

# Scottish Funding Council e-Learning Transformation Programme Project Completion Report (end of funded phase)

## **Project details**

Project name and acronym, project website

Lead institution, name and contact details for key contact

Partner institutions

Re-Engineering Assessment Practices Project (REAP)

[www.reap.ac.uk](http://www.reap.ac.uk)

University of Strathclyde (Lead)

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University of Glasgow (Partner)

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Glasgow Caledonian University (Partner)

Contact name: Ms Linda Creanor ([L.Creanor@gcal.ac.uk](mailto:L.Creanor@gcal.ac.uk))

## Project outcomes

Briefly summarise the main outcomes (changes in state or behaviour) as a result of the project activities. Refer to other outputs, reports and papers as appropriate.

The Re-engineering Assessment Practices (REAP) project involved the implementation and evaluation of innovative models of assessment practice supported by technology in large cohort first year modules (classes), across three Scottish HE institutions – the University of Strathclyde (lead partner), Glasgow Caledonian University Business School and the University of Glasgow. Assessment principles were defined which were used to guide the redesign of first year modules (classes) and to evaluate the added value of technology applications. The technologies used to support redesigns included podcasts, blogs, electronic voting systems, online tests, e-portfolios, discussion boards, simulations, intelligent homework systems and feedback software. The REAP activities also resulted in the development and embedding of new approaches to assessment in the educational strategies of two of the partner institutions.

Assessment in REAP is defined broadly to include tutor, peer and self-assessment and feedback processes, both formal and informal. In practice, professionals not only assess their own learning but they also formulate the criteria against which to evaluate progress. In the REAP project, the goal has been to design assessments that develop learner self-regulation and the skills required for lifelong learning.

The main outcomes of REAP have been

- The redesign of 19 modules (or classes) supported by technology with 10 at the University of Strathclyde, 3 at the University of Glasgow and 6 at Glasgow Caledonian University. There were also some 'proof of concept' exploratory implementations in additional GCU modules. Module/class size ranged from 160-900 and over 6000 students participated in the redesigned modules/classes.
- The demonstration of learning quality improvements and/or cost-savings across most of the module/class redesigns.
- The development of a robust set of assessment principles; these were used to guide module redesign and evaluate success in relation to the development of learner autonomy and self-regulation.
- The development of revised assessment strategies in two of the participating institutions drawing on the REAP assessment principles: these strategies built on the findings of REAP and supported processes of embedding.
- The identification of some important assessment re-design patterns that have general applicability across the disciplines.
- The implementation of electronic voting in a range of modules across the three partner institutions.
- The development and piloting of an assessment and feedback questionnaire (AFEQ)
- A programme of dissemination activities across the higher education sector both nationally and internationally, including an online conference with over 400 participants from over 40 countries

## Project outputs

List the project outputs and indicate where these can be accessed.

Account for any variance between this list and the intended outputs listed in the project plan (e.g. additional outputs that were not initially foreseen or planned, or changes to the list of intended outputs as the project progressed).

Please record where any content will be made available and confirm that it will be accessible to SFC funded institutions.

A wide range of outputs are available on the REAP website ([www.reap.ac.uk](http://www.reap.ac.uk)) including:

- Case studies telling the stories of assessment redesigns for most classes/modules presented in different formats for easy access. This includes an introduction to the redesign, an 'at a glance' view of the key features, a summary of the implementation, an analysis of the redesign against REAP assessment principles, the full evaluation data including information on any learning and efficiency gains and any publications deriving from each case study.
- A set of five senior management briefing papers on REAP themes. The titles are: i) The nature of the REAP project, its achievements and some lessons learned. ii) Assessment as a driver for transformational change. iii) Managing transformation in a post-92 university iv) Interactive

lectures and electronic voting systems and v) Managing transformational change: course redesign using ICT.

- Institutional strategy documents relating to assessment redesign
- Guides and resources on use of electronic voting systems, e-portfolios and other software tools.
- Conference presentations (over 40), publications (8 papers) and reports deriving from the REAP project.
- A range of archived materials from the REAP Online International Conference on '*Assessment for Learner Responsibility*' held from 29-31<sup>st</sup> May 2007. This includes conference keynotes, a further 35 cases studies of technology-supported assessment modules, the outputs of synchronous and asynchronous discussions and case study presentations. 400 delegates from over 40 countries participated in this conference.
- The original bid document and all reports to JISC.

The REAP project exceeded the objectives outlined in the original plan. Additional activities included:

- Five additional redesigned modules at the University of Strathclyde and one additional redesigned module at Glasgow University
- The collation of 35 further cases of technology-supported assessment modules drawn from the international community
- A wider range of dissemination activities than proposed, including journal papers, workshops and presentations, JISC and QAA Scotland publications and newspaper articles.

Objectives not met in the timeline but still planned include:

- The production of a book on the work of REAP

As part of a planned examination of the institutional impact of REAP at the University of Strathclyde a scenario planning exercise involving senior management and heads of key support services (IT, Registry, Estates etc.) was originally planned for June 2007. As a result of on-going activities associated with the university's strategic plan this exercise has now been re-scheduled and will take place during the first semester of academic year 2007/08. Outputs from this exercise will be published on the REAP website.

All of these materials will remain on the REAP project website by the University of Strathclyde for at least 3 years after the project end date as agreed in the original plan. The project team have authorised archiving of the project website by the JISC/ UK Web Archiving Consortium at the University of London Computing Centre. It should be noted, however, that plans are being discussed across the REAP partners about developing and enhancing the REAP website as a source of advice on technology supported assessment for the HE sector.

### **Intellectual Property Rights (IPR) issues**

Please describe your experience and difficulties relating to IPR and what measures the project team adopted to deal with these.

If appropriate, include a statement regarding third party permissions and licences for accessing outputs.

Please confirm that all necessary permissions have been granted and attach permissions and licences.

None of the pilots supported by REAP were engaged in the development of re-useable intellectual content using project funding (where content has been developed this has been supported by departmental funds). The REAP team is happy to negotiate the deposit to JORUM of any relevant project outcomes including case studies, reports or other materials of use to the teaching and learning community. All case studies submitted to the REAP conference and transcripts of online discussions have been archived and are also freely available from the REAP website.

### **Project team members**

List the key staff members who were involved with the project and briefly summarise their current/future professional roles ('what are they doing when the project finishes?').

Project staff:

**At the University of Strathclyde:**

Project Director: Dr David Nicol (remains in current role)

Project Manager: Ms Catherine Owen (FTE: contract extended until March 2008)

Support Officer: Mr Martin Hawksey (FTE: contract extended until March 2008)

Support Officer: Ms Jenny Booth (FTE: left the project in May 2007 to join a digitisation project at Edinburgh University)

Senior Evaluator (part-time), Michael Coen (remains in current role)

**At Glasgow Caledonian University:**

Project Co-ordinator: Dr Gillian Roberts (retired in July 2007)

Project Evaluator: Ms Linda Creanor (remains in current role)

**At the University of Glasgow:**

Local Project Coordinator: Dr Steve Draper (remains in current role)

Project Evaluator: Ms Mel McKendrick (FTE: contract extended until September 2007)

Project Evaluator: Ms Pippa Markham (FTE: left the project in May 2007, retained as a part-time consultant)

## Dissemination activity

List the dissemination that has taken place (or is planned) about project findings and outcomes, e.g. journal articles, conference presentations, roadshows. Provide web references where appropriate.

List (and reference where appropriate) any publicity the project has received, e.g. press coverage, awards.

## Dissemination (see Appendix 1)

National and international dissemination of REAP activities have been extensive and exceeded original plans. **Appendix 1** provides a list of workshops, conference presentations, publications including journal articles, newspaper reports deriving from the REAP project and future plans. Two items are noted here, the REAP International Online Conference and a submission of REAP for a Times Higher Award

All project dissemination deliverables including presentations and papers are available from the project website at: [www.reap.ac.uk](http://www.reap.ac.uk).

## REAP International Online Conference <http://ewds.strath.ac.uk/reap07>

This REAP International Online Conference entitled 'Assessment design for Learner Responsibility' celebrated the outputs of the REAP project internationally and collated further case studies of exemplars of good practice in assessment. The conference was held entirely online during May 2007, attracted over 400 delegates from more than 40 countries. The conference had three strands (i) institutional strategies for assessment (ii) great designs in assessment and (iii) assessment and the first year experience – and included keynotes from world-renowned experts in assessment such as Professor Mantz Yorke (UK), Professor David Boud (Australia), Professor Trudy Banta (USA) and Professor Derek Rowntree (UK).

A call for submissions resulted in the development of an archive of 60 international case studies of good practice in assessment (35 technology-supported implementations in tertiary education) with 20 of these case studies selected for discussion in synchronous chat rooms and asynchronous discussion forums. Results of a post-conference evaluation questionnaire showed that:

- The role designations of participants were as follows: Heads of Department/Policy makers (14%), Lecturers/Tutors (47%), Educational Developers/Learning Technologists (25%) and Researchers (14%)
- 90% of respondents were satisfied with the conference
- The quality of keynotes, case studies and discussions were highly commended

- Participants greatly appreciated the flexibility of being able to attend an international conference without leaving the office and of being able to interact with world experts on a one-to-one basis.
- The following map shows the participation in the conference referenced to world location



**Figure 1:**  
**Location of international visitors to REAP conference website May – July 2007 (9,500 hits):**

The REAP PROJECT was also submitted for a **Times Higher Award** for the Best use of ICT to support Institutional strategies. The shortlist should be announced in September 2007.

## **Sustainability**

Explain how the outputs and outcomes of the project will be taken forward. Say whether the original consortium agreement been adapted or extended to facilitate this.

Please identify any barriers to embedding or sustaining the project outcomes, highlighting any scope for follow-up work by the SFC or JISC.

### **Sustainability of assessment re-designs in participating institutions**

This section is about sustainability of the local departmental assessment redesigns.

All of the departments at the University of Strathclyde and the University of Glasgow are committed to sustaining and improving the assessment re-designs produced through RAEP. Information about departmental plans is available in **Appendix 2**. It is noteworthy that many departments are planning to extend the benefits achieved through their redesigns to later years of study and in other disciplinary contexts, thus building on the work as well as embedding and sustaining it.

At Glasgow Caledonian University Module leaders and e-champions are committed to supporting the further roll-out of new technologies and techniques across the Caledonian Business School and to the wider university community. Examples of sustaining activities include planned improvements to existing pilots and/or additional departmental commitments (see Appendix 1)

### **Strategic sustainability**

Sustainability also requires top-down strategic support. This has been developed through REAP and will continue beyond REAP through further planned activities.

### **University of Strathclyde**

As a result of the success of the pilot redesigns at the University of Strathclyde, Academic Committee asked the REAP project director to chair a working party to examine and revise the university's assessment policy. The Assessment Working Group (AWG) was convened in January 2007 and it has already produced a paper incorporating and refining the principles of good assessment derived from REAP with examples of practice, including technology-supported practice. The Academic Vice-Deans of

all five faculties agreed that this document and the examples should be widely disseminated within Strathclyde. The AWG is continuing its work with the intended outcome being not only a completely revised assessment policy but also detailed plans procedures for its implementation during 2007/08. As part of the implementation plan, the AWG has recommended that additional departments engage in assessment redesign activities using the principles document as guidance. Internal funds will be provided to support further successful redesigns. The departments already involved in REAP will be asked to support others to develop and implement further assessment re-designs.

### **University of Glasgow**

At the University of Glasgow, there is a commitment to the continuation of electronic voting technologies - support now being provided centrally based on the REAP developments. Although institutionally-focussed transformation activities at the University of Glasgow were not part of the original REAP project plan, senior management, including the Vice-Principal for Teaching and Learning and the Director of the Teaching and Learning are involved in discussions about extending REAP activities further across Glasgow University. It has already been agreed that the collaborative relationship brought about through REAP will continue and develop.

### **Glasgow Caledonian University**

New and revised module descriptors incorporating REAP principles for all modules in the Caledonian Business School have been approved for introduction from session 2007-08. Linda Creanor from the Caledonian Academy will lead on promotion and adoption of REAP aims at a strategic level for GCU and activities have begun to encourage and promote dissemination and implementation across other schools in GCU. The Director of the recently formed Caledonian Academy will support the linking of REAP and its roll-out to strategic performance targets defined by the institution in the areas of progression and flexible delivery.

### **Consortium Agreement**

The project consortium agreement has not been extended beyond July 2007, as on-going project activities are already well established at each institution. It is anticipated however that a range of formal and informal working relationships between the University of Strathclyde and its two project partners will continue, particularly in sharing expertise in technology implementation and to support as new courses and classes adopt REAP-style re-designs.

### **Key messages**

Briefly outline the key lessons learned through the project to inform:

- Future projects
- The Scottish Funding Council and JISC Programme Management
- The further and higher education sector

(Topics here might include: whether any original aims and objectives changed and why; what you would have done differently; any lessons learned about working with project partners; lessons around project management of such large scale projects; additional support that you feel would have been useful).

### **Lessons for future projects: future projects**

An analysis of the lessons learned through the REAP project have been summarised in five recently produced senior management briefing papers that are available on the project website ([www.reap.ac.uk](http://www.reap.ac.uk))

The following are some lessons that might help those wishing to replicate assessment re-design activities using ICT in their own institution:

#### Clear Objectives: pedagogical and practical

Deriving significant benefits from ICT in education requires careful planning. Benefits are more likely to be achieved by redesigning classes and courses with particular objectives in mind. Clear pedagogical objectives linked to a robust rationale should underpin development activities. In the REAP project, the objective was to increase learner-self regulation. This objective was defined in relation to a set of assessment principles drawn from the research literature. These principles guided

the selection of local departmental projects for funding, were used as the basis for redesigns and formed part of the criteria underpinning the evaluation.

As well as pedagogical objectives there are usually practical objectives such as demonstrating cost saving or efficiencies gains through course redesign. REAP showed that you are more likely to achieve these benefits from redesigns with technology if the redesigns are carried out with the desired benefits clearly in mind in advance of implementation (learning gains, cost savings) and when these objectives are converged towards through responses to ongoing formative evaluation.

#### Evaluation:

A coherent approach to evaluation should be adopted with considerable support provided to departments. Most academics do not have the skill or the time to carry out evaluations but if the institution is to build on successes then evidence must be forthcoming. Such evaluations should be formative in nature so as to encourage continual refinement from pilot to full implementation.

#### Collaboration and ownership:

Experience and research shows that, where possible, module or course redesigns should involve module/course teams rather than isolated individuals. This will promote sustainability and is more likely to lead to a coherent student experience and efficiency gains.

#### Strategic thinking

Local redesign implementations in departments and faculties should be linked to strategic developments in the institution. In two of the participating institutions, the REAP assessment principles were incorporated into the institutions' teaching, learning and assessment strategies. This helped build on local developments and validated the value of further redesigns across the institution.

#### Dissemination

Project outputs and findings should be widely disseminated within the institution and externally. Internal dissemination helps create a culture of continuous development whereas external dissemination ensures that implementations are compared against current national and international developments. Also, importantly external dissemination and recognition often has a positive backwash effect on the participating institutions.

### **Lessons learned: enhancing sustainability and embedding:**

While the operational context is critical to the choice of tactics to ensure embedding and sustainability, a number of factors can increase their likelihood. These include:

- A widely discussed and shared institutional strategy for teaching and learning (and e-learning)
- Linking local implementations to a strategic driver and to recognised needs within the institution (e.g. reduce the assessment burden, enhance group working, provide greater support in the first year)
- Involving all members of a course team in the redesign.
- Involving a range of disciplines in redesigns to demonstrate broad applicability of findings
- Support for staff to help them make educationally sound choices about the use of technology in redesigns.
- Evidence based evaluation where proof of concept can be demonstrated
- Common evaluation criteria across all redesigns – this ensures that the reasons for successes and failures of individual designs can be identified
- Having a roll-out strategy that builds on the successes of initial implementations.
- Sharing success stories across the institution including the provision of opportunities for personal dissemination by those teaching redesigned courses.
- Explicit senior management support including project reporting at a senior level.
- Providing user centred services that make it easy for staff to adopt new approaches (e.g. in REAP, providing a one-stop shop where advice on all the issues associated with the use of electronic voting technologies could be acquired).
- Central institutional support for new software applications and for their integration with other systems may be required longer term, depending on the institution.

## **Lessons for the Scottish Funding Council and JISC Programme Management**

The following lessons are likely to be applicable both to institutions wishing to engage in strategic re-design activities and also to funding bodies and support agencies designing and managing projects or programmes of re-design:

### Project Management:

Managing a programme where there are multiple course redesigns requires robust project management processes, to evaluate proposals for funding, to manage contractual arrangements, to chase up reports, to organise staff development events, to ensure evaluation data are collected at the right time and where required to produce reports and liaise with funding bodies. Academic staff may not have the skill to carry out such administrative activities. REAP showed that a central project manager can facilitate the smooth operation of such programme activities. Some departments also found it productive to allocate a local project manager to organise meetings of staff, to produce reports, to liaise with the central programme team and to manage other activities.

### Pedagogical support:

Experience in REAP shows that carrying out a complete redesign of teaching and learning using technology is a complex process. REAP has shown that a high level of support in producing redesign plans at the outset has a large payoff but departments might also require advice when building on the findings of formative evaluations. A clear pedagogic framework is at the heart of the best module or course redesigns using technology. Whatever the stated educational objective (enhance flexible delivery, put learners in control) such abstract objectives must be converted into pragmatic principles that practitioners can actually turn into actions in their own context. The REAP project began with a set of assessment principles, and experience has led us to consider others: but it has also confirmed the usefulness of clear thinking about principles in supporting new course designs by staff. There is a great deal of research in this area but it is unlikely that academic staff will be familiar with this literature.

### Technological support:

The need for technological support can vary at departmental level as some departments (e.g. engineering and science) may have technical assistance. Central support staff can provide training and in use of new technologies and in REAP were involved in developing guidelines on software applications. The main point is that failure to address technological issues can seriously damage motivation and discourage participation in course redesign.

### Evaluation:

A coherent approach to evaluation should be adopted within large-scale projects. If an institution is to build on its successes, and other HE institutions are to learn from funded projects, then there is a need for robust evidence of benefits. Policy-makers and funders should put evaluation high on the agenda when commissioning future projects. Evaluation teams could work with funded project teams after funding has been agreed to establish an evaluation plan. Alternatively, proposals for funding might require the inclusion of a robust evaluation plans at the outset. The timing of funding however should allow for the collation of baseline data before the project begins. This proved difficult in the e-learning transformation projects.

### Project funding (at module level)

While funding is usually required to legitimise change in modules and courses, the level of funding required need not be high for local pilots. In the REAP project the sum required to pilot module innovations was around £7-12k depending on need. Contrary to common belief such monies were rarely used to release staff time as those teaching courses generally had to be involved in their redesign. Experience indicates that funding was used in different ways by different departments, for example, to employ a local project manager, to buy equipment or software licenses, to buy in local technical support or specialised training or to develop content.

### Managing partnerships

All three main partners in REAP benefited from mutual exchange of expertise and experience during the lifespan of the project. For example, REAP team members from the Universities of Strathclyde and Glasgow supported the large-scale introduction of EVS in CBS. However, while there are significant benefits to cross-institutional partnerships (wider pool of expertise, sharing risk, organised dissemination) there is a tension between managing transformations within a single institution versus

managing transformation across a number of institutions simultaneously. This is particularly pronounced at project start-up. .

## **Lessons for the further and higher education sector**

Assessment has a wide-ranging influence on educational, business and/or organisational activities and it directly affects the way teachers and students interact and hence the balance of responsibility for learning. REAP has demonstrated that the application of new technologies to support new assessment activities can produce positive benefits:

### Learning and workload gains

REAP has shown that when students are re-conceptualised as partners in assessment, and when technology is harnessed in the assessment design, significant learning and workload gains are possible even with large first year classes.

When working in groups in online environments, around structured but open-ended learning tasks, it has been shown that students become more self-reliant seeking feedback and support from each other rather than just from the teacher. They invariably challenge each other and this promotes higher levels of individual learning while at the same time they also scaffold each other's understanding and development. By extending feedback, to include peer and self-generated feedback, the REAP redesigns have shown that it is possible to reduce teacher workload without any loss (and sometimes an enhancement) in learning quality.

### The role of technology

In the REAP project, technology has helped facilitate self-assessment and supportive social and peer assessment and feedback processes. At the core of many of the best redesigns are enhanced academic-social interactions. In interviews, students have responded positively to the use of technology because the kinds of digital media that they find familiar (social software), and that support their activities (business and leisure) outside the university, are being used to support their formal learning in university. Students have experienced new, and more flexible, ways of interacting with each other in academic contexts and with learning resources. But at the same time their learning has become more structured in the first year. A key message from REAP is the need to structure learning carefully when using technology but to build in the kinds of flexibility that help develop learner responsibility and address learner needs

Technology also supports teachers. For example, it can provide them with the ability to monitor group interactions as they happen online, and to intervene to clear up misunderstandings when required, but without providing unnecessary feedback or dominating discussions. This is a more economical use of the teachers' time and it helps avoid over-teaching, but again it does require the careful design of learning tasks.

### Cost-benefits of assessment redesigns

The REAP data from the assessment redesigns has not been fully analysed at the time of this report. Nonetheless there are many examples of learning quality gains and/or cost savings through these redesigns. The REAP team are therefore confident that these findings are transferable to other institutions and disciplinary contexts. The following are two examples of the findings from the REAP redesigns.

In one first-year Psychology class, a single teacher was able to organise rich and regular peer feedback to 560 students on a series of online essay writing tasks. This resulted in an increase in mean exam marks (from 51.1% to 57.4%) with some students producing work at second and third year standard.

In a first year Mechanical Engineering class with 250 students, teachers were able to cut homework marking in half (a saving of 102 hours) by encouraging students to engage in self-assessment using an online homework system without any drop in exam performance. The time saved was used to increase personal tutor-student contact. These examples were effective because the sources of feedback were extended beyond the teacher through planned and carefully structured learning tasks.

## **Financial Statement**

Provide a final financial statement, accounting for any variance from the agreed budget.

**See Spreadsheet and Notes on Variance from original budget. Both provided as separate attachments**

Dr David Nicol  
Director REAP Project  
Deputy Director  
Centre for Academic Practice and Learning Enhancement  
University of Strathclyde  
31 July 2007

## Dissemination of REAP outputs: nationally and internationally

2007

## Conferences and Workshops

- Draper, S and Owen C (2007), *Designing with technology to enhance learner responsibility: shifting control through assessment practices*, Workshop at ALT-C Conference, University of Nottingham, 4-6<sup>th</sup> September.
- Owen, C (2007), Presentation on REAP to Higher Education Academy: Centre for Bioscience event at University of Glasgow, 30<sup>th</sup> August.
- Owen, C (2007) Findings from REAP, White Space II Event, University of Abertay, Dundee, 15<sup>th</sup> June
- Nicol, D and Draper, S (2007) *Understanding the prospects for transformation*. Presentation and facilitated discussion at JISC Online Conference: Innovating e-Learning, June 11-12<sup>th</sup>
- Ross, M and Welsh, M (2007). International Society for Teacher Education Conference, Glasgow, June
- Ross, M and Welsh, M (2007), Teacher Education Teacher's Work Synergy Conference, Stirling, June
- Nicol, D (2007) *Principles of good assessment and feedback: theory and practice*, REAP International Online Conference on Assessment Design for Learner Responsibility, 29<sup>th</sup> May
- Nicol, D (2007), Assessment for Learner Responsibility, Sheffield-Hallam University Learning and Teaching Institute: Assessment Week 2007, Sheffield, 14<sup>th</sup> May
- Nicol, D and Owen, C (2007), Technology-supported assessment: adding value not effort, Queen Margaret University, Edinburgh, 9<sup>th</sup> May
- Nicol, D (2007), *Technology supported assessment: principles and practise*. Invited keynote address, Eighth Educational Technology Conference, Dublin Institute of Technology, Dublin, 24<sup>th</sup> May
- Ross, M and Welsh, M (2007), REAP paper and panel session, International Conference on Blended Learning, Brazil
- Nicol, D (2007), *Technology-supported assessment: adding value not effort*. Invited presentation at Professional Development Conference for Teachers in Higher Education, University of Staffordshire, Stoke on Trent, 11<sup>th</sup> May.
- Booth, J (2007) REAP presentation at Pebble-PAD Users Seminar, Wolverhampton, March
- Draper, S (2007), *New thinking and practice in HE assessment and feedback*. Presentation at University of Edinburgh, 29<sup>th</sup> March.
- Nicol, D and Draper, S (2007), Assessment, social processes and the first year experience, Presentation at the QAA Enhancement Themes Conference, 8<sup>th</sup> March
- Nicol, D (2007), The REAP project, Presentation tot the Learning Enhancement Network, University of Strathclyde, 23<sup>rd</sup> February 2007
- Nicol, D (2007), *Technology-supported assessment: adding value not effort*. Invited presentation at University of Bristol, 12<sup>th</sup> February.

- Nicol, D (2007), *E-learning and its cost-benefits*. Seminar for Senior Managers from FE and HE. Event organised by the Centre for Excellence in Leadership, British Library, London, 8<sup>th</sup> February
- Nicol, D (2007), *Assessment designs that enhance learner responsibility*, Presentation to the Advisory Committee of the Higher Education Academy, Education Subject Centre (ESCalate) Conference, Lancaster, 7<sup>th</sup> February
- REAP workshop: CRA/HEA Conference, Edinburgh, April 2007

## 2006

### Conferences and Workshops

- Nicol, D (2006), *Increasing success in first year courses: assessment re-design, self-regulation and learning technologies*, Presentation at ASCILITE conference (published in refereed proceedings), Sydney, 3-6<sup>th</sup> December.
- Nicol, D (2006), Presentations of REAP work at University of Sydney and the University of New South Wales Sydney, December.
- Draper, S (2006), *New working ideas in HE assessment and feedback*, Assessment in Lifelong Learning Conference (ESCalate), Birmingham, November.
- Nicol, D (2006), Perspectives on e- Assessment. Presentation to Heads of E-Learning UK (HELFF Forum), University of Nottingham, 3<sup>rd</sup> November.
- Nicol, D (2006), *Increasing Success in First Year: Assessment Redesign*, Presentation at Teaching and Learning Centre, University of Glasgow, 26<sup>th</sup> October.
- Nicol, D (2006) *Harnessing technology to address strategic challenges: prospects for transformational change*, Presentation at 'ICT in Higher Education: inaugural senior leaders' and managers event' on e-learning' The Barbican Centre, London, 24<sup>th</sup> October
- Nicol, D and Haywood, J. (2006), 'E-assessment: roles for ICT in formative and summative assessment'. Workshop delivered at 'ICT in Higher Education: inaugural senior leaders' and managers event' on e-learning' The Barbican Centre, London, 24<sup>th</sup> October 2006
- REAP workshop (2006), Personal Response System showcase event at Glasgow Caledonian University: Business School, October
- Nicol, D (2006), Making Assessment more Effective: Research and Practice, Presentation, to staff taking postgraduate certificate in teaching and learning at the University of Durham, 26<sup>th</sup> September
- Boyle, J (2006) Presentation on REAP Mechanical Engineering project at Nottingham University Teaching and Learning day, September
- Draper, S and Nicol, D (2006), *Transformation in e-learning*, ALT-Conference, Edinburgh, September, <http://www.psy.gla.ac.uk/~steve/rap/docs/transf1.pdf>
- Nicol, D and Owen (2006), *C Self-regulation as a key to new assessment practices: can technology help?*. Annual Northumbria Assessment Conference, University of Northumbria, September
- Nicol, D (2006), *Assessment for learner self-regulation: enhancing the first year experience using learning technologies*, Presentation at Computer Assisted Assessment (CAA) Conference, Loughborough, 4-5<sup>th</sup> July  
[http://tltt.strath.ac.uk/REAP/public/Presentations/dnicol\\_caaconf\\_5jul06.pdf](http://tltt.strath.ac.uk/REAP/public/Presentations/dnicol_caaconf_5jul06.pdf)

- Owen, C. (2006), REAP presentation: Higher Education Academy/Centre for Recording Achievement e-Portfolios Conference, University of Strathclyde
- Nicol, D (2006), *Assessment and the first year experience* Integrative Assessment and First Year Experience Conference, Themes of Scottish Quality Assurance Agency, Edinburgh University, 30<sup>th</sup> May.
- Nicol, D, Draper S and Owen C (2006), *Two-way traffic: transforming assessment practices in tertiary education*, Presentation at the Learner Driver Conference (an RSC-sponsored event) at Heriot Watt University, 31<sup>st</sup> May  
[http://tltt.strath.ac.uk/REAP/public/Presentations/dnicoll\\_learnerdriver\\_31may06.pps](http://tltt.strath.ac.uk/REAP/public/Presentations/dnicoll_learnerdriver_31may06.pps)
- Owen, C (2006), *Partner management*, Presentation at SFC Transformation Projects Programme Meeting, Business Learning and Conference Centre, Fife, 11<sup>th</sup> May
- Nicol, D (2006), *Educative Assessment: Research and Practice*, Presentation, to staff taking postgraduate certificate in teaching and learning at the University of Durham, 19<sup>th</sup> April.
- Nicol, D (2006), *The seven principles of good feedback*, Learning Enhancement Network Event, University of Strathclyde, April 2006  
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- Nicol, D (2006), *E-Portfolios and Assessment: models, issues and practices*, JISC CETIS Assessment and Portfolios Special Interest Group Meeting, University of Wolverhampton, 24<sup>th</sup> January.

## 2005

### Conferences and Workshops

- Nicol, D (2005), *Re-engineering assessment practices in higher education*, JISC Programme Meeting, York, December 2005
- Nicol, D (2005), *Re-engineering assessment practices in higher education: processes and technologies* Departments of Psychology and Computer Science, University of Glasgow, June
- Nicol, D (2005), *E-portfolios: realising the potential*, Invited keynote address, Quality Enhancement event on employability, Glasgow Caledonian University, May
- Nicol, D (2005), *Re-thinking formative assessment and feedback*, Invited keynote address, Learning and Teaching Conference, Oxford Brookes University, January 2005

### Journal Articles and Papers:

- Nicol, D. (2007). Laying a foundation for lifelong learning: Case studies of e-assessment in large 1st-year classes. *British Journal of Educational Technology*, 38 (4), July 2007 668–678.  
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- Nicol, D. (2007). Principles of good assessment and feedback: Theory and practice. *From the REAP International Online Conference on Assessment Design for Learner Responsibility, 29th-31st May, 2007*. [http://tltt.strath.ac.uk/REAP/public/Papers/Principles\\_of\\_good\\_assessment\\_and\\_feedback.pdf](http://tltt.strath.ac.uk/REAP/public/Papers/Principles_of_good_assessment_and_feedback.pdf)
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- Draper, S.W. & Cutts, Q. (2006) Targeted remediation for a computer programming course using student facilitators *Practice and Evidence of the Scholarship of Teaching and Learning in Higher Education* Vol 1(2)  
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### Other publicity:

- REAP article: Times Higher Education Supplement: “Pick a number... any number”, 15<sup>th</sup> June 2007
- REAP article: Times Higher Education Supplement: “A test of flexibility”, 19<sup>th</sup> January 2007
- REAP case study: *Effective Practice with e-Assessment*, JISC 2007  
[http://www.jisc.ac.uk/media/documents/themes/elearning/effprac\\_eassess.pdf](http://www.jisc.ac.uk/media/documents/themes/elearning/effprac_eassess.pdf)
- REAP article: HEA Psychology Network Newsletter, January 2007  
[http://www.psychology.heacademy.ac.uk/docs/pdf/p20070104\\_issue40.pdf](http://www.psychology.heacademy.ac.uk/docs/pdf/p20070104_issue40.pdf)
- REAP articles: PRISM, University of Strathclyde; Glasgow Caledonian University newsletter

### Future dissemination plans to date:

- REAP workshops: Practice in e-Assessment Conference, Glasgow September 2007

- REAP presentation: SFC e-Learning Transformation Programme Event, Dunfermline, September 2007
- REAP paper: European Conference on Educational Research, Ghent, September 2007
- REAP paper: World Conference on e-Learning, Quebec City, October 2007
- Paper requested by *Assessment and Evaluation in Higher Education* journal
- Additional papers developed in collaboration with participating department teams

## Sustainability of assessment re-designs in departments that engaged in REAP class/module redesigns including future plans

The following information is derived from the departmental and institutional completion reports (see website, [www.reap.ac.uk](http://www.reap.ac.uk))

- **University of Strathclyde**

### **Department of Marketing**

- Commitment to continuation of re-engineered first year class
- Commitment to use of feedback forms and comment bank in second year class
- Adoption of online tests in other classes and electives
- Plans for new departmental strategy for assessment

### **Department of Tourism and Hospitality Management**

- Commitment to continuation of re-engineered first year class from new teaching team, including use of EVS
- HEA funding for evaluation of use of video podcasts and funding for additional podcast development
- Planned EVS adoption in additional second and third year classes

### **Department of Mechanical Engineering**

- Commitment to continuation of re-engineered first year class
- Departmental commitment to funding of online homework system
- Further classes using WebCT to deliver formative and summative assessment and departmental investigation into roll-out of online homework systems across all years in progress

### **School of Pharmacy (Level 1 pilot)**

- Commitment to continuation of re-engineered first year class
- Roll-out of online feedback form to first year biomedical classes and additional second year classes

### **School of Pharmacy (Level 3 pilot)**

- Commitment to continuation of re-engineered third year class
- Plans for introduction of 'just-in-time' teaching linked to online simulation tests
- Continued development of online simulation tool
- Planned roll-out of tool to School of Pharmacy at Robert Gordon University and potentially to other schools

### **Department of Education and Professional Studies**

- Commitment to continuation of re-engineered first year class
- Closer matching of online tasks to tutorials
- Planned introduction of peer-assessed tasks
- Planned reduction in seminars to improve course delivery efficiency
- Planned review of appropriateness of software to support task

### **Department of Childhood and Primary Studies**

- Commitment to continuation of re-engineered first year class
- Secured financial commitment from faculty to support licensing of e-portfolio software and provision of a server and IT support
- Commitment to staff development programme
- Extension of formative and summative assessment tasks supported by software across the degree programme

### **Department of Psychology**

- Commitment to continuation of re-engineered first year class
- Replacement of existing tutorials with online tasks, online individual feedback and GTA 'drop-in' feedback sessions

- Commitment to roll-out online task model to second year and subsequently third and honours year classes
- Commitment to future research into student experience of online tasks

#### **Department of Human Resource Management**

- Commitment to continuation of re-engineered first year class
- Study into correlation between blogging tool use, attendance, team dynamics and student attainment
- Roll-out of blogging tool to support team activities in additional classes and years

### **University of Glasgow:**

#### **Department of Biology**

- Commitment to continuation of re-engineered first year class
- Existing group task moved to start of first semester to capitalise on community development gains identified this year.
- Similar group activities to be rolled-out into other areas of first year biology class
- Peer marking activities extended to include all assessed group tasks
- Change to group task topic to more directly reflect taught course materials
- Financial commitment to development of Moodle VLE in departmental budget
- Potential for roll-out of similar activities in second year and honours courses

#### **Department of Computing Science**

- Commitment to continuation of re-engineered classes

### **Glasgow Caledonian University: Caledonian Business School**

Business School e-champions and module leaders will continue to refine their redesigns and explore opportunities for further embedding.

#### **Use of electronic voting systems in large lectures**

- Equipment installed into large lecture theatre and available to whole university
- Staff development incorporated into timetable of training opportunities
- C&IT and Estates committed to supporting and maintaining equipment.
- Staff members involved in REAP committed to championing EVS use

#### **Use of PebblePad e-portfolio software**

- Licence extended to 2008, then subject to review
- Staff members involved in REAP committed to championing e-portfolio use

#### **Use of electronic feedback software**

- Staff members involved in REAP committed to championing electronic feedback software
- Continuing relationship with originating university (Liverpool John Moores)

#### **Use of Blackboard to support online testing**

- Adopted by a number of additional modules
- Staff members involved in REAP committed to championing methods

