eDesign: an authentic online learning course using Moodle paired with an open companion website

This presentation is part of my Masters research on improving online learning in higher education.

I have about 20 slides that I have prepared but I really only want to show you 2 of them. Have you heard about flipped classrooms and/or flipped lectures?

Well I am going to do a flipped lecture. I haven’t done this before so we can take the journey together and if you don’t like this style I can always revert to my 20 slides.

I’m going to start by giving you a three minute overview of my research thesis and then asking you what you would like me to talk about...
Imagine this: You live in regional WA, miles away from the nearest university. You have spent the last three years studying your degree online (via the Internet) and not once during this time have you actually spoken to any of your lecturers or fellow students. In your final unit your lecturer provides you with access to new communication technologies and actively encourages you to share your ideas with your peers. How would you feel?

Well, this is a true story and on hearing my voice this student exclaimed: “Wow, there are people out there. I’m not in a bubble”. This comment ignited a passion in me to try to improve the quality of online learning for university students.

In the field of education we have known for a long time, that people learn better when they are actively involved in the learning process. So, why are many online university courses still primarily information dumping grounds that foster student isolation and boredom?

Discussions with my peers revealed many lecturers would like to make their courses more interactive but felt they lacked the knowledge, skills, time and encouragement to do so. Existing research suggests the use of real-life tasks supported new technologies and open access to the vast array of educational resources on the Internet has the potential to improve the quality of online learning.

The aim of my research is to test the effectiveness of this learning approach and to develop and publish guidelines that will assist other educators to use this real-life approach. I have developed an online course where university lecturers have the opportunity to:

- experience online learning from a student’s perspective
- use the guidelines to create their own real-life learning courses
- explore how new technologies can support student learning
- and network with their peers.

The course will be delivered twice (January and June 2012) and feedback will be obtained for improving the course. Feedback from the first course indicated immersing lecturers in this real-life learning approach has the potential to change existing online teaching practises to help students break free of their isolated learning bubbles and become active contributors in the learning process.
Questions?
Now, it’s your turn... I’d like to tailor this presentation to suit you. So I’d like to know:
• Why did you come to this session?
• What is of most interest to you?

Audience responses
• How did you facilitate the course?
• What do the LMS and companion websites look like?

My answers
Moodle was the central hub. Participants came from three different universities within Western Australia. It would have been difficult obtaining a site on the Murdoch University system that would provide easy access for participants from other universities so I decided to use Moodle as I had my own Moodle site and although it would not be a familiar environment for participants it is very easy to use. I included a short 5 minute video to demonstrate how to navigate around the Moodle environment. The course was facilitated using LMS discussion forums and a Skype real-time chat. All communication was done asynchronously. There were no formal synchronous meetings. However, quite often there were a number of participants chatting in the Skype chat at the same time.

The following slides show what the LMS and companion website look like and provide links to access the demo sites for this presentation.

The Demo courses on the LMS are open to guests so you can see the overall structure of the Moodle courses. Both courses contain links to the companion websites so you can see how they were designed and also view the resources for both courses.

Research website

Information about my research can be found on my research website at:
www.elearnopen.info

On this site you will find copies of my research papers and presentations as well as links to
the Moodle LMS and companion websites.

When you click on the eCourses tab at the top you will be taken to the my Moodle LMS site
where you can access cloned copies of both versions of the authentic courses. Note: all
student data has been removed.
Herrington et al.’s authentic learning design framework (2010, p. 128) was extended to include learning objectives and identify components of the course that need to be situated within a protected environment (for reasons of confidentiality). This extended framework provided overall guidance for the design and implementation of the course (see Figure 1) and was also used as a support resource to assist participants to design their own online course. Herrington et al.’s elements of authentic learning (2010, p. 18) and elements of authentic tasks (2010, pp. 46-48) were used to ensure the course and task design adhered to authentic learning principles.
Implementation – 1st iteration

First iteration of the course was implemented in January 2012. The course was implemented using a Moodle LMS and an open companion website created on Google Sites.

The LMS acted as the central hub for course announcements and provided a protected environment for the confidential components of the course. The demo LMS course can be accessed at: http://www.elearnopen.info/courses/course/view.php?id=21

The companion website was the primary learning environment and contained detailed task instructions, course content, task and support resources.

The Moodle LMS uses a 2 column layout. A previous presenter mentioned they used the 3rd column (right hand column) as their window to the world. In this course the center column where the course content is usually placed is the window to the world as most of the content, tutorials and resources for this course are located on open public websites.
Section One: Introduction
The focus of the first week of the course was on identifying participants existing knowledge, building relationships and joining the course groups; Skype, Diigo, Google Docs.

Facilitation tools included:
• An introduction forum
• A help forum
• Skype real-time chat
• Email
Section Two: Readings & discussions
The focus of this section was to encourage participants to read about the course concepts and share their understanding of the readings with their peers. Information about building a community of inquiry was included to ensure participants were aware of the importance of articulating and sharing their learning.

Facilitation tools included:
Participant blogs (accessed by all participants) – for reflecting on readings
Q & A discussion forum
Section Three: eDesign Tasks
The course is task-based, so by completing the tasks participants complete the course. There were no lectures in this course. Task instructions, support resources and content were included on the companion website.

Section Four: Evaluation and conclusion
As this was a professional development course there were no formal assessment tasks. However, the course design included opportunities for feedback from fellow participants and the facilitator about the final course outline product that participants produced for this course. This section also included the post-course survey and an anonymous participant course evaluation questionnaire.
The companion website – January 2012

Links to the companion website were included in each section of the Moddle LMS. The companion website can be accessed via the LMS or directly at:
https://sites.google.com/site/authenticedesign/home

Participants were required to create and maintain a blog throughout the 4 week course. This tool was not a good choice as most participants did not get their blog setup until the second week and as a consequence only created 2 or 3 posts. A simpler tool was selected for the 2\textsuperscript{nd} iteration of the course.
Evaluation

A full analysis of the data collected from the first iteration of the course had not been completed at the time of writing; however, data analysis of the anonymous online course evaluation conducted at the end of the course and facilitator reflections has been completed to identify potential improvements for the second iteration of the course. Five participants completed the online course evaluation questionnaire which included thirty-five closed questions (using a four point scale) and two open short answer questions. All participants responded positively to twenty-eight of the closed questions and only one person disagreed with the remaining seven closed questions.
Recommendations

• Increase weekly hours & reduce content
• Install software prior to commencement
• Skype – social presence reading & forum
• Diigo – readings, comment, add resource
• Peer review - analysis worksheet
• Different tool for pre/post course survey
• Replace blog with easier tool

Recommendations for improving the 2\textsuperscript{nd} iteration of the course
Participant responses and facilitator reflections from the initial course were mapped against the elements of authentic learning and recommendations were identified for improving future iterations of the course (see attached Recommendations.pdf).
Implementation 2nd Iteration

Most of the content was removed from the LMS and the task completion feature was used to create a checklist for the activities and tasks so help participants stay on track for completing the activities within the allocated course timeframe.

The course consisted of three sections: Pre-course tasks, Course tasks and post-course tasks.
Pre-course tasks
Participants were given access to the LMS one week prior to the start of the course and encouraged to download and install the course technologies for Skype and Diigo before the course commenced.
Course tasks
The course tasks were grouped into 4 weeks and included links to the companion website to access lectures, readings and tasks instructions. A Q & A type forum was used to encourage participants to reflect on the readings and their learning each week. The Q & A type forum prevents participants from seeing other posts until after they have added their own posts. This ensures their reflections are their own and not influenced by what others have written. However it also allows them to read other learning thoughts and ideas and share their learning.
Post-course tasks
This section contained links to the post-course survey and the anonymous online course evaluation survey. It also informed participants that they could access the LMS for up to one month after the course and that the companion website, Diigo and Skype groups would remain open so they could continue to access resources and network with their peers after the completion of the course.
Companion website – Jun 2012

https://sites.google.com/site/authenticedesign2demo/

The companion website – June 2012

Links to the companion website were included in each section of the Moodle LMS. The companion website can be accessed via the LMS or directly at: https://sites.google.com/site/authenticedesign2demo/
**Conclusion**

A major challenge for instructional designers and practitioners for implementing authentic online learning is aligning the critical components of authentic tasks with effective learning principles ([Herrington, et al., 2010](#)). Immersing practitioners in the theoretical environment they are learning about has the potential to change existing online teaching practices ([Maor, 2003](#)) using a bottom up approach ([Oliver, 2005](#)).

An online course that provides practitioners with the opportunity to learn and use an authentic learning framework can assist them to address this challenge.

Our preliminary data analysis appears to support Maor and Oliver’s conclusions as most participants agreed the authentic learning approach was an engaging and effective method of learning that provided them with new skills and ideas that they are keen to explore in their own courses. However, lack of time due to high workloads and little recognition for improving teaching practices is still a major barrier for practitioners being able to take advantage of these professional development opportunities. If universities wish to improve the quality of existing online courses, these barriers needs to be addressed at an administrative level.