Abrupt Transformation at GCU

The Caledonian Business School (CBS) at Glasgow Caledonian University (GCU) introduced a variety of learning technologies during the REAP project, and makes a case study with three noteworthy features:

- The scale of change: multiple new technologies introduced in the same one-year time frame.
- The context of change: significant progress made against a backdrop of extensive re-structuring within CBS.
- The approach to change: The integration of a "top down" approach with a perceived need by lecturers to improve student feedback. This means that the institutional level was important in introducing change, as well as the course team level.

Thus relative to its partners and to most e-learning change reported in the literature, GCU is a "big bang" approach to change, and one that is less reliant on self-volunteering enthusiasts. This makes it an interesting test-case for the feasibility of fast change in the sector.

Institutional preparation

Although the introduction of new technology with the REAP project was on a large scale and sudden, there was a considerable organisational lead-up to it. GCU had already adopted a VLE, which CBS had piloted in 2000 as an early adopter; CBS had created a dedicated academic post from 2001 to promote e-learning within the School, with the post-holder liaising closely with relevant support staff from across the University; and Gilly Salmon, a well-known expert in e-learning, was appointed as a CBS visiting professor from 2002.

Large change

Most e-learning implementations, in REAP as in Twigg's programme, have been local in the sense that one course was redesigned while the other courses in that department, and the other courses the students were taking, remained much as before. During 2006-7, multiple changes were introduced simultaneously in the CBS which is the largest school in the University.

- EVS (electronic voting systems) were introduced into three of the core first year modules, where they were used in large lectures.
- Weekly Multiple Choice Question (MCQ) tests administered on the VLE were introduced into two modules (one first, one second year).
- Staff feedback on student essays (central to business school teaching) was made using software that offers a (digitally stored) comment bank in two third year modules.
- Summative online exams for a large cohort of students were introduced for one module
- PebblePad was introduced to support Personal Development Planning for students in three modules.

Evaluations

Evaluations analysed so far indicate that the majority of staff and students believe that learning gains have been achieved. 77% responded that EVS "was beneficial to their learning". A typical quote about the weekly MCQ quiz is "... the weekly tests ...

made me learn more than with other assessment methods". The comment bank software for supporting essay marking led to students getting feedback more quickly, and (according to the students) getting it electronically increased the likelihood of it being used and useful. Similarly PebblePad drew favourable comments suggesting the students felt it was prompting more reflective learning.

Current plans are to continue the use of all four technologies.

Organisational and course-team levels
In many reported cases, new technological initiatives are led by enthusiasts from below, whether they are enthusiasts for a particular technology or for improving some aspect of their teaching. This of course has weaknesses: many initiatives die as soon as the original enthusiast moves on, and change is dependent upon staff volunteering themselves. It means that in most cases, effective change depends mainly on the course-teams who control the design of courses. In the GCU case too one factor was a group of staff interested in improving the students' learning experiences through technology introduction, but another major factor was management interest and action, which is particularly important in cases of large change with considerable resource implications. Thus the organisational level was crucial here.

Adverse circumstances
The timing of the project was not ideal as CBS was undergoing a major re-structuring with new subject groupings being created and staff re-located, and some staff losses. Not only does restructuring take away attention from teaching innovation, it often reduces interest in it because any changes made are likely to be immediately lost to the individual making them if they are reassigned to other courses, and lost to the courses since the replacement person may not have the same interest or capability for making the change. A remarkable feature of this case is that large scale change was nevertheless possible, seems to have been successful, and is on course to persist and expand.

Other features / conclusions
This relatively "big bang" approach was made possible because the REAP project allowed:

- the injection of funds that bought equipment
- technical support from the project partners (in setting up equipment, and attending many lectures to support it), some evaluation data collection, and some staff training and pedagogical advice.

There are some indications that this support from other institutions was seen as raising confidence in the worth of the changes embarked upon. This demonstrated a cross-institutional collaboration not normally part of how the sector operates.

There were also some advantages inherent in this "big" approach, due to the way colleagues were all involved together, and shared experiences. For instance, a staff session was run near the end of the first semester in which lecturers using EVS each shared new tips and techniques they had developed. This is not possible in the typical change approach in other institutions that relies on scattered enthusiasts and early adopters, rather than colleagues in the same school. However there were also emergent enthusiasts within the larger group of new users, and a novel pedagogical use (i.e. having students design EVS questions for use in their presentation to the class) was devised, just as happens in enthusiast-driven change. Another advantage

of the "big" approach was inadvertently demonstrated too: the larger group seems robust against a dependence on individuals to maintain the changed approach.

Almost all the changes to teaching occurred in 2006-7. The data has not yet been analysed in detail. A major case study is in preparation.

For further information see, www.reap.ac.uk
Steve Draper & Linda Creanor, July 2007.