QUALITY ASSURANCE FOR ONLINE COURSES: FROM POLICY TO PROCESS TO IMPROVEMENT?

Carmel McNaught
Learning Technology Services
RMIT University, Australia
carmel.mcnaught@rmit.edu.au

Abstract

Over the past few years, RMIT has made a substantial investment into the use of online learning technology aimed at improving the quality of programs by reviewing their educational design and adding greater flexibility to modes of studying them. As part of this process, we have developed a university-wide quality assurance system for online courses related to aspects of educational design. All major online projects need to show evidence of sound and varied use of technology in order to achieve the educational outcomes desired. Peer reviews are carried out and a formal evaluation plan is written. The paper will describe the current policy and how it is being implemented at RMIT.

New Demands for Quality

Quality assurance is defined by Harman and Meek (2000, p. vi) as 'systematic management and assessment procedures … to ensure achievement of quality outputs or improved quality'. The Australian Quality Assurance Framework (online) is shown in Figure 1. Increasingly Australian universities will be asked to provide evidence for how they are maintaining academic standards and this evidence will be subject to audit. This will be the case for all delivered programs.

Many programs in Australian universities are delivered by a mixed mode with face-to-face teaching enhanced by independent modes of learning; many of these enhancements are now based on the use of web technologies. (Note that RMIT, like several other Australian universities, has adopted the nomenclature of programs and courses: program for the university's provision of an entire student educational experience leading to a formal qualification and course for the component subject, unit or module.) We have a growing reliance on robust technology which is simple for students to use and easy for academics to adopt and integrate in ways which can enrich students' learning. It is clear that we need to rethink ways of assessing and assuring the quality of the courseware produced using these technologies.
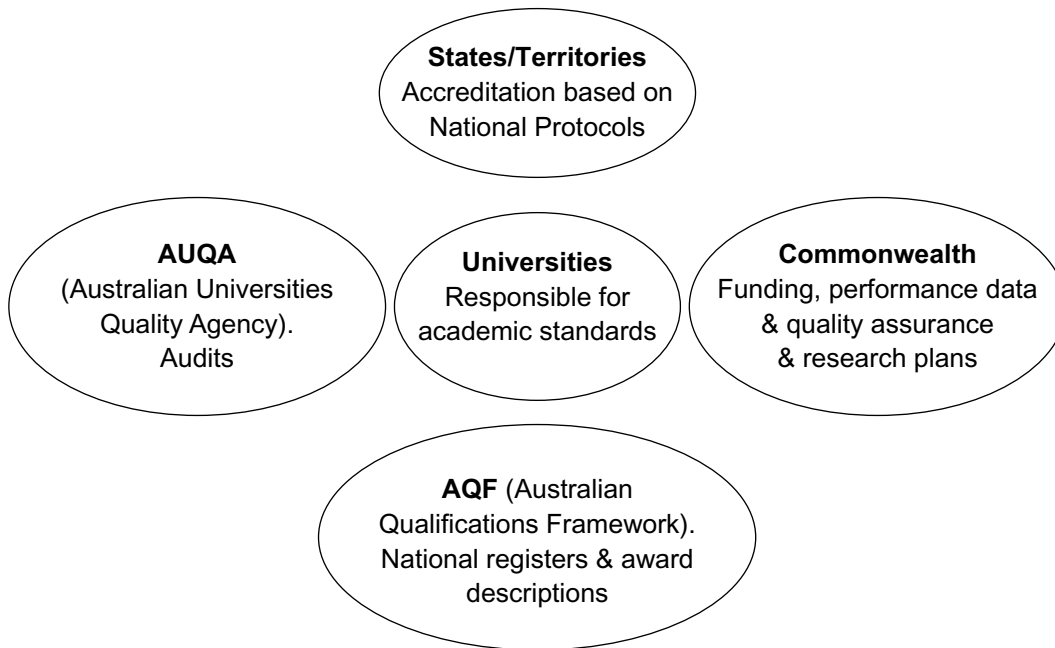
Figure 1: The Australian Quality Assurance Framework

Quality Online – What is it?

'How can a teaching/ learning process that deviates so markedly from what has been practiced for hundreds of years embody quality education.' This quote is from the pre-amble to the Institute of Higher Education (2000) report on benchmarks for success in Internet-based distance education; it encapsulates the huge changes that are rapidly taking place world-wide in teaching and learning practice. This case study of six US higher education institutions notes benchmarks that are seen as essential and benchmarks that are seen as *not* essential for ensuring quality online distance education. While the report focuses on distance education providers, we believe the findings are useful for institutions such as RMIT where most courses are taught by a mixed mode approach of both face-to-face and online modes. The benchmarks that are considered essential relate strongly to:

- clear planning;
- robust and reliable infrastructure;
- good support systems for staff and students, including training and written information;
- good channels of communication between staff and students;
- regular feedback to students on their learning;
- clear standards for courseware development; and
- ongoing evaluation processes with a strong student input.

None of these is surprising. It is the benchmarks that are considered *not* essential for ensuring quality online distance education that are more surprising to us 'old-school' teaching and learning advisers, such as:

- catering for students' diversity of learning styles;
- providing institutional rewards for effective teaching;
- having a strong team focus on course design;
- having collaborative and/or problem solving activities; and
- taking a modular approach to course design where student mastery of each module is expected.

To summarise, the essential benchmarks have a strong focus on systems and process. The non-essential benchmarks listed here relate to diversity and richness of educational design. While one can read too much into one study, there are messages here about not allowing our universities to become online qualification 'factories' in order to achieve certain specified university targets. The challenge is to meet those targets while still developing and maintaining rich and stimulating learning environments for students.

We do not believe that we have *either* a purely pedagogical approach *or* a purely financial perspective; we need both. For example, RMIT is really seeing the move to online teaching and learning as a financial investment, on which the University expects to get a return, mainly in terms of quality assured courseware to support strategic offshore teaching. Each faculty at RMIT has a list of its strategic programs and major efforts are going in this direction. A Return on Investment (RoI) will only occur if the courseware we use has high educational quality.

RMIT Context

Over the past few years, RMIT has made a substantial investment into the use of technology (for example, see Fallshaw, 2000). This initiative, called the Information Technology Alignment Program (ITAP) involves investment in infrastructure, enterprise computer-based systems, library resources, staff development, and program and course renewal (online). Through our Distributed Learning System (DLS) we offer staff a set of online tools to assist them in renewing their courses and subjects. An earlier report on RMIT's work (McNaught, Kenny, Kennedy & Lord, 1999) describes the toolset, early implementation experiences and early evaluations. We now have approximately 800 online courses in our system and several more on faculty servers that are yet to be migrated to central servers and incorporated into the DLS.

In order to develop staff capacity in using the DLS, a large scale professional development exercise has taken place. This has involved time release (26 days each), training and ongoing support for approximately 145 staff across the University, two or three in each department. In this time release period academic staff develop online materials and support their colleagues in their departments to engage with online teaching and learning (McNaught & Kennedy, 2000; McNaught, in press).

At RMIT, the vast majority of our courses are not fully online and involve mixed mode designs. These include traditional classroom face-to-face teaching, work-place learning arrangements (a central feature of many RMIT programs) and partnerships with other educational providers (especially offshore).

RMIT Policy: Quality in Educational Design and Production

We have developed a university-wide quality assurance system for online courses related to aspects of educational design. All online courses (no matter how minor the online component) need to be signed-off at faculty level by each faculty's Director of Teaching Quality (DoTQ). For this sign-off to occur, there needs to be *evidence of clear educational design and planning*. This online approval process basically asks staff to show evidence of some educational planning before their subjects become 'live' on the DLS. The DoTQs check that staff have considered the design features of an online system, have thought about the overall rationale for the course in question, and comply with basic publishing standards (including copyright matters). The coherence between the Course Guide and the online presence is a key criterion here. This is a minimal educational requirement and simply requires an assessment of that coherence. We use the Course Guide (this includes the usual information relating to course details, learning outcomes, planned student learning experiences, assessment and study program and an Online Checklist to do this (online). A short version of the Online Checklist is shown in Table 1.

Section A: Educational planning and design of online environments	
Topic	**Some examples to consider**
Learner-learner/ learner-teacher interaction	Online tutorial sessions. Feedback on practical work. Continuous evaluation form. Team assignments workspace. Moderated discussion forums.
Learner self-assessment/ feedback on learning progress	A current collection of assessment materials and supporting documentation. Samples of previous assignments/project work (with documented student permission). A collection of past/recent exams and sample tests (where appropriate). Self-help quizzes (for formative assessment purposes). Provision for electronic submission of assignment work. Publishing work for peer review.
Study program management/ study skills support	Direct access to the related approved Course Guide. A current timetable/timeline related to outlining face-to-face tutorials, lectures, lab/field work and online activities (with times, dates and location details). Online learning activities clearly described/linked to curriculum outcomes. Current contact details of lecturers, teachers and tutors. A structured collection of Frequently Asked Questions and/or Glossary. Lecture outlines Laboratory notes. News announcements.
Resource-based/problem-based learning environments	A structured collection of learning resources. Clear links to related Library resources and databases. A structured and validated collection of annotated WWW links. Multimedia simulations.
Section B: Online learning resource publishing standards	
To be completed if the DLS course contains a structured collection of online learning resources. Are the guidelines for the following areas addressed? • RMIT intellectual property and copyright (online) • RMIT 'identifiability' • Web site and interface design • Accessibility	

Table 1: Topics in the quality assurance checklist for online courses

At RMIT, each faculty has a list of strategically important programs. There is significant investment in developing or renewing the courses in these programs and online learning is a feature of this process. These 'strategic' courses need to demonstrate additional quality processes. These are:

• *evidence of peer review*. The Boyer (1990) Scholarship model has been used for some time as an integrating model for all RMIT work. The process of being open to feedback and scrutiny is essential in any scholarly activity and our key strategic teaching is in that category. A report of the decision made at peer review sessions is required.

• *evidence of forward thinking through an evaluation plan*. The evaluation plan is a requirement to indicate how important ongoing quality improvement is. While collecting evidence about the success of one's teaching and how much students are learning ought to be a natural

process, in reality evaluation is rarely rigorously carried out (Alexander, 1999). This part of the policy requests a brief document outlining what evaluation strategies are to be used once the course is being taught to students.

Developing Processes to enact the Policy

Evidence of Educational Design

As stated above, this evidence is needed for all online courses. There are two mechanisms that are used to support this quality criterion. The first is the production of exemplars. Here the growing number of developed 'strategic' courses is being used to provide examples to use with staff. As strategic courses have professional educational design and production input, the documentation of Course Guides is often more complete. One area where we are trying to improve the quality of the Course Guides is in the realm of graduate capabilities or attributes. How does one course relate to other courses? How does the design of each course contribute to the desired graduate capabilities? (online). The progressive building up of quality Course Guides and matching examples of online courses is a priority need. These are being added to a secure area on the Distributed Learning System (DLS), but more work is needed here.

The second mechanism we use, which is linked to the first, is the process of reviewing all DLS courses. We did this first in June 2000 when a review of 530 online courses in our DLS was carried out. This was prior to the new policy for quality assurance of online courses. There were seven Review Teams—one for each faculty consisting of faculty staff and staff from Learning Technology Services. Initially there was a great deal of suspicion about this 'police' activity, but, by having collaborative effort with staff in the Faculties, the exercise was seen as much as evaluative feedback as being quality control. However, the tensions between the two can be a fine line! We did not look at all online learning environments at RMIT; the Review Teams did not look at subjects still undergoing development, at subjects 'switched off' because they were not currently operating, or at online materials that still reside on faculty and departmental servers.

We used a checklist similar to that in Table 1 to do the review. Only about half the subjects were felt to be adequate and feedback was given to all course owners about where improvement could occur. The sorts of issues we provided feedback on were:
* lack of clarity in linking resources and activities to learning outcomes;
* lack of flexibility in catering for diverse groups of students;
* lack of linking to strategic priorities, e.g. internationalisation, work-integrated learning;
* no links to activities, just the provision of resources;
* extraneous buttons; and
* unclear navigation strategies.

We are currently reviewing about 800 courses in 2001. These courses should have had at least the basic quality assurance sign-off, though it is unrealistic to expect that this will have occurred rigorously at this stage. This review is again operating with collaborative teams at faculty level. Wherever possible, program leaders are being involved, so that the discussion about how well the linkages between courses operate can occur. This year more detailed information about the online design features being used has been collected. Faculties are now refining their own local quality processes. The detection of exemplars is obviously one outcome of the review process.

Carrying out Peer Reviews

We provide a range of optional proformas for this process. We have found these peer review sessions to be extremely valuable staff development exercises. Basically, staff gather in a computer lab, spend time going through partially or nearly developed online strategic courses, make comments and then have an open discussion. Most peer reviews are held over 1-2 hours. Below is a set of criteria that have been used in some peer review sessions.

- Students undertaking the learning activities (including assessment) are likely to achieve the course's learning outcomes.
- The course's learning outcomes incorporate relevant graduate capabilities. This means they are explicitly incorporated in learning activities and assessed (e.g. subject of reflection among students with feedback).
- The skills, knowledge and experiences of the students commencing the course have been considered when developing the learning activities, assessments and resources.
- The course meets the needs, wants and circumstances of the diversity of the anticipated students (including student access and equity issues in relation to computers).
- The course, including the online components, is sensitive to the local language and culture of the students (including English language proficiency).
- The course will actively encourage and support student interest, interaction and engagement.
- The assessment activities (including criteria) will clearly gauge the student capability or competency related to the desired learning outcomes.
- The course ensures students are aware of the expected nature and standards of assessable work.
- The course provides opportunities for timely and constructive feedback on learning to students throughout the course.
- At all times students know what activities and tasks to undertake.
- At all times students know what standards are expected and how to get learning support.
- Students can readily locate and access all resources when needed as well as readily submit material to peers or teaching team.
- The student is aware of the type of assistance available at any stage during learning and can quickly resolve common issues.
- Students are readily able to provide feedback to the teaching team throughout the course.
- The teaching and learning activities need to be selected and developed to maintain or enhance the expected benefits versus costs, including the ongoing costs of teaching and assessing in the course.
- All online materials conform to the RMIT Online Publishing Standards.

Developing Formal Evaluation Plans

Each department and group at RMIT produces an annual student feedback plan (online) but, as in most universities, the evaluation is focused mostly on measures of student satisfaction and there is little learning-centred evaluation done. We are trying to build up scholarly approaches to evaluation. RMIT is involved in the ASCILITE CUTSD evaluation project (online) and the evaluation framework outlined in Bain (1999) is influencing the proformas we prepare for staff. However, the work required must be feasible within already stretched academic workloads. Some strategies we suggest are listed below.

- Survey of all students about access to computers, basic computer skills and experience learning online.
- Ongoing discussion boards to allow students an opportunity to air any view. These need to be reviewed regularly by the Course Coordinator. Regular Course Team meetings to get an overview of issues arising.
- Regular survey about students' perceptions of online learning activities, access to and use of online resources and relationship to other parts of the courses.
- Focus groups, e.g. about structure of online courses (ease of use, functionality), online communication issues.
- Detailed discussion of assessment results to provide evidence of areas of the courses that students can master and areas that they find challenging.
- Program team meeting reviewing issues across first semester courses.
- Compilation of final report indicating recommended changes for next iteration.

Is RMIT Achieving Quality Outcomes in its Online Courses?

Anderson, Johnson and Milligan (2000, p. 60) warn against 'focusing too much on processes and not enough on academic standards and outcomes' in quality assurance plans. Are we really making headway? Is our online quality assurance policy resulting in better quality online learning environments? We are cautiously optimistic and, overall, we are satisfied with the processes we have designed. Here are some of the indicators that give us optimism.

- The DLS Review in 2001 is much more rigorous than that in 2000. It has been taken more seriously.
- The need to consider quality assurance issues for courses in relation to program level design and management is now more widely accepted.
- We have a much clearer idea of how to document and report on design issues to all stakeholders.
- There is little intellectual resistance to the need for an evidence of planning process (including copyright and intellectual property sign-off). The response of staff at workshops and discussions has been largely positive.
- The response and engagement of staff at peer review sessions has been positive.
- Twenty-five course teams will have gone through the full quality assurance process of evidence of educational design, peer review and evaluation planning by mid-2001. Another fifty should go through the process later in 2001.

However, we are unclear about how effective the evaluation plans are at this stage. The issue with the evaluation plans is that they may look scholarly and staff may have quite strong intentions to enact them. But once teaching is in place, it is hard to find time for serious evaluation. It is another process to add to the workload of staff … and therefore another challenge to embed.

One of the keys to the success of quality assurance systems is to have effective and efficient management of the process. This means that we need to be flexible and adaptive in improving the process. For example, we are developing online document repositories and online peer review processes. We have done this for our Global University Alliance (online) strategic courses and hope to use this as a model for other strategic courses.

Thus, improving our online quality links to improvement of our quality processes in a continuous loop.

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