Changing Spaces

Using technology to enhance learning partnerships through effective pre-lecture engagement (EPLE)

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Changing spaces: our need for change

- Long contact hours
- Traditional face to face lecture format – teacher driven
- Student diversity of learning needs
- Time poor students and teachers
- Minimal opportunity for active learning pre and during f2f
  - Select and use appropriate tools to achieve our goals
  - Improve student engagement in first year human biology
What EPLE requires….

- Careful design (blueprinting and storyboard)
- Collaboration with colleagues
- Ongoing teacher evaluation
- Student induction
- Tangible online teacher presence

With EPLE
‘…new concepts become more comprehensible and deeper understanding is easier to achieve when students master relevant prior knowledge.’

Kolari and Savander-Ranne (2007)
Interactive Learning Modules
Developing & implementing the ILMS

- Existing PPT lectures adapted to Articulate Learning software.
- Narrative recorded using an investigative questioning style to help clarify new concepts.
- Key learning issues emphasised to highlight ‘threshold concepts’.
- Student access via LMS – Blackboard’s MyUni.

http://ajax.acue.adelaide.edu.au/~allan/embrology/player.html
Using ILMS for Feedback

- Interactive assessment checkpoints undertaken at regular intervals (ie approx every 5 slides)
- Students receive immediate feedback
- “At risk” students or global learning issues identified
“Quick Bytes”

- Provide students with a video ‘online crash course’ introducing new concepts
- Embedded in ILM.

http://www.youtube.com/watch?v=G2TvfgiNHCs
EPLE changes the f2f space

Checkpoint 1 (68%)

- The preimplantation period of embryonic development lasts for:
  - One hour
  - One day
  - One week
  - One month

- The first stage of human development is known as the:
  - embryo
  - zygote
  - blastocyst
  - foetus
Impact of the ILMs
Evidence of effectiveness
Evidence of effectiveness

Average completion rate: 95% 2008-2011

(No formal assessment linked to ILMs)

Human Biology SELTS:
‘I receive adequate feedback’
2011: 100% BA
2010: 100% BA
2009: 100% BA
What our students think about ILMs

Student Evaluation of Learning and Teaching (SELT) 2007-2010 surveys and student emails elicited qualitative data:

- "I felt I had access to the tutors in my own home"
- "I was able to pause the ILM to reflect on fantastic analogies I will never forget"
- "ILMs are a convenient and valuable learning resource.. they help me to understand the topic better before the lecture"
- "Having visual and auditory resources helps reinforce the message more effectively"
What our students think about ILMs

Feedback from focus groups:

- **Immediate feedback on performance**
- **Make sense of their learning through both independent reflection and collaborative activities**
- **...a more effective learning environment - students felt that they learnt better through ILMs than traditional approach**
- **Improved students’ engagement to the point where they were discussing content outside of class**
- **The dialogue of two lecturers was lively and entertaining, underpinned by their ability to provide effective explanatory images and metaphors.**
Benchmarking the ILMs

<table>
<thead>
<tr>
<th>Salmon’s 5 stage online learning model (Salmon 2006)</th>
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<tbody>
<tr>
<td>1. Access and Motivation ✔</td>
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<tr>
<td>2. Online Socialisation (culture building) ✔</td>
</tr>
<tr>
<td>3. Information Exchange (co-operation) ✔</td>
</tr>
<tr>
<td>4. Knowledge Construction (collaboration) ✔</td>
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<td>5. Knowledge Development (development) ✔</td>
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Transforming the way our students learn ....... and teach others!!!

A learning partnership
What’s next?

- Grant application to foster colleague development
- Survey Monkey now ‘hosts’ the checkpoints and has improved the data collection and analysis of student participation and learning
- Continuous improvement through evaluation and peer collaboration

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References


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