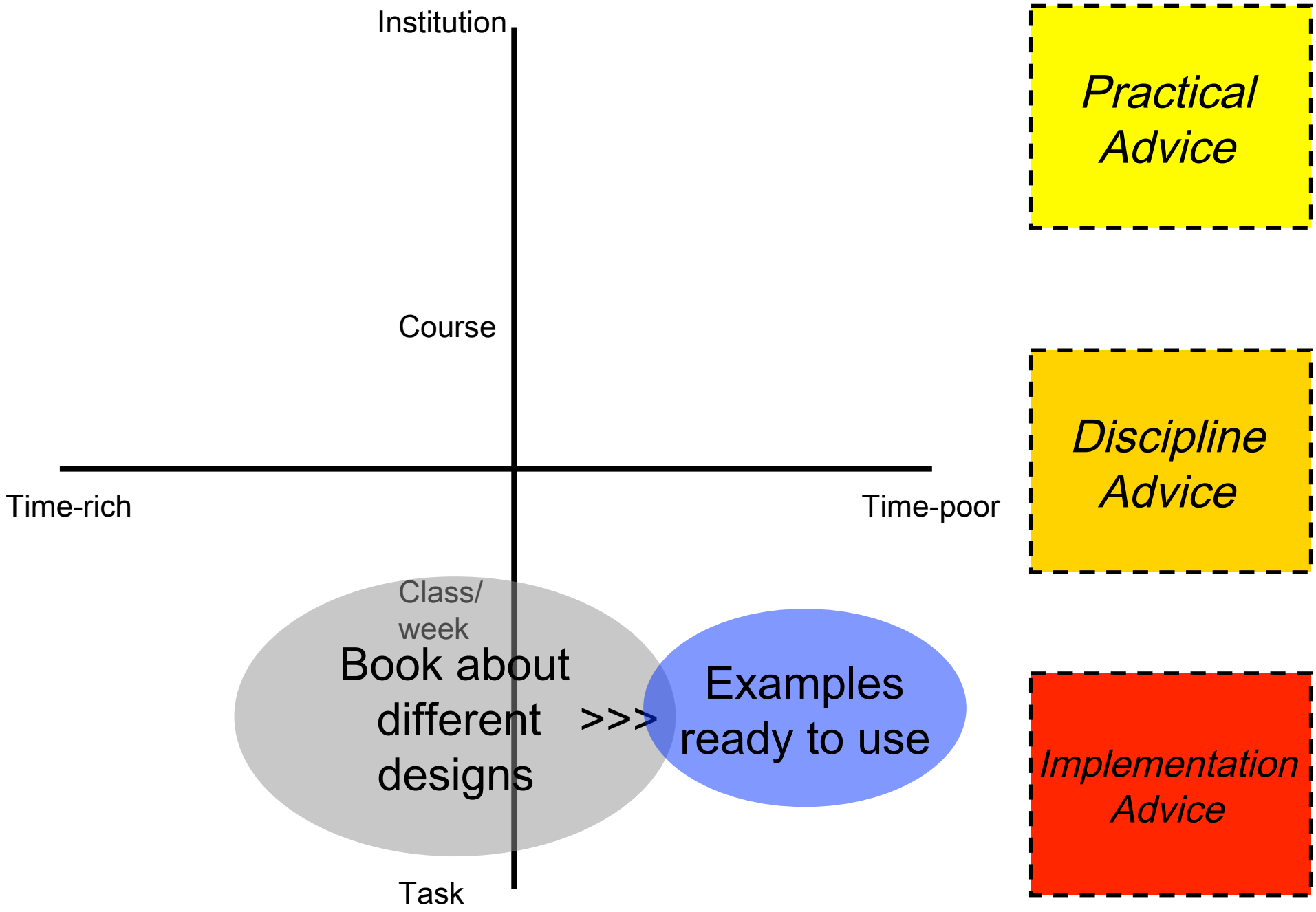
Implementation
Advice


Institution
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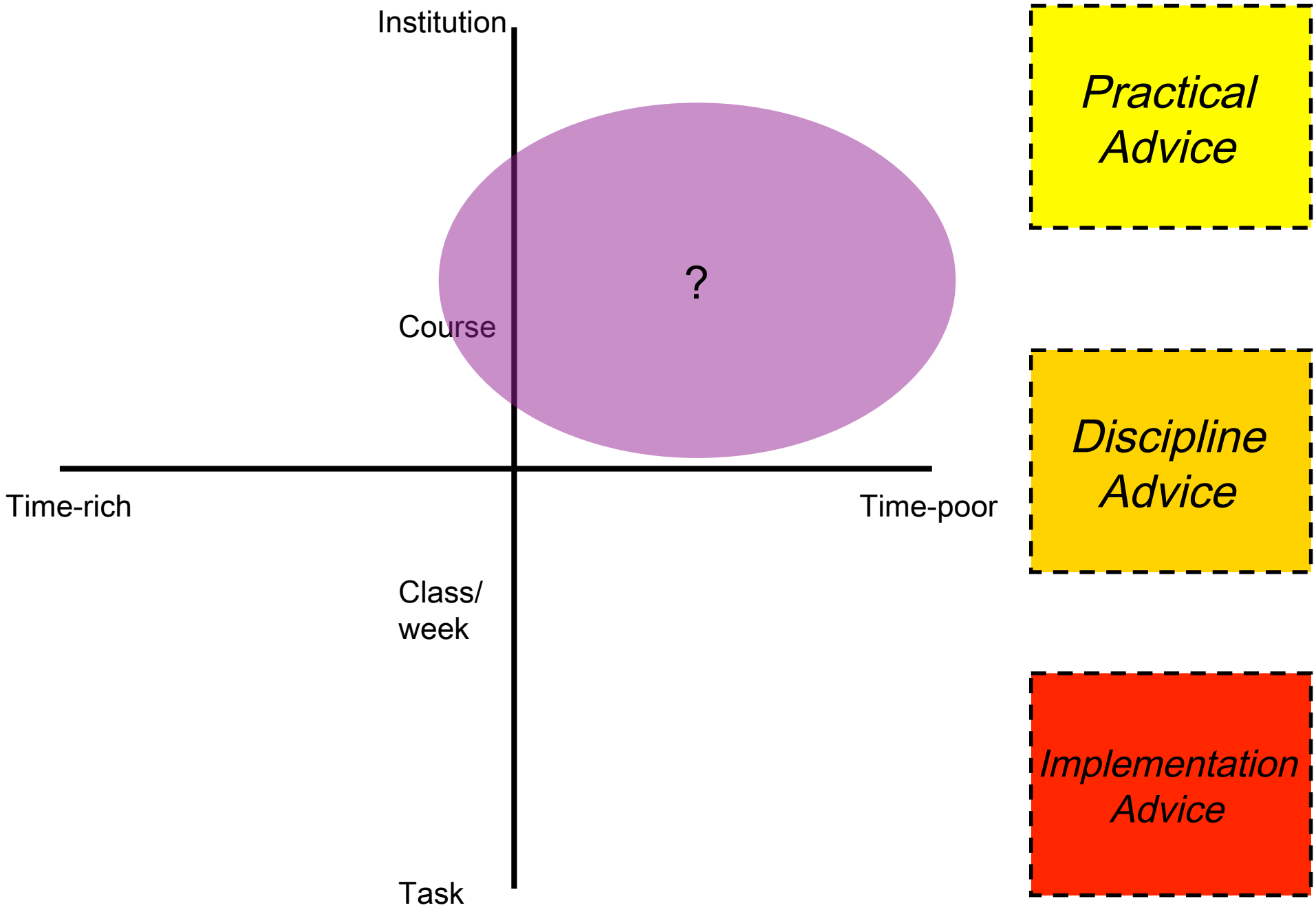
Class/
week
Book about
different
designs
>>>
Examples
ready to use
Practical
Advice
Discipline
Advice
Implementation
Advice


Institution
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Task
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Discipline
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Implementation
Advice

A Differential Model of Advice

- So does this help?
  - It may assist us to acknowledge different kinds of advice, and their relationships, and how different systems instantiate different choices about advice
  - It may help us to note which kinds of advice are missing in different contexts
  - It may indicate points of connection between different LD systems (ie, “hand-off” from one system to another)

A Differential Model of Advice

- The big question: Can this model help us to discover which types of advice are most effective at helping teachers?
  - Or more precisely, which types of advice for which contexts (eg, course redevelopment, late Sunday night, etc), for which teachers (experienced vs novice), etc

- My anecdotal experiences of different Activity Planner structures and layouts are suggestive – could we conduct thorough empirical research on the impact of different kinds of advice?