Making best use of technology for assessment, feedback and reflection

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Blackboard

Agenda

- ✓ Management of coursework and feedback
  - ✓ The business case for pedagogic and organisational improvements
- ✓ Assessment, feedback and reflection
  - ✓ Addressing the issues
  - ✓ Mobilising remote student engagement
  - ✓ Experiments on field trips
  - ✓ Lessons learnt
- ✓ Quantifiable educational benefits of using technology: research findings over the past 10 years around the world
- ✓ Discussion and Q&A

E-LEARNING – THE BUSINESS CASE

John Davis
Academic Director of e-Learning
Deputy Director IDC Centre in Systems

Purpose

- ***e-learning is a means to improve the experience of everyone involved in the learning process***

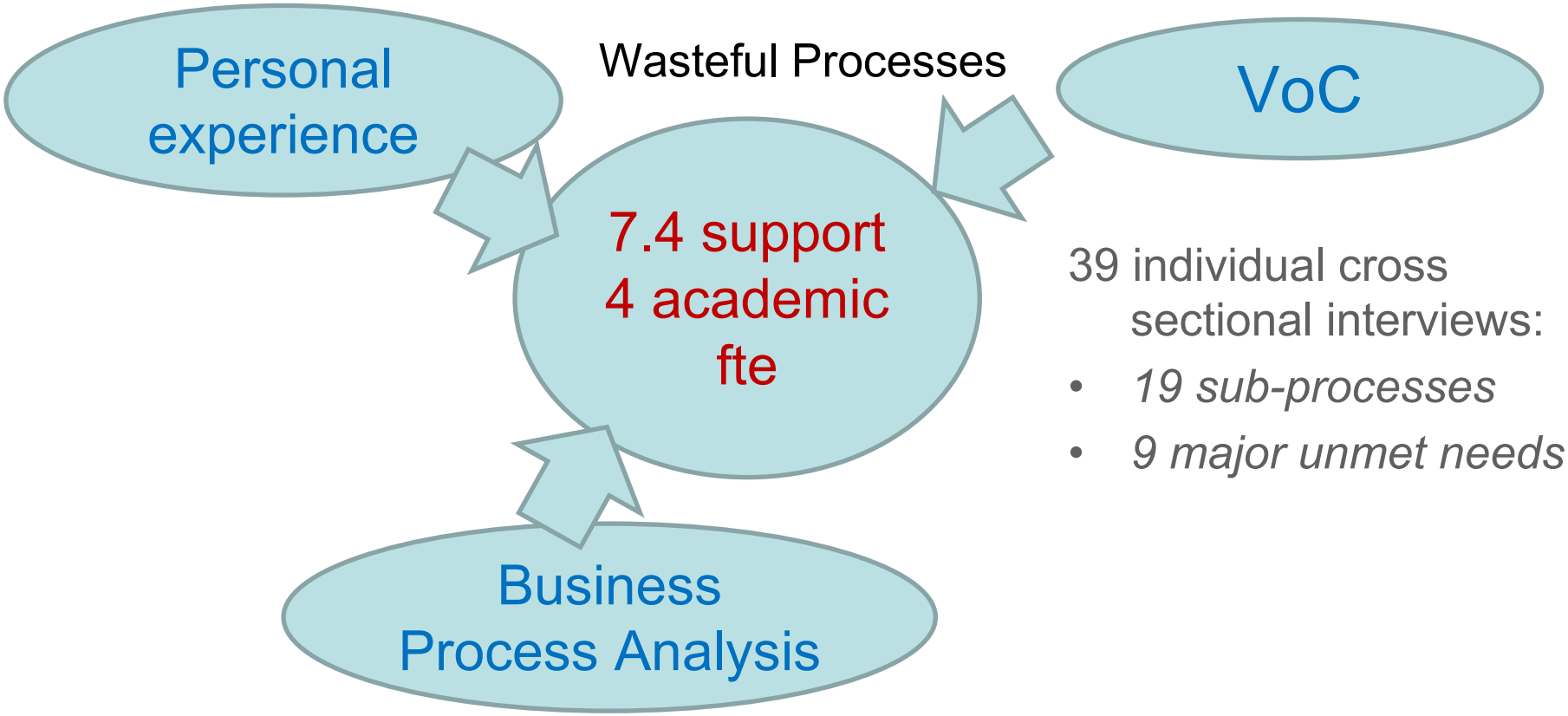
How?

The e-Learning

e-Administration

Interface

Example – Online Submission and Management of Coursework



39 individual cross sectional interviews:

- *19 sub-processes*
- *9 major unmet needs*

Business Case

- Financial Driver
  - Coursework management
- Temporal Driver
  - Repository
    - e-Reserves & Medicine
- Reputational Driver – NSS
  - Feedback and Library Resources
- Student demand Driver

Decision Making

- Total Cost of Ownership
- Building on current investment
- Speed to service

- Windows of Opportunity
- Leadership and Agility
- Building Confidence

  » Bb Learn + Assignment Handler

Implementation

- 3 yr project - started Autumn 2009
  - 1.5 extra e-learning staff
  - 1 extra library staff
  - 0.3 extra IT staff
  - 0.5 project management
- Minimise resource commitment
- Maximise pedagogical advantage
- 7 work packages
- AH rolling out now; e-reserves piloting now

Conclusion

- *e-learning is a means to improve the experience of* everyone *involved in the learning process*

- In the current climate, need to work at the e-learning / e-administration interface

University of BRISTOL

Kingston University London

Assessment, Feedback and Reflection

Tim Linsey
Head of e-Learning

Assessment and Feedback Issues

- Assessment in step with evolving pedagogies
- Authentic, complex, challenging tasks and the assessment of these tasks
- Assessment tasks as learning tasks
- Providing effective feedback that students can use – Feedforward
- Involvement of students in the assessment process
- Feedback and assessment with students working remotely from the institution

Mobilising Remote Student Engagement (MoRSE)

- Joint JISC funded project between Kingston University and De Montfort University
- Builds on earlier HEA Pathfinder projects at KU and DMU
- To develop a situated understanding of the impact of mobile and personal technologies on student and staff practices, beyond the institution, and on institutional processes
  - Work Placements (DMU)
  - Field trips (KU)

Field trips

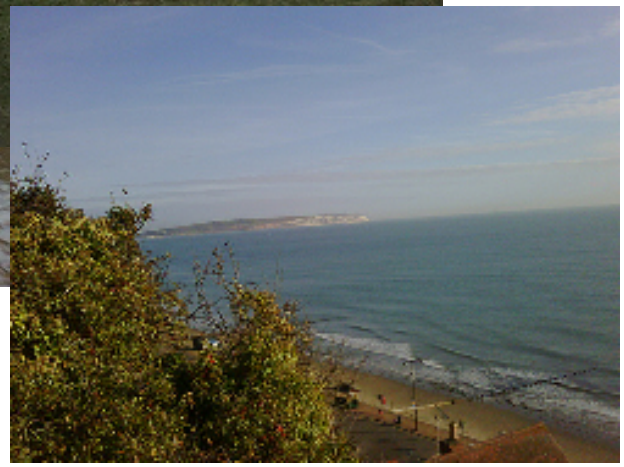
“An education in geography involves an active engagement with the external world. Fieldwork and experiential learning constitutes an essential aspect of this engagement” (QAA 2007)

“In the active learning and, by definition, experiential world of fieldwork students learning by doing, importantly by linking their thinking with their doing” (Dummer et. al. 2008; after Gibbs 1988)

Field Trips: assessment issues

- Integration of fieldwork and other aspects of the curriculum
- Co-ordination and collaboration amongst staff and student groups distributed over a study area.
- Sharing resources/collaborating synchronously and asynchronously
- Access to resources, real-time databases, ‘experts’ and support from the field.

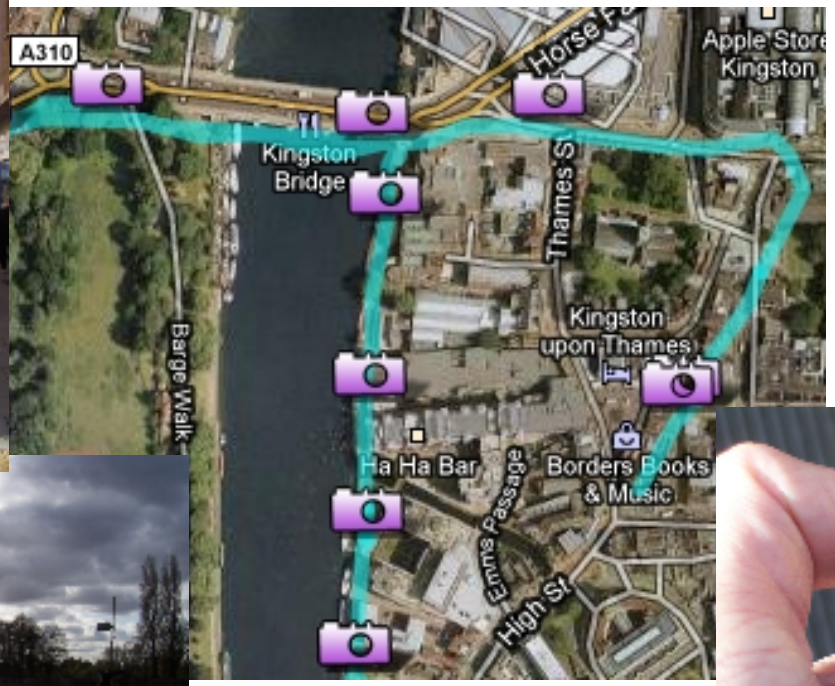
Photo sharing (Flickr)



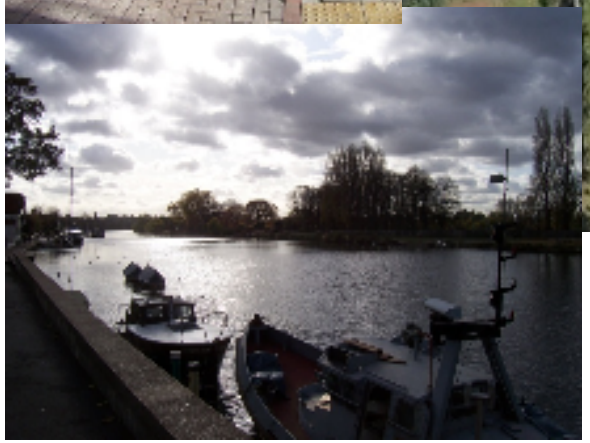
Map of photograph locations

Latitude: 50 deg 41' 52.92" N
Longitude: 1 deg 5' 54.42" W
Date: 2009:10:18 12:41:25
Comments: Looking North. Concrete walk / sea defence. Groynes visible with sediment banked on their north side indicating sediment migration southwards
Tags: IoW, Duver, Coast, Groynes,

Synchronising GPS Units with Personal technologies



Using GPicSync & Google Maps



- The disruptive nature of being away from ‘home’ affects the nature of assessment and feedback.
- For some staff the use of technologies to support these students is problematic.
- Never underestimate the need for induction linked to both personal technologies and the curriculum.
- The use of students as mentors augmented the quality and types of feedback.

Photo sharing: assessment lessons

- Enables sharing between students in the field, and with those at University. (Geo)Tagging and comments extend feedback and understanding.

- Impact on core skills of observation, identification and sketching needs further evaluation.

- Integrating mentor feedback and student/staff commentary into the production of a student's final summative assessments needs agreement.

Synchronous tasks: assessment lessons

- Enables students back at the institution to access relevant resources/real-time databases/perform analyses relevant to the location, and give feedback to the field group.
- Confirmation of sampling strategies and gaps in data collection.
- Enabling students to capture and integrate feedback in the production of their final summative assessments needs identification.

Field-trips: assessment issues

The mix of technologies to be used needs consideration in light of tasks: synchronous, asynchronous etc..

Mentors and induction help develop engagement with real-time feedback. This is crucial where reflective assessment asks are developed.

Students need support in manipulating digital resources that they capture.

Assessment: lessons learnt

- Pre-work with all staff and students is critical before the start of the placement/fieldtrip
  - Tools to be used
  - Activities to be undertaken
  - Ground rules for collaboration

- Contextualisation, and scaffolding the experience, is the key determinant of technologies to use for assessment.

Quantifiable educational benefits of using technology:

Research findings over the past 10 years from around the world

Demetra Katsifli, Blackboard
Tim Linsey, Kingston University

Blackboard learn+

Research evidence on benefits of e-learning

- ✓ **The impact of Blackboard & related technologies globally over the past 10 years** URL: bb.blackboard.com/impactoneducation

- ✓ Research from over 20 countries across the world.

- ✓ Focused on identifying the measurable benefits of using VLEs from the perspective of **students**, **lecturers**, **researchers** and the **institution** as a whole.

- ✓ Research report also presents the findings on the current debates and thinking on the future direction of e-learning.

- ✓ Carried out in conjunction with Kingston University.- members of the Academic Development team.

Some highlights – Student benefits

"Their findings showed that 93% of the students perceived the combination of face-to-face and Blackboard discussions to be the strongest part of the course." Ikiugo & Rosso (2003)**

"This study (of 625 students) found that 79% of students rated highly the use of Blackboard in their learning." Green et al (2006)

"They found that 88% of the students reported that submitting online was time-saving and 93% preferred online feedback rather than paper-based feedback handed to them." Bridge & Appleyard (2008)

** Please note all references can be found in the report published at:

bb.blackboard.com/impactoneducation

Some highlights – Student benefits

"These findings suggest that as students gain transferable skills and knowledge in online learning, their perceptions of the VLE as a positive learning tool improve. Most of the significant changes in these perceptions occurred between the first and second times that the students participated in the study, which suggests that students need to study at least two online courses before drawing conclusions about this delivery medium." Arbaugh (2004):study of 1114 MBA students.

"The students choosing the online discussions had a higher assignment mark than the face-to-face students. The study found that "rather than being disadvantaged, participants in online discussions obtained higher marks generally in their assignments than those taking face-to-face seminars, suggesting that the online route was associated with higher achievement " Campbell et al (2006)

Some highlights – Student benefits

Similarly, Rodrigues et al (2006) undertook a study on biology students from the University of Puerto Rico who undertook an e-learning enriched module in Blackboard using discussion boards. Two groups (n=51) were studied from a total of 395 students. The students who engaged more actively in the discussion boards had slightly higher scores in the final test. This finding supports that of Patzold (2005) who found that the more engaged students are with online materials via WebCT, the better their test scores and that there is a strong correlation between forum (discussion boards) activity and final grades.

McFarlin (2008) compared the grades of two groups of students. One group was taught in traditional face-to-face methods; the other taught using a hybrid approach. The hybrid group had to prepare in the first part of the course (50% of the time online) with annotated presentations, podcast, animations and quizzes available on WebCT. Both groups were treated the same in second part of course. The students in the hybrid group had 9.9% higher grades.

Summary of types of Student benefits

Freedom: to decide when to learn, when to express thoughts, to ask questions

Efficiency: saves time overall. Favourite tools: grade-book, practice tests, communication/collaboration

Active learning – via hybrid delivery led to higher grades than traditional method

Social experiences: via online activities > greater student engagement > greater retention

Online discussions v f2f tutorials led to higher achievement in assignment results

Adoption – is high only when students see the benefit.

Some highlights – Academic staff benefits

"...the main factor that determines usage (administrative and instructional) is experience with the tool; 65% of faculty members use Blackboard out of personal or professional interest; 39% as a result of attending a training class; 29% because of strong encouragement by administration; 27% encouraged by colleagues; 11% encouraged by students. However, 60% never use Blackboard as a means for developing a stronger sense of classroom community." Woods et al (2004)

"The highest level of activity was in the content folder, and the greatest number of clicks was in content, announcements, discussion board and grades. Almost 60% of clicks were on Grades and in total, 78% of all clicks were on grades, communication and announcements. Their conclusion is that lecturers primarily use Blackboard as an administrative tool." Griffiths & Graham (2009)

Some highlights – Academic staff benefits

Teachers are also turning to VLEs to help them to address practical problems related to shortage of teachers, decreased time available and increased class sizes. Feustle (2001)

"...amongst faculty members who had online teaching or development experience a majority believe that the learning outcomes are as good as or better than face-to-face instruction" ...

However, many faculty members also expressed dissatisfaction with the amount of institution support they received for online development and development and delivery activities. " APLU (2009)

Some highlights – Academic staff benefits

Across all faculty members, 34% used Blackboard to solicit a greater diversity of student opinions than is otherwise possible in the face-to-face environment and 60% indicated positive agreement with the statement that certain Blackboard features enhance or elevate their assessment of student work and instructional capabilities in the face-to-face classroom setting. Woods, et al (2004)

A total of 82% agreed or strongly agreed that Blackboard helped them to more clearly communicate information about course procedures and requirements and 66% agreed that Blackboard helps them to better meet the educational needs of students. Finally, 65% agreed that Blackboard helped them to better manage their time with regard to administering the course and its requirements and 62% agreed that Blackboard enhanced their students' ability to learn course materials. Woods, et al (2004)

Some highlights – Academic staff benefits

APLU (2008) undertook 231 interviews with administrators, lecturers and students across 45 public universities in the USA. They concluded that online learning programmes have the potential to change campus culture provided that senior people within the organisation are fully engaged in delivering the message that online learning is fundamental to the pedagogic mission of the institution. Online learning must be a key component of strategic planning.

One of the findings from this study was that the integration of Blackboard enabled diverse approaches to teaching and learning, sometimes in ways that could not be achieved by traditional methods.

Summary of Academic Staff benefits

Efficiency: save time but initial investment in preparation

Commonly used tools: content, grades, communication, discussion boards & announcements

Pedagogic benefits: Bb helps to improve assessment of student work and the instructional capabilities in a f2f classroom setting. Bb helps overall to meet educational needs of students. **Improved results**: Bb students of pre-lab activities outperformed f2f students

T&L practices: analysis shows 90% of all activities are on 6 features, suggesting a need to improve training for academics to improve how they exploit technology.

Some highlights – Researcher benefits

"Her findings showed that the experience of conducting an online focus group was a positive one. Advantages such as cost savings and convenience for both researcher and participants were identified. This study demonstrated that participants could be actively engaged over a 2-month period and that group interaction could be achieved to collect richly detailed research data." Kenny (2005)

The Technology Acceptance Model shows the main factors that influence the acceptance of technology are the 'perceived usefulness' and the perceived ease-of-use. "(van Raaij & Schepers, 2008)

Some highlights – Institutional benefits

JISC (2008) summarised the tangible benefits that emerged from 37 projects they funded through the e-Learning , e.g.

- "e-Assessment project at the University of Nottingham could be widely implemented across the Business and Health subjects with an indicative £7m saving for the sector in terms of staff time.
- Student achievement gains of approximately 10% which could represent 30,000 additional graduates across the UK sector.
- Clear evidence of improved student retention.
- Schools of Medicine and Veterinary Science are able through e-Learning, to increase student numbers without increasing resources. It is notionally estimated that an increase of 1% in student numbers could result in £11m for the institutions concerned.
- Evidence that e-Learning can benefit learners with special needs."

Summary of Institutional benefits

Total cost of ownership:

- Hardware, software, human resources
- Level of use by staff and students
- Level of result / outcome, mainly learner outcome

Only the first has been measured successfully

Online institutions of hundreds of thousands online students get better ROI than traditional institutions

Summary of Institutional benefits

Generally, the research shows that academic staff are not trained sufficiently in the potential use of the technology. The ROI for the institution is therefore not maximised in terms of efficiencies and improved learner outcomes.

Need for institutional strategies and policies to support, develop and reward teachers / lecturers

Thank you.
Discussion, Questions.

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