Digital approaches to inspiring university teachers’ practice

or

You could make do with a toothbrush

Liz Masterman

*Inspiring Teachers: Learning and Leading in Academic Practice*
University of Greenwich
3rd July 2012
The learning design cycle

- design or develop
- instantiate or set up
- review or validate
- realise or run

(Beetham, 2008)
LESSON PLAN

Please complete the sections that are appropriate for this specific class.

Learning Outcomes - by the end of this lesson learners will be able to (changes in learners' knowledge, skills or understanding): (NB Make sure you share these with the learners at the beginning of the session)

Aim:
To identify the practical applications of correlations and their application in statistics, to be able to identify what a false compared to a positive correlations is.
To identify key features of a presentation and the skills need to present
ECM: Enjoy and Achieve
Challenging the more able through peer assessment
Being aware of the students who have missed lectures - especially BM

<table>
<thead>
<tr>
<th>Time</th>
<th>Content</th>
<th>ACTIVITIES (how will the learners achieve the learning outcomes?)</th>
<th>D- Differentiation – have to be careful of some of the low attenders</th>
<th>How will you check understanding and assess that learning has taken place?</th>
</tr>
</thead>
</table>
| 10:00  | State the learning objectives of the lesson within the today’s present lecture and in relationship to the course
Review/recap previous activities for the application and the use of statistics, the identification of Independent and dependent variables
Type 1 and Type 2 errors | Q&A
|        |                                                                         |                                                                  | TL/SL                                                              | Q&A                                                                     |
| 10:10  | The problem of the viewer and the observed – Interaction and discussion
Schrödinger’s cat
The discussion on the bread in the window of a bread shop
The impact of correlation because of x and therefore y
Good for trends | Note Taking and Q&A                                                | TL/SL                                                              | Q&A                                                                     |
From: ALT-MEMBERS automatic digest system
Subject: ALT-MEMBERS Digest - 25 Jan 2012 to 26 Jan 2012 (#2012-21)
Date: 27 January 2012 00:03:32 GMT
To: A closed list for members of the Association for Learning Technology.

There are 10 messages totaling 2409 lines in this issue.

Topics of the day:
1. Solutions for lecture capture (2)
2. Using a Tablet as an interactive lectern (4)
3. Digital Pen for feedback and marking
4. Short films production/assessment
5. My thoughts on the new iTunes U (was RE: My thoughts on reinventing textbooks and iBooks Author tool) (2)

Date: Thu, 26 Jan 2012 10:42:05 +0000
From: David Newman <david.newman@BSG.OX.AC.UK>
Subject: Re: Solutions for lecture capture

Note that OpenMeetings also has a Facebook app, so you can use it without having to install it locally or integrate with Moodle.

Dr. David Newman
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From: Gavin Henrick <gavin@SOMERANDOMTHOUGHTS.COM>
Reply-To: "Association for Learning Technology. " <ALT-MEMBERS@JISCMAIL.AC.UK>
Date: Wed, 25 Jan 2012 13:51:20 +0000
To: "Association for Learning Technology. " <ALT-MEMBERS@JISCMAIL.AC.UK>

Rating:
5 stars

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The question for today...

(How) can dedicated digital technologies support lecturers’ teaching design practice?
Digital tools to support design

1. Support creation of learning designs
2. Provide a means to represent the output (finished design/plan)
3. Provide advice and guidance for design decisions
4. Store and retrieve learning designs for sharing and reuse
   → Foster communities of ‘sharing’ teachers
5. Integrate with ‘run-time’ digital learning environments
About Learning Activities and Sequences

Definition

A learning activity has been defined as:

"an interaction between a learner or learners and an environment (optionally including content resources, tools and instruments, computer systems and services, 'real world' events and objects) that is carried out in response to a task with an intended learning outcome." (Beetham, 2004)

There may be only one activity in a particular learning session, or there may be a sequence of activities. The exact number depends on a number of inter-related factors, including:

- The length allowed for the session in the course timetable
- The nature of the content, concepts and/or skills to be learned
- The different techniques that may be appropriate to the content, concepts and/or skills
- The amount of time you expect each activity to take.

Activity types

We have suggested a number of different activities that you might need to design for a particular learning session:

- Preparation activities to be done before the session
- The sequence of activities that make up the learning session itself
- Assessment activities to ensure that students have achieved the intended learning outcomes
- Follow-up activities: non-assessed activities that you might want the students to do afterwards
- Additional activities, such as extension activities for more able students and reinforcement activities for students who may have difficulty with particular aspects of the material
- Alternative activities that might be needed in case of unforeseen circumstances

Tools to support teachers' design thinking

This professional development workshop introduces lecturers to some of the digital tools available.

Curriculum aspects

1. Evaluate some of the new tools that are being developed to help teachers in planning and designing learning events at the 'session' level.
2. Identify (through using these tools) some new ways to think about what you do when you are planning/designing these learning events.

Learning Activities

- Title: 1. Introduction
- Nature of activity: Introduction to the workshop and brief overview of activities.
- Length: 5 mins.
**Tutor-guided class discussion**

Students could supplement the discussion by searching the internet: a technique known as Google jockeying. See this guide (PDF) from the Educause 7 Things you should know about... series.

The Learning Designer suggests these TLAs: [Online Teacher Guided Class Discussion (Asynchronous)](http://example.com), [Online Teacher Guided Class Discussion (Synchronous)](http://example.com)

**Tutor presentation**

You could free your valuable contact time with
Dull, unengaging design...

...Reduced teacher talk; increased active learning
Learning Outcome - Students will be able to: Apply a familiar concept in an unfamiliar context

Concept (e.g. properties of light, artist's style) properties of light

Implications (e.g. the look of the Moon's sky, what artist might paint) way the Moon's sky looks seen from its surface during Lunar daytime

TLA 1 - Forming an idea
- In groups of 3 consider and discuss the properties of light and its implication for the way the Moon's sky looks seen from its surface during Lunar daytime (Discuss - 5 minutes)
- As a group, collaboratively record an agreed prediction (Share - 5 minutes)
- Individually record your degree of certainty about the prediction (Produce - 2 minutes)
- As a group discuss, agree and record your reasons for your prediction (Produce - 5 minutes)

TLA 2 - Testing the idea
- When you have been shown the actual result, as a group, discuss your observations of the evidence (Discuss - 5 minutes)
- As a group, collaboratively record your agreed observations (Share - 5 minutes)
- As a group agree on the descriptions of your observations and record them (Produce - 5 minutes)

TLA 3 - Explaining the outcome
- As a group discuss any differences between the group’s prediction and observation (Discuss - 5 minutes)
- As a group agree on the reasons for any differences and record them (Produce - 5 minutes)
- Submit your group’s predictions, confidence estimates, observations and explanations to the teacher (Produce - 5 minutes)
Acceptability to teachers: enabling factors

- Simultaneously mapping to everyday practice and challenging assumptions
- Quality and relevance of computational support
- Access to the work of others
- Support for collaboration
- Suitability for initial teacher training
- Institution-level support, but not top-down imposition
Makes an unappealing job really do-able!

To start with I was delighted. However, the brush head is too bulky… and the brush can’t get into corners. This means that I have to revert to my old toothbrush for half the job…

It is also perfect for cleaning rugby boots.