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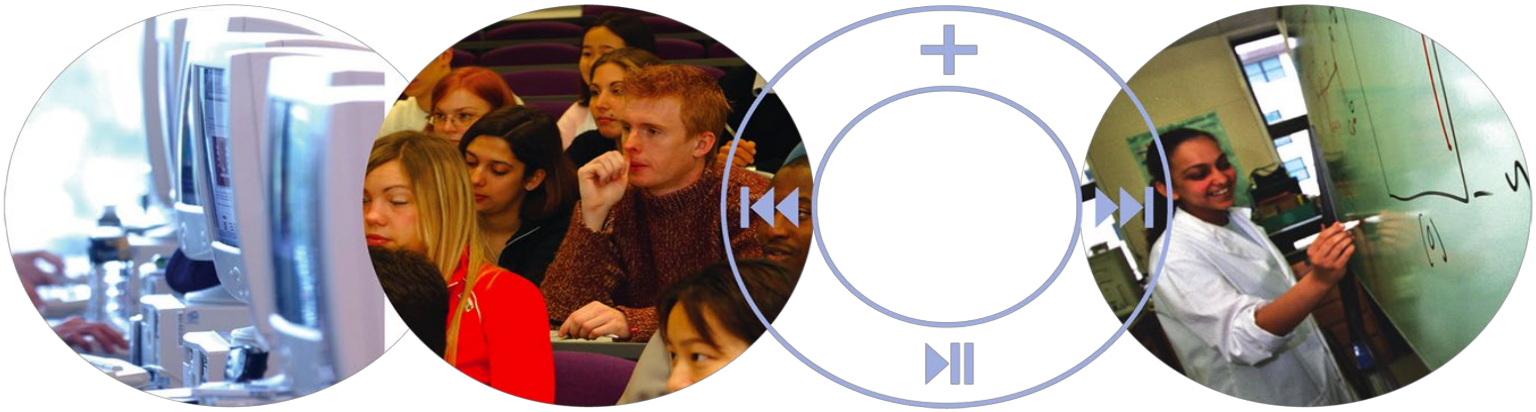

A Presentation to MS@CPS Project Partner Institutions

Blended Learning: Using Technology to Enhance Collaborative Learning

14th September 2020

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Introduction

- Knowledge Exchange
- Blended Learning Definitions
- Devising a BL Curriculum
- A Pedagogical Framework for Collaborative Learning in a BL Context
- Examples of its use
- Resources

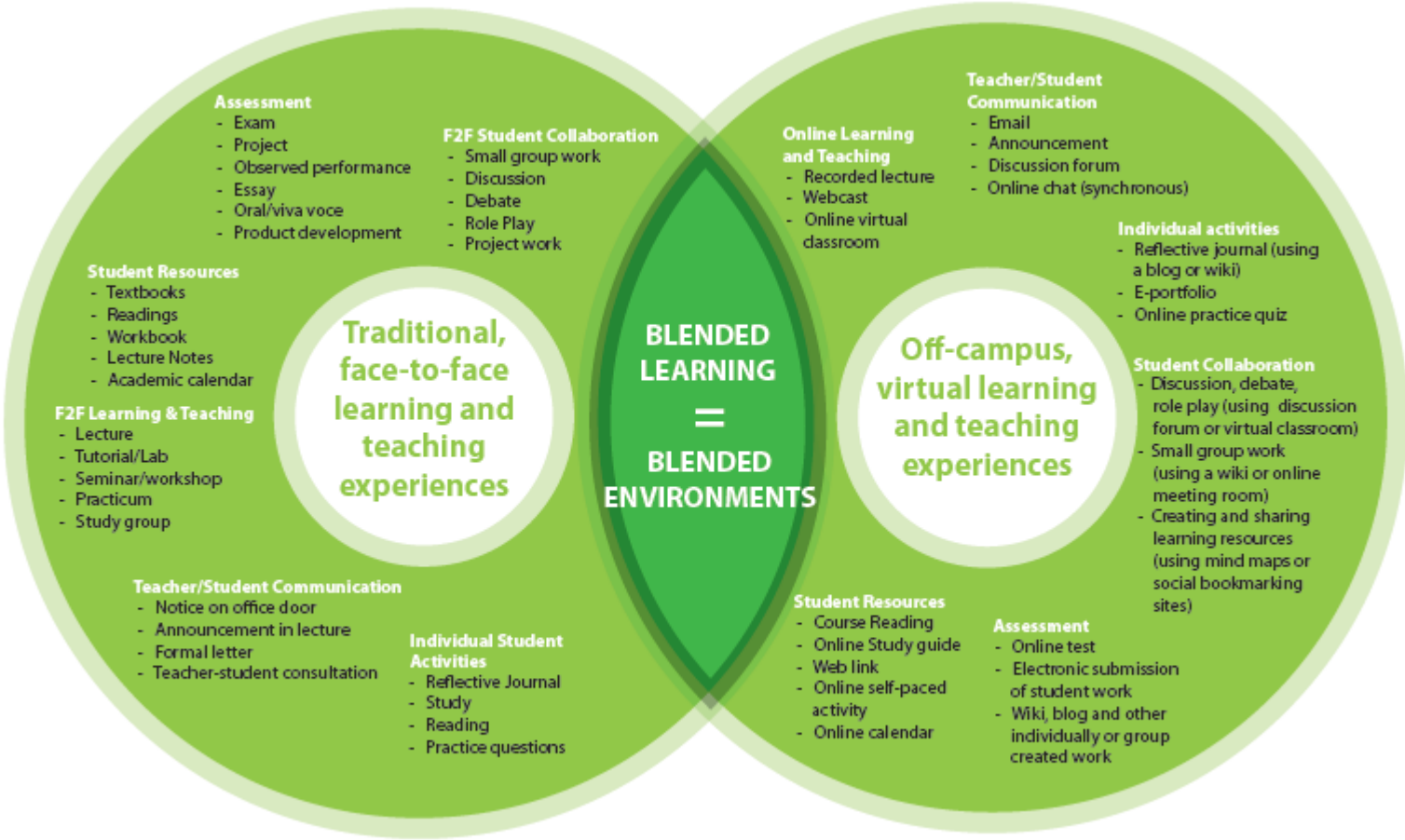
Blended Learning – definitions

- "Blended learning is the thoughtful fusion of face-to-face and online learning experiences" Garrison and Vaughan (2007, p. 9).
- Doolan, Thornton, and Hilliard (2006, p. 14) define blended learning where students actively engage with the technology alongside traditional face-to-face meetings and class contact".
- Educational provision where high quality e-learning opportunities and excellent campus based learning are combined or blended in coherent, reflective and innovative ways so that learning is enhanced and choice is increased" (CETL Bid, 2004)

Devising a BL Curriculum

- Consider whether e-learning opportunities are intended to be:
  - Supplementary: to traditional approaches/activities – extra learning resources and/or communication opportunities for students, staff and students
  - Complementary: to traditional approaches/activities – e-learning resources and/or communication opportunities that are designed to be used in conjunction with traditional approaches, exploiting the strengths of different types of activities and developing new synergies
  - Instead of some traditional activities – stand alone e-learning activities that replace some traditional activities, maximising flexibility, opening up possibilities for sharing and reusing resources
  - An alternative to traditional activities – where e-learning opportunities are offered in parallel with traditional activities, providing alternative routes

Possibilities of Blended Learning



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Bath, D. and Burke, J. (2010 p. 4) Getting Started with Blended Learning. Griffith Institute for Higher Education

A Pedagogical Framework For Collaborative Learning In A Socially Blended E-learning Context

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Followed by examples of its use…

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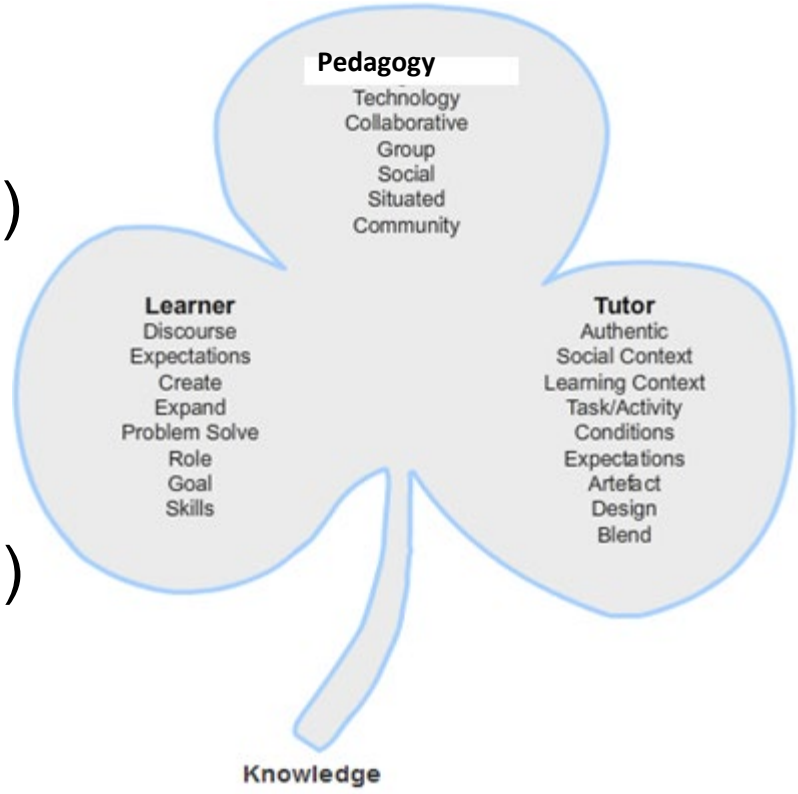
Pedagogy

- Technology – blended mode
- Collaborative (Dillenbourgh, 1999)
- Group (Lewin, 1951)
- Social (Vygotsky, 1978)
- Situated (Lave and Wenger, 1991)
- Community (Wenger, 1998)



The Dialogic Shamrock Conceptual Framework Doolan (2011)

Tutor

Carl Rogers and others:

- Facilitative learning
- Person/Learner-centred approach
- Learning will occur by the educator acting as a facilitator, that is by establishing an atmosphere in which learners feel comfortable to consider new ideas and are not threatened by external factors (Laird, 1985).

Tutor Role
Active Learning Environment

- Design: Authentic tasks/activities
- inter and intra group/ interdependent activities
- Produce Artefact
- conditions – student as co-producer, clear expectations
- individual and group based learning to construct/share knowledge, problem solve, zone of proximal development (Vygotsky, 1978)

The Dialogic Shamrock Conceptual Framework
Doolan (2011)

Tutor Role

- nurture relationships, situated (Lave and Wenger, 1991)
- interdependency between the relationship and the overall success of the group (Lewin, 1951)
- social active/participation, meanings (Wenger, 1998)
- shared repertoire (Wenger, 1998)
- sense of belonging in the social context (Wenger, 1998)

The Dialogic Shamrock Conceptual Framework Doolan (2011)

Tutor Goal

- Community building > individual enrichment
- Deep learning rather than surface
- Student Participation rather than a receiver
- Aspect of Tutor practice – social constructive, dialogue, shared knowledge
- Knowing is about belonging, participating
  - Tutor is not the "fountain of all knowledge"
- Create an active learning environment – learning is NOT a spectator sport

Learner

Activities set by tutor to promote active participation with pedagogy, learners and tutor

- Promote discourse, joint negotiation, participation,
- Clear expectations i.e. group commitment
- Problem solving collaboratively, knowledge creation and expansion
- (Role play) authentic and plausible activities
- Joint goals, interdependent/interrelated tasks
- Skills development
- Deep learning
- Meaningful, timely feedback
- Co-producer of content

The Dialogic Shamrock Conceptual Framework
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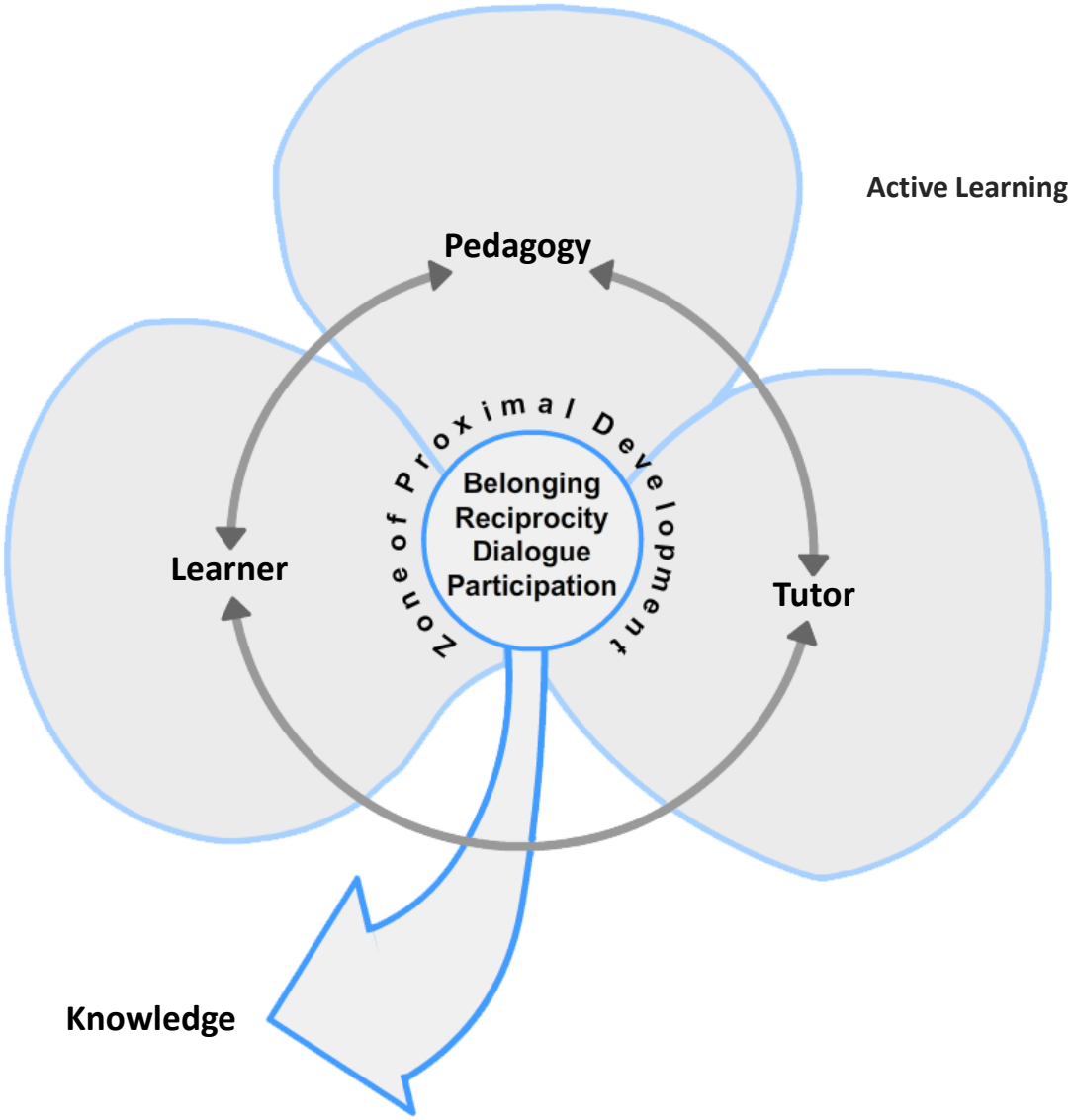

Active Learning Environment
Pedagogy
Learner
Tutor
Knowledge
Zone of Proximal Development
Belonging
Reciprocity
Dialogue
Participation

Developing BL Solutions: The Autonomous University of Baja California, Campus Mexicali

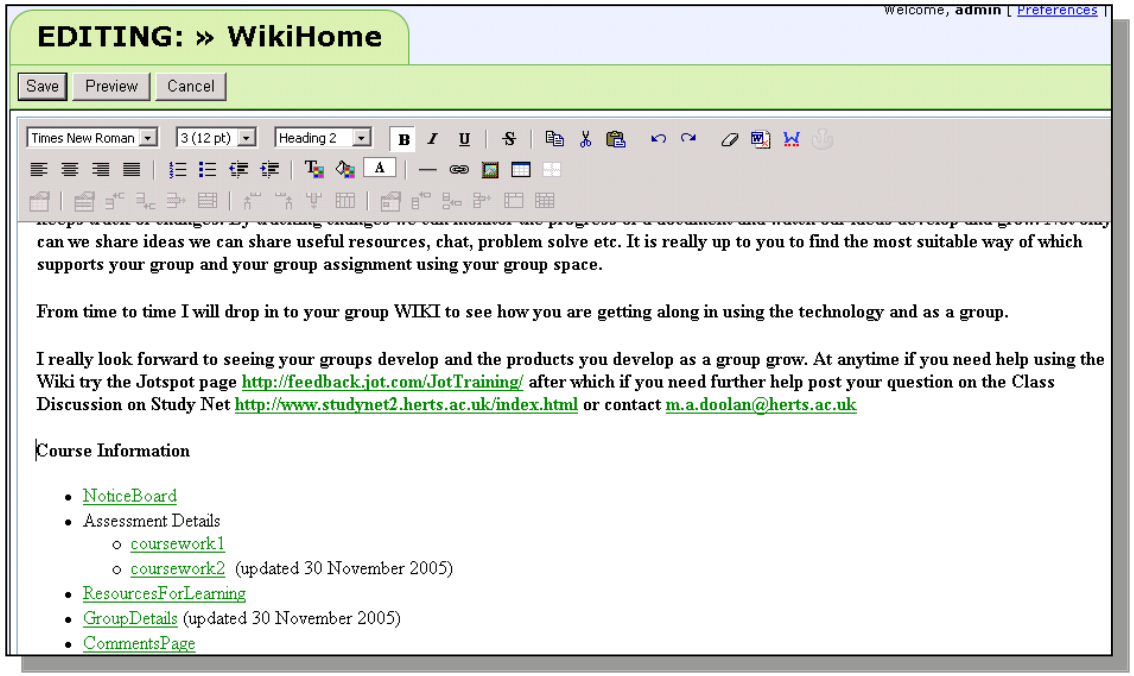
Example of BL solutions 1

A community textbook for programing Java

- Using a Wiki in Blackboard
- Teachers create initial sections
- Introduce to students in a lecture
- Contributions from students following the lecture
- Revisited in lecture

Wiki

- a web based collaborative authoring tool allows users to edit pages
- Users can create pages and links by simply typing text on a page using a browser
- Looks and feels like a normal Intranet or Internet web site.



Easy to use, appropriate for any field.
If you can use MS Word you can contribute to a Wiki

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Why Use a Wiki?

- To provide students with an open “structured bulletin board” (Leuf & Cunningham, 2001) for collaboration, reflection, analysis and feedback that is easy and fun to use;
- Gain regular feedback on students’ comprehension and progress (“troublesome knowledge” Perkins, 1999)
- Provide regular feedback in order to respond to students’ needs
- Increase students’ employability, prepare them for
  - teamwork, global audience, peer reviews
  - new business models where “collaboration is the expectation rather than exception” (Richardson,2006)

What can an individual do?

"Talking to yourself" may well be the "first sign of madness" …through a mobile phone…

- a private space to brainstorm, map concepts
- Produce a linked network of web pages – themes/keywords
- A visual technique for representing knowledge and information/Make Notes
- A repository of knowledge, information
- Tracks changes so can revisit ideas

What can a group do with Wiki?

- **Very powerful create own content**
  - Collaborative writings i.e. documents, diagrams,
  - Keep a lab book cross referenced internal external links
  - Create, share, edit, store, resources
- **Structure own learning** – dynamic
  - add comment, attachments, edit page
- **Discussion** –
  - can hyperlink words, use different colour text for identification
- **Peer-to-Peer Support**
  - Help guide
  - Pastoral care
- **Setting own Learning Agenda**
  - Empowering: Agree work practices
- **Share**
  - Resources
  - Understandings/misunderstandings
  - Ideas - brainstorm
- **Progressive Knowledge building**
  - Retain experiences – knowledge base
- **Peer Review** of work

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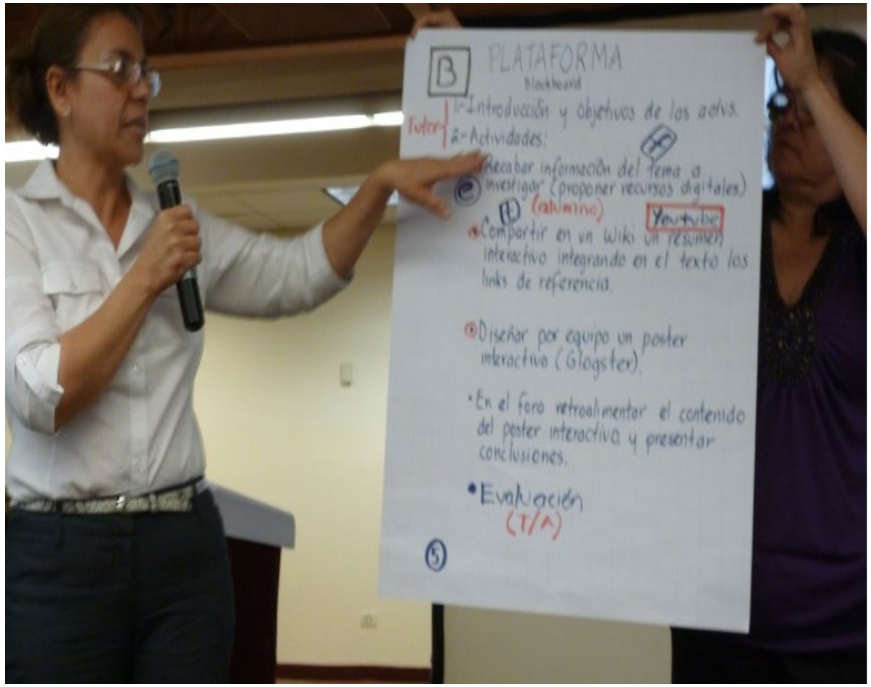
Example of BL solutions 2



Research exercise using the Web, Wikis and Glogster

- Research Activity uploaded by teacher
- Students share links in Wiki
- Group work element
- Use Interactive Glogster to upload videos, music and posters
- Peer assessment
- Discussion forum

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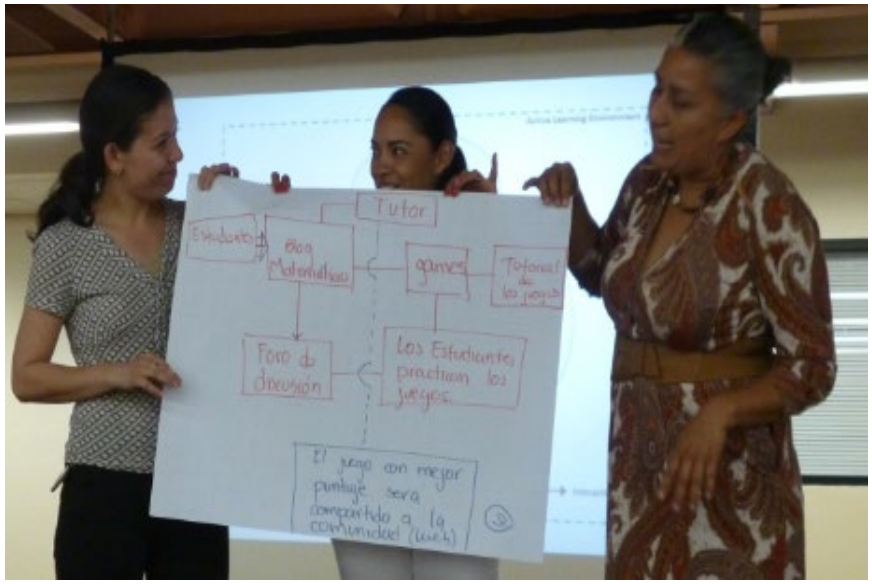
Example of BL solutions 3



A Blog to learn Mathematics collaboratively

- Using a Blog
- Tutor is an observer
- Students design and upload games
- Other students use
- Awarded points
- Discuss their learning using a Discussion Forum
- Summary uploaded to Blog
- Best game uploaded to the school website

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Weblogs (Blogs)

- Online *personal* commentary typically text based
  - may include text, hyperlinks, photographs, video, audio files etc.
  - Can be group based
- Can be private or public
  - Public allows comments
- Simple webpage
- Can set up notification of change

Example of BL solutions 4

- Blogs as a research tool.
- Doolan (2004) and Doolan and Barker (2005) undertook content analysis on 111 Blogs and related themes specifically to theoretical and practical concepts relating to the student experience and collaborative learning supported by technology.
- Doolan (2009; 2010) undertook content analysis on 96 and 60 student Blogs respectively to capture the learners experiences of using social media Blogs, Wikis and Podcasts for collaborative learning.

Example of BL solutions 5

Data Visualisation module

- Semester B module
- End of semester exam
- 22 (18 present) learners studying on a as part of the final year of a BSc
- 2 Academic staff
- 1 Advisor (researcher)

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Assessment Strategy

Task to complete a series of mini-projects and present on a weekly basis for feedback, exam based on these:

- carried out in small groups (2 or 3 students).
- 7 active groups from a class list of 22 (4 never present)
- intended to engage learners' collectively and collaboratively through group based learning activities to construct, and share knowledge through interaction
- critique of existing data visualisation artefacts (from press, web, etc)
- design of visualisation artefacts based on varied project definitions and associated datasets"

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The Presentations

Recorded using a flip camera and organised as follows:

- Group (order selected randomly)
- 3-4 minute presentation (recorded)
- Tutor-led class critique, question and feedback (student feedback)
- Final Tutor Feedback on general points from the presentations
- Open discussion on the validity of the mini-project, what worked and what didn't
- Video and Audio Recordings uploaded to MLE

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Example of BL solutions 6
Information Systems Development module

- 96 second year computing students used a Wiki as part of their normal assessment for a computing module
- The overall aim of the module is for students to develop their skill in all stages of developing computer-based, user-friendly information systems.
- Learning Outcome
  - Apply the principles and techniques of system development in a team working environment
- Based on realistic case studies using role playing
  - Student provided with an insight into realistic company environment – authentic learning

The Assessment Strategy
Task 1 – Task 4 completed online

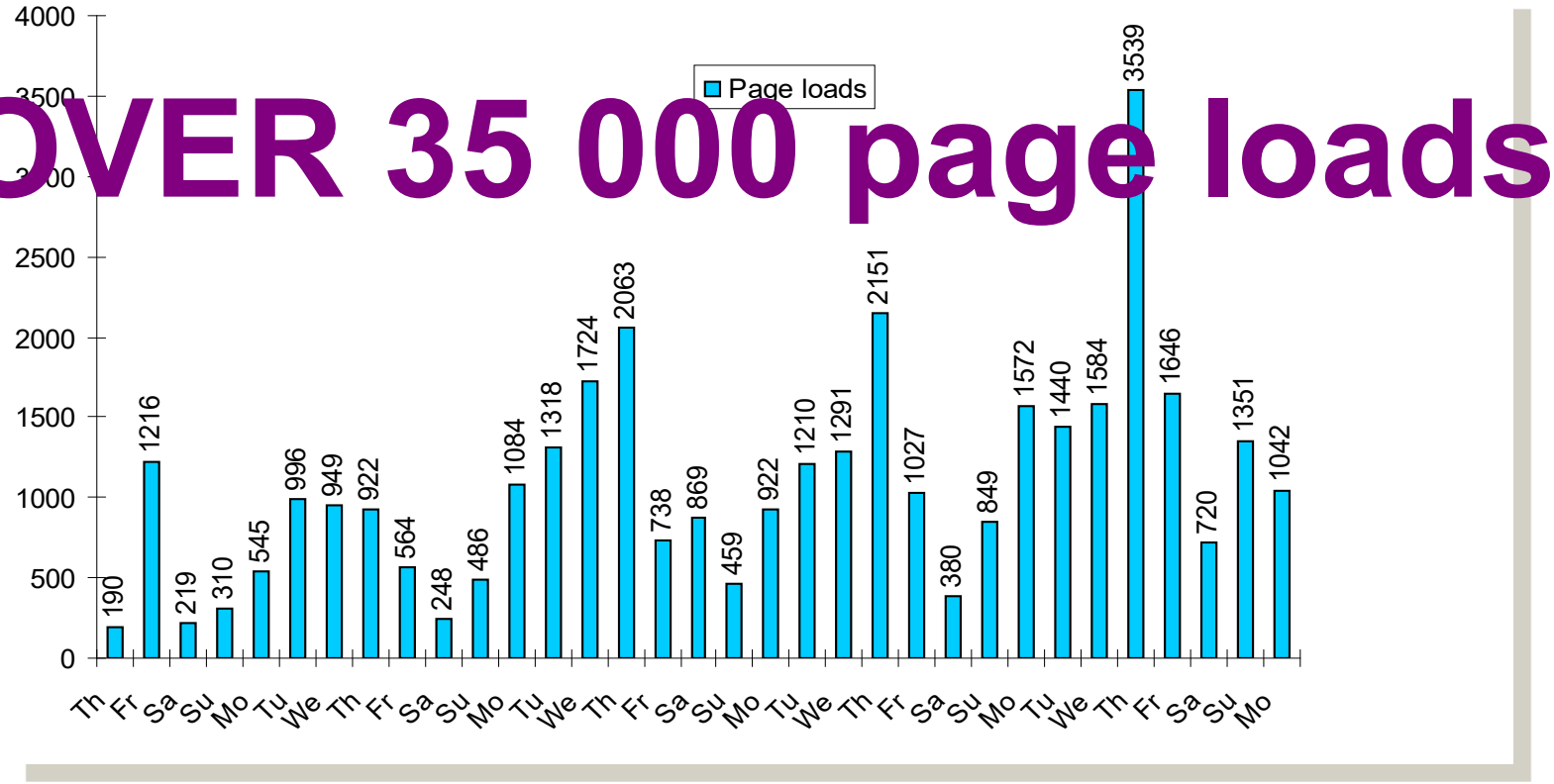
Students provided with case study and expected to create a shared understanding of the pre-defined problem, agree the division of work amongst themselves, problem solve and produce a report. Students worked in groups of six:

- **Task 1:** Requirements in context
  - Brainstorm and document requirements (template provided)
  - Group commitment (individual)
- **Task 2:** Research collaborative technology
  - suitability for requirements capture.
  - share findings in resources space accessible to cohort in Wiki.
- **Task 3:** Based on task 2 produce discussion paper
- **Task 4:** Collective Reflective journal (Blog)
- **Task 5**: Peer review of work in lecture (on campus)

Learning Activities

- Produce a report which consists of solutions to five set tasks the students were provided with the Wiki environment to support the undertaking of these tasks
- Tasks set:
  - equally devisable, learning by doing, perspective and understanding not just recall, enhance information sharing, personal autonomy and control over learning
  - Student themselves allocate roles and responsibilities
  - All relevant templates required to undertake the activities for this assessment with all activities based on the case study provided by the tutor for the assessment.

Evaluation
Student Wiki activity overview – 4 weeks



OVER 35 000 page loads

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Teacher - Community

- Engagement online using Desktop, Wordpress (Blog) and in face to face meetings
- Sharing practice
- Learning, Teaching and Assessment designs
- Different subjects: cross fertilization
- Learner and tutor created content i.e. audio, video, text
- We employed student mentors to support staff
- Sharing with experienced staff
- Learning from less experienced staff

Schools who participated

Subject	N	Level	Type
Business	24	Masters	F/T, Campus
Law	36	Masters	P/T Prof/Prac
Computing	54	2nd Undergraduate	F/T Campus
Optometry	12	Masters	D/L Prof/Prac
Management	46	Masters	P/T D/L, Prof/Prac
Health Care	12	Masters	P/T, Prof/Prac, Campus
Education	15	Masters	P/T, Prof/Prac, Campus

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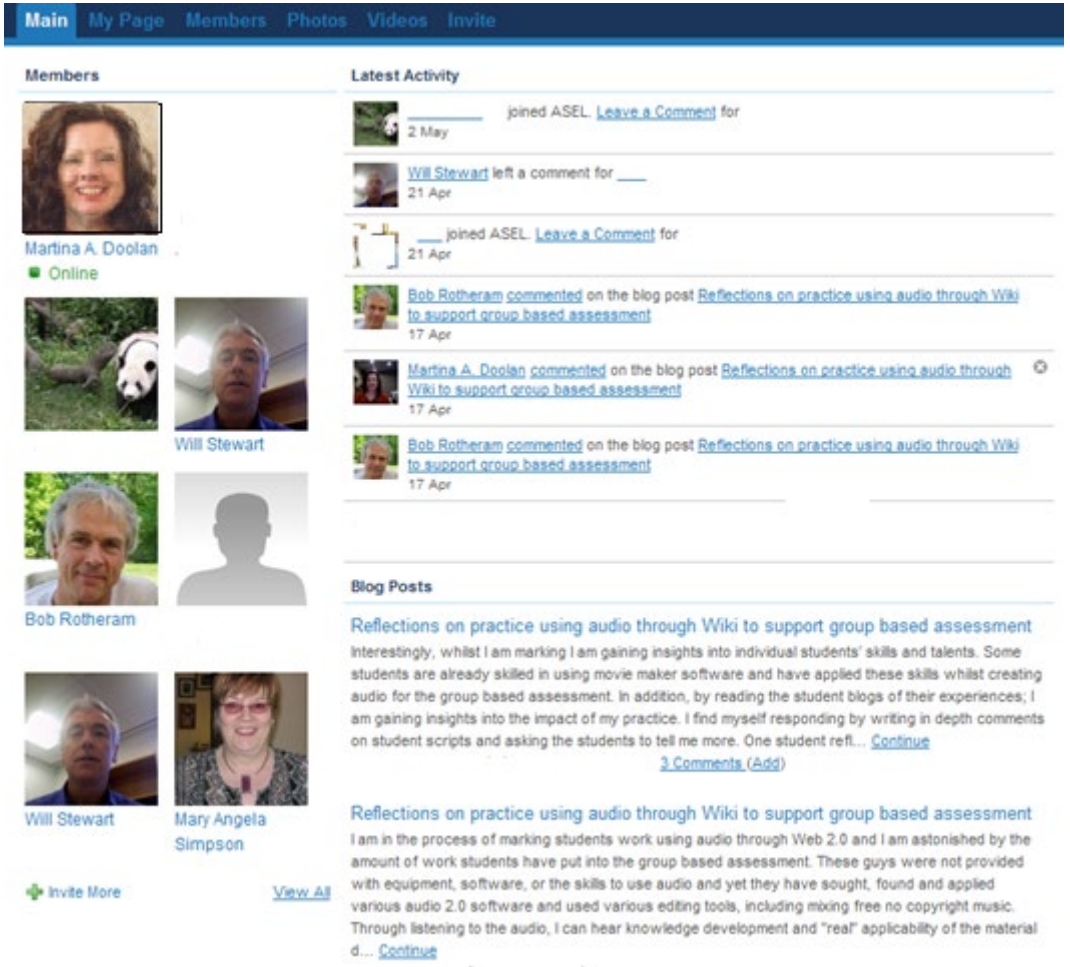
Increased levels of interaction and dialogue with teachers.....

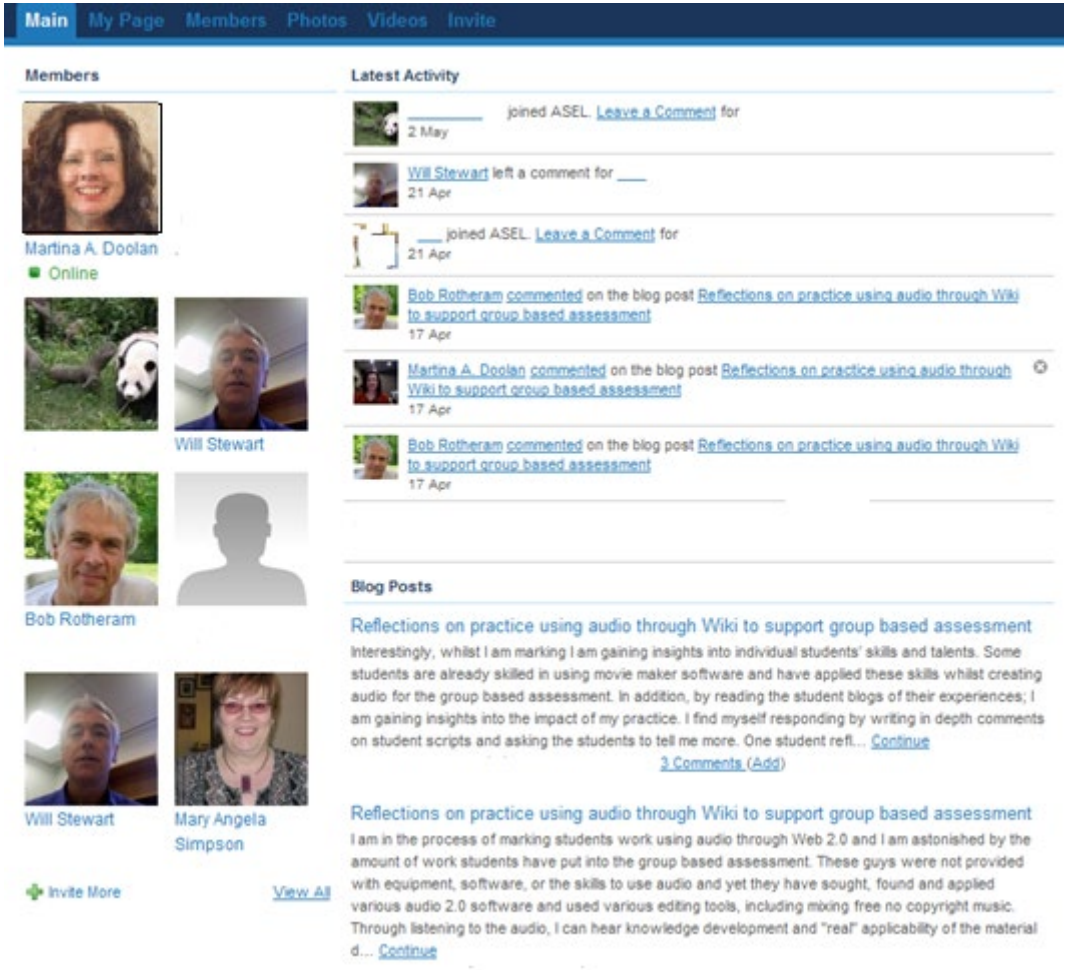
"Interestingly, whilst I am marking I am gaining insights into individual students' skills and talents"

students are already skilled in using movie maker software and have applied these skills whilst creating audio



Teacher reflections.....

"I am in the process of marking students work using ***audio through web 2.0*** *I* ***am astonished*** *by the amount of work students have put into the group based assessment"*



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Technologies used by Students

Recording
-MP3 player
-Laptop or computer with microphone directly on to internet
-Telephone plugged into USB port
-Mobile phone

Audio 2.0 Software
-GCast
-Houndbite (audio site of YouTube)
-PodOmatic

Editing
-Adobe Audition
-Audacity
-Adobe Premier

Music Clips
-Partners In Rhyme
-SoundSnap

Communication & Audio
-MSN
-E-mail
-StudyNet
-Wiki
-SharePoint
-Facebook
- Blogs

Student Feedback

*"The **audio** continues to enable those less comfortable with written material to become involved in the project"*

***Audio...** "It offers the ability to analyse the situation beyond the two dimensional nature of a textural analysis or transcript"*

"Feedback from the recording process has enabled us to gain an impartial insight into how an independent mind views our work thus far"

*"With a **podcast**, once it is up, you ALWAYS know where it is and can subscribe to RSS updates for the feed – VERY useful!!"*

*"The helpful thing about using **audio** is that you can access feedback anytime and listen to it as many times as you want..."*

*"I believe that **wiki** should be used within more subjects at university as it offers a wide range of tools"*

"I use the links on **wiki** to navigate around blogs, the GCast site and to locate the numbers and e-mail addresses for other group members etc."

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UNIVERSITY OF BRADFORD MAKING KNOWLEDGE WORK

JISC

Activity

- Design a Blended Learning solution for collaborative learning using the dialogic shamrock pedagogical framework.

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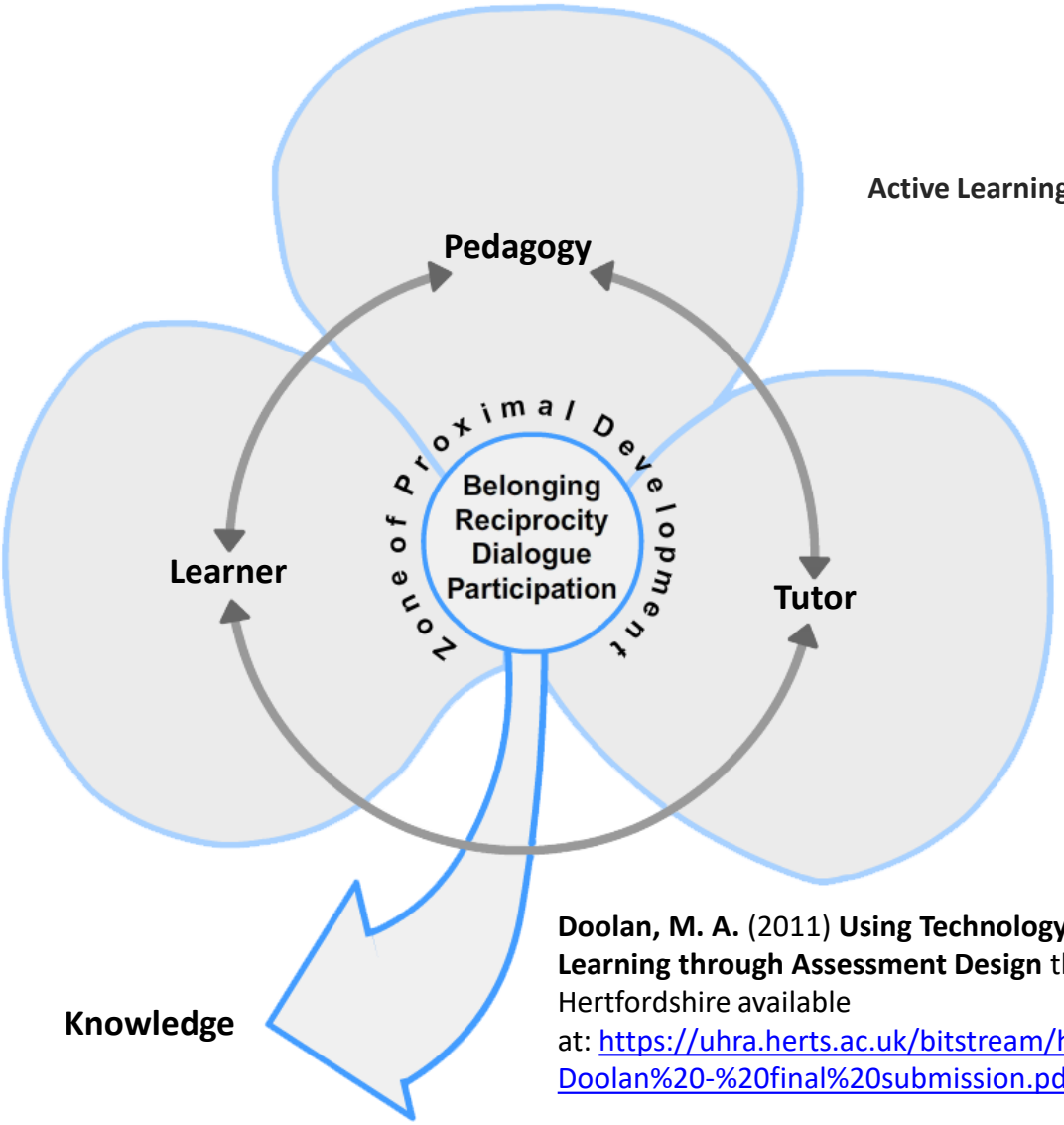

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