

Assessing online laboratories: a peer review of teaching & learning

Theresa Dirndorfer Anderson

Creative Practices, Faculty of Arts and Social Sciences, University of Technology, Sydney,
Theresa.Anderson@uts.edu.au

Nicola Parker

Institute for Interactive Media and Learning, University of Technology, Sydney, Nicola.Parker@uts.edu.au

Jo McKenzie

Institute for Interactive Media and Learning, University of Technology, Sydney, Jo.McKenzie@uts.edu.au

This paper presents action research informed by Peer Reviews of innovative assessment in a 'fully blended' undergraduate Communications subject. The assessments, the teachers' intentions for student learning and the process and outcomes of two rounds of review will be discussed. Assessment is the crux of a subject for students and teachers, and the paper will show how 'conversations about teaching' as part of a Peer Review process can enhance assessment. The assessment that was the focus of the review involves *collaboratories* in which students use wikis to build on collaborative knowledge production about emerging technologies. Peer Reviews focused on the strategies used to encourage greater student-directed and managed participation in the construction of the wikis and associated student-moderated online discussions. The first round identified ways that the assessment criteria could be more specific and distinct in relation to the subject's themes and practices. The second round specifically focused on the assignments that flowed from the collaboratories. One motivation for this teacher to engage in the project was the need to make the assessment more sustainable. This issue was confirmed, and ways of improving the sustainability of the assessment process were explored as part of the second round of review. The Peer Reviews are part of an Australian Learning and Teaching Council project across the five ATN universities. The paper discusses the Peer Review process and ways in which its outcomes are being applied to shape meaningful assessment, and engage students more explicitly in self- and peer-assessment of their collaboration and online activity. It also demonstrates the importance of conversations with colleagues about assessment, particularly in blended learning environments and invites discussions about the assessment of learning within the structured space of a Peer Review.

Keywords: blended learning; online assessment; peer review of teaching; wiki's.

Introduction

This paper examines innovative assessment through the lens of Peer Review (PR) using a case study of a 'blended' subject at an Australian university. The case study highlights the value of PR of teaching for developing assessment in blended learning environments (BLE). Assessment is a fulcrum for student engagement and dominates their experiences of learning as well as consuming a large proportion of teaching time. It is therefore a key element in the improvement of learning and teaching practices.

This case study shows how assessment quality can be improved in a BLE by providing a framework for the process of formative and summative feedback for teachers. It provides an example of how articulating what is unique about teaching and assessment in a BLE through PR can improve the work of even innovative teachers. The specific context for the case study is a subject where both the students' collaborative knowledge production activities and two of the three assignments involve extensive online work. The paper firstly looks at the background of PR and assessment, and then briefly outlines the ALTC project that this case study was a small part of. The case study subject is introduced, the process of the PR of assessment from the reviewees and then reviewers' perspective are described, followed by discussion of some implications and conclusions.

Peer review of teaching and assessment: background

Peer Review is a process of making scholarly judgements about the quality of learning and teaching, and of focusing on scholarly professional learning. Many teachers are seeking more formative feedback to improve their practices and developing PR evidence to improve individual teaching practice in a scholarly way and PR is a useful complement to information that can be provided by students (Alexander & Golja, 2007). Because PR can inform our teaching as well as provide evidence about our teaching to others, it can ultimately be used for both formative and summative purposes.

Peer observation (Bell, 2005) has been widely used for face-to-face teaching and there have been many resources developed for this and for review of teaching, or course, portfolios (Bernstein, Burnett, Goodburn, & Savory, 2006). In the online environment, PR has been used for learning objects see (Taylor & Richardson, 2001) and online courses and course materials, (eg Wood & George, 2003). Less has been developed for online and BLEs, where PR of teaching presents particular opportunities and challenges (Bennett & Santy, 2009; Wood & Friedel, 2009).

Many subjects in Australian universities are now delivered in 'blended mode' (Swinglehurst, Russell, & Greenhalgh, 2007). Bennett & Barp (2008) have argued the need for online PR, which they also call 'peer observation'. They have noted the 'dearth' of literature in this area and outlined the challenges this presents:

“much remains to be explored, researched and documented as to how, and how far, 'online-ness' impacts on the peer observation process, the experience and the benefits for participants. The evidence is that distinct strategies, processes and models are probably needed to provide guidance for transferring peer observation online” (p. 564).

In contrast to peer observation in a face-to-face environment Swinglehurst et al. (2007) point out two aspects of online learning and teaching of interest for PR: the record and nature of the interactions taking place. Bennett & Barp (2008) note that teachers and students are repositioned online, in terms of both time and place, and this can be a challenge for reviewers:

“Even with clear guidance on where to look and what to focus on, online-ness affects what you can 'see', how easily you can understand what is going on, and potentially presents 'more' for you to observe” (p.567).

They found disagreement about whether the online learning environment meant that more was captured and observable online, or less, but point out that the scope of the review is changed considerably. This can increase the reviewer's expectations about what they should consider, so that the review becomes overwhelming (Bennett & Barp, 2008).

Assessment is well recognised as the driving force in most students' learning, and for many defines their entire learning experience (Biggs, 2003; Ramsden, 2003). In fact, for most students the assessment **is** the subject “Assessment defines what students regard as important, how they spend their time, and how they come to see themselves as students and then as graduates” (Brown & Knight, 1994, p. 12). Although Polifroni (2008) includes the “quality of assessment measures used along with the “achievement of defined learning outcomes” (p. 96) and Kell & Annetts (2009) refer in passing to “formative feedback on assignments” (p. 68), assessment has been surprisingly absent from the PR literature, perhaps reflecting an emphasis on the face-to-face aspect of reviews. As Bennett & Barp (2008) have noted “both the implementation and exploration of online peer observation are still in their infancy and a wide range of aspects remain to be investigated” (p. 568), including the key aspect of assessment in learning and teaching. This case study is an example of how useful PR of assessment can be. The next section briefly outlines the project that provides the context for the case study reported here.

Embedding peer review in blended learning environments: an ATN teams project

The PR process that is described here has been developed as part of a collaborative Australian Learning and Teaching Council project across the five Australian Technology Network universities (McKenzie et al., 2008). The project is a two-year initiative which has aimed to:

1. Create, trial & evaluate processes and resources to support scholarly PR of teaching and learning in blended learning environments
2. Enable the use of PR for both formative feedback and improvement and for recognition and reward.

The project has used a co-productive, action-research approach (Kember, 2000) involving teams of six academics at each partner university in the development and trialling of PR frameworks, protocols and resources. Institutional team members were sought across a range of disciplines and blended learning contexts, including entirely online, as well as mostly face-to-face with some online support. The action-research cycles have involved team members engaging in reciprocal PR of aspects of teaching in BLEs, to develop, trial and refine a common framework and protocols.

The project's framework and the structure of the PR process presented here was built by integrating information from:

- The qualities of scholarly work (Glassick, Huber & Maeroff, 1997)
- Promotions criteria and related teaching descriptions in the five partner universities
- The literature on good teaching (Biggs & Tang, 2007; Ramsden, 2003), and was also informed by
- Learning in electronic or BLE (Boud, 2002; Laurillard, 2002)
- The PR and peer observation literatures (e.g., Bernstein et al., 2006; Van Note Chism & Chism, 2007; Bell, 2005), and
- More recently in BLE (Bennett & Barp, 2008; Bennett & Santy, 2009; Swinglehurst et al., 2007).

These starting points were combined with the iterative feedback from the PR teams to modify the framework and protocols. The Framework Categories for reviewing learning and teaching that were developed in this process are:

1. **Clear Goals:** for students' learning and the design of the learning environment
2. **Current & Relevant Preparation:** includes consideration of content, processes and student needs that are informed by scholarship
3. **Appropriate Methods and Implementation:** thoughtfully chosen, applied effectively and modified in response to students' feedback
4. **Effective Communication:** with students, teaching team and other colleagues
5. **Important Outcomes:** student learning and engagement, other intended and unintended outcomes, possible scholarly presentations or publication
6. **Reflective Critique:** including use of feedback and reflection for improvement (modified from Glassick et al., 1997).

As initial resources were refined, further action research cycles have been used to develop guidelines, briefings and resources for staff involved in recognition and reward processes, including academic promotion (see also, Wood & Friedel, 2009). Developing a process that accommodates diversity by using core qualities of good teaching that apply across all contexts has been important and, as far as practicable, we have sought to include the preparation, processes and outcomes of teaching and learning (see Biggs, 2003 3P model) in the reviews.

Peer review of assessment in a blended approach to teaching: a case study

This section introduces the case study of assessment that is the focus of the paper. The subject (*Social Informatics*) is part of the core in an undergraduate degree in information and media within a B.A. Communications program. It is also an elective for students in other parts of the university and is a moderate sized subject with a mixed cohort of undergraduate and postgraduate students. The aim of this subject is to introduce students to the principles of knowledge construction in various socio-technical contexts. Emerging technologies are both the subject matter and the teaching tools. A hybrid learning environment (i.e. a combination of online and face to face activities) provides individual and collaborative opportunities for experiencing and analysing the interplay between people and technology. Students use alternative ways of

working with technologies to engage in interactive, constructive learning and collaborative activities, integrating creative and analytical skills with academic and personal experiences.

There have been two layers of PR completed and documented to date in this case study subject. The first has focused on the strategies and assessment criteria used to encourage greater student directed and managed participation in the online wikis that were part of an assignment. The second round of review of the same subject, by the same reviewer specifically focused on the marking of the individual assignments that flowed from the online group work and class discussions.

All three assessments in the subject are designed to interlink, with two of them being specifically connected, and both involving critical examination of the socio-technical challenges associated with six different emerging technologies (for this cohort technologies included humanoid robots, intelligent agents, immersive environments, wearable computing, mobisodes, and mashups). Both assignments examine the evolution of these technologies, the complexities associated with their adoption by various sectors of society and the interplay between people and a technology within various social contexts. One is group based, the other an individual essay. The group assignment ran for 10 weeks and involved working as part of a *collaboratory* to construct a wiki about one of six emerging technologies. Each team was also responsible for leading a two-week class-wide discussion in an online forum and the PR in round one focused on these discussion activities. Teams were given flexibility to craft their wiki according to their collective talents, though basic guidelines and scaffolding provided a starting point. Successful wiki development called for skill sharing and utilisation of the special talents (both technical and inter-personal) of individual members of each collaboratory. The content of each wiki and discussion forum became the starting point for the final individual assignment: a critical evaluation of one of the six emerging technologies. Accompanying their wiki, each student submitted a reflective report about their individual experience with collaboration and lessons learned about the conditions for effective collaboration and communication in both environments. This was the focus of the second round of the PR.

The review of this subject

The PRs were conducted according to the four-step process developed in the project (see above). The importance of each step in the process has been emphasised by the teacher in this case study and participants in the larger project. The teacher of this subject wanted to engage in PR to continue improving online and face-to-face experiences and to empower her students. She also wanted to make the subject sustainable by deflecting students' dependency on her as the teacher. The type of PR outlined here provided a process and methodology for the teacher to develop external documentation and validation about the value of the teaching and learning in a subject that had been the focus of her learning and teaching action research for five years. The reviewer was a disciplinary colleague, with a research background in student learning who had been part of the teaching team in prior iterations of the subject.

The review in this case involved 'visiting' the online Learning Management System site for the subject, and evaluating the group work wiki content and discussion, as well as looking at a range of written assignments and grades linked to these tasks. The subject documentation, lecture materials and tutorial handouts for students were also reviewed. The steps in this PR process are described below using the case study. The examples provided below are from the second round of PR, but this was both inspired and informed by the first round.

1. Pre-review briefing

Establishing this important foundation for the review was done at a face-to-face meeting of an hour based on the Briefing Template. This provided a structure for:

- Discussion of the reviewee's desired goals, aspects of teaching to be reviewed and areas of focus for the review
- Developing the reviewer's understanding of the context

The teacher in this case study stated that her goals were:

I am interested in learning how well the design of the second assignment is suited to my stated goals for the assignments – and the subject overall...how effective the current

assessment criteria for the 2nd assignment (especially those related to participation and group activity) are for assessing and rewarding “useful” presence in the activities being assessed...to effectively communicate to students what is being valued in the assignments...

The teacher went on to note when outlining the focus for the review that:

...one of the concerns I have is privileging the quantifiable evidence available for assessing online activity over qualitative elements which are often more challenging to examine for ‘evidence’ when assessing an assignment against the established criteria.

An additional short meeting took place once the reviewer had initially looked at what was going to be reviewed (Discussion Board, wikis and a sample range of graded assignments) in light of the Briefing. Because completing the Template and considering the Framework Criteria requires the teacher to analyse in some detail what they actually want to find out as a result of the review, this has been found to be an invaluable part of this PR process.

2. The ‘review’

The review was carried out using the framework criteria (see above) The comments in this case were extensive and were discussed and added to in an iterative process of the reviewer asking questions of the reviewee and then completing further aspects of the framework. This took place over the course of a few weeks. One example of comments by the reviewer for the ‘**Clear Goals**’ criteria illustrates how positive aspects and critical elements are intertwined in the reviewer’s comments:

...There is an impressive cohesion of the goals for student learning, rationale for a blended learning environment and the way that the ‘collaboratories’, Assignment 2 and the tutorial activities have been designed...

This is contrasted with:

...I’m not sure about how clear the students would be about the goals (in their full depth) or if they actually need to be? Perhaps knowing what the objectives and assessment criteria are for assignment two is enough?...

3. Debriefing

The debriefing meeting is an important formative opportunity which:

- Enables the reviewee to reflect
- Provides a space for the reviewer to offer supportive and constructive feedback
- Allows the reviewer and reviewee to discuss suggestions collaboratively.

In this case study there was a face-to-face Debriefing Meeting of an hour and this was a valuable opportunity to discuss what the reviewer had discovered and for the teacher to further clarify aspects under review. The optional documenting of the debriefing ‘conversation’ allowed the reviewer to fill in questions she had had during the review. Further ‘conversations’ between the reviewer and reviewee followed as required, via email or phone to clarify additional points prior to reporting.

4. Reporting

The reporting options that have been developed in the project include a Full Report (Briefing Template; Teachers response to Framework Criteria; Reviewer full responses for Framework Criteria) and a two page Summary Report. In this case study the Summary Report (based on the two full reviews) illustrates how even an extensive review process can be condensed into a short written summary. It could be presented as summative evidence for future applications for performance reviews, promotion, teaching awards etc. This teacher has already used her Summary Report for performance development meetings with her academic supervisor and intends to use it for an application for a teaching award. In Figure 1 an example of part of a Summary Report shows some of the summarised comments for three of the criteria.

Criteria for Good Teaching	Peer Reviewer's Comments
<p>1. Clear Goals: For students' learning and for the design of the learning environment</p>	<p>Clear intentions and extremely thoughtful design of the face-to-face and online learning environments creates innovative and exemplary learning activities for students. However, this is not always reflected in the documentation and written messages the students are getting about what path to follow and what to prioritise? (NB Changes to faculty procedures for subject documentation...being addressed for 2009).</p>
<p>3. Appropriate Methods and Implementation: Thoughtfully chosen, considering the students, subject, context and available resources; also applied effectively, modified in response to students' ideas and understandings, to feedback and to changing situations</p>	<p>Methods employed have been honed over several years of reflective teaching practice, modified in response to students' ideas and are of international interest...Some of the blended nature of the subject has evolved from teaching while travelling to international conferences into a mode of teaching that is a successful and 'fully blended' experience for students. It is the way the collaboratories specifically target students' creativity that makes them a highly successful and innovative teaching and learning process for students.</p>
<p>5. Important Outcomes: Strongly focused on student learning, and then achievement of additional intentions. Further outcomes may include Scholarly communication of teaching.</p>	<p>Powerful student learning occurs in this subject through student engagement in the teamwork of their collaboratories and the content. This is evident through the complex and rich learning environments the students create for their peers and the discussions they facilitate and engage with about emerging technologies, resulting in a creative learning resource for the whole group including the teacher! These resources become a platform for the whole class's final essay assignments.</p>

Figure 1. Summary review extract of assessment in a blended learning environment:

An interesting outcome of this particular review is that the innovative nature of the teaching of this subject, which has had to be defended by this teacher at times, is able to be highlighted in a detailed way that links teaching to scholarly processes through PR. For example the reviewer commented that:

The broader disciplinary and professional context is not singular or unified and some of the subject matter and teaching methods might be 'beyond' the mainstream profession/discipline – this is a compliment not a criticism!

The result was that the teacher engaged in a reflective and evaluative process which has been documented. This documentation (which details precisely what she is doing really well and how) has empowered her in lots of different situations. She can choose to use the evidence gathered in the process of reviewing her teaching not only for the enhancement of teaching, but also to support recognition and reward for this. It is also an example of using the same review for both formative and summative purposes: that is combining the initially formative purpose and process, with ultimately summative objectives. Experience in this case suggests that this is possible by undertaking an iterative, formative review process of an aspect of teaching in a subject and as a result evidence can be gathered for a future application for promotion or award. This case study is also an example of a quite extensive review that involved several iterations of communication over a couple of weeks between reviewer and reviewee to achieve both of these ends. Within the project there have been examples of reviewers and reviewee choosing to use parts of PR process presented here, or complete purely formative reviews for example, and these have been completed in half a day.

How the peer review has informed the development of the assessment: discussion

Some of the observations that have emerged from this teachers experience of being a reviewee include an appreciation of the PR framework as a useful visualisation tool for review and reflection, and of the value of conversation with self and colleague (critical friend) provided in the 'structured place' of the PR. In this case study this has enabled the teacher to articulate what is most valuable in her subject, and what needs further refinement. The review has also provided a valuable way to triangulate results of Student Feedback Surveys about assessment and has offered a more "multi-dimensional evaluation of teaching" (Schultz & Latif, 2006, p. 4).

The next steps the teacher plans to take as a result of the two completed rounds of PR reported here are to further refine the subject for future semesters by:

1. Aligning the improvements made to the weekly delivery of the program and to the assignments with the documentation associated with the subject
2. Preparing a request for Courses Committee to amend the description and criteria for Assignment 2 to reflect outcomes from this review (with a view to making the delivery of the subject more sustainable for the new tutorial leader)
3. Conducting a third round of cross-disciplinary review with further reflection, discussion and the possible creation of a new Action Plan based on those findings.

From the perspective of the reviewer there was also great value in this PR process (Schultz & Latif, 2006). This confirms Bennett & Barps' (2008) findings that their online 'observers' felt they learnt more in this role. However, reviewing this 'fully blended' subject was challenging as this reflection indicates:

It was hard to know what to pay attention to - given that there was not enough scope to pay lots of attention to everything! Should I focus on the documentation or the online environments equally? I also had a dilemma about what to print out, because I have difficulty thinking things through in depth and in a sustained way when they are onscreen.

This experience of PR has highlighted the difficulty of keeping a balance between consideration of the subject as whole with the aspect under review (whole versus parts), especially in a BLE. Using a framework to structure the review was important to support and guide consideration of the aspects of learning and teaching that may be 'hidden'. In nonetheless resulted in feeling obliged to complete all framework prompts, or alternatively trying to decide which parts of framework to choose? This issue could be related to a lack of prior experience of reviewing, because although this reviewer had a learning and teaching research background she was not an academic developer.

One of the motivations for the PR of this case study subject was concern about the sustainability of the assessments from the point of view of the teacher. Related to this was a concern with succession planning in this subject. A suggestion emerged in conversation about the outcomes of the Review that may help make the assessment more sustainable **and** help students to communicate their achievement against the criteria, would be to engage the students in the assessment of their collaboration and online activity. For example, the assignment could be revised to ask students to use their written reports as ways to showcase their own learning. Students' use of extracts from their collaboratory postings and teamwork tasks as "quotes" in response to the criteria is being trialled this semester, with the new tutorial leader.

Some other issues that arise from this review that are worth mentioning include the:

Pros and Cons of a close disciplinary colleague as reviewer. This enables a deep appreciation of context, but at the same time makes it challenging to articulate 'evidence'. However, this underlined the value of having a 'critical friend' (Melrose, as cited in Lomas & Nicholls, 2005).

Value of a **process of review** which encourages discussion, rich reflection and useful documentation
Ability of each step of the PR to reveal deeper layers for analysis and evaluation, and the continuation of this process.

In summary, this type of PR of teaching focuses on how and what students are learning in blended learning environments. It evaluates the connections between this evidence of learning and the teachers' intentions and practices, by using a set of criteria as a scholarly framework. Teachers may choose to engage in a review process that is formative and at the same time has a summative final goal. The review process may also be ongoing, continuing beyond the trajectory described here.

Implications

Assessment of learning is not only the crux of a subject for students but also where teachers spend a lot of their time (Boud, 1995). The value of 'conversations' with colleagues about assessment, particularly in BLE, can be enhanced through the use of a structured PR process. In effect, a PR serves as a guided inquiry that combines the benefits of a collegial conversation about some aspect of one's teaching with a template that can guide future action. For example, the importance of the assessment criteria for learning and teaching are

widely recognised. In this case study the teacher had done extensive prior work to develop the assignment criteria but it was as a result of PR by a disciplinary colleague that she was able to map out a clear way forward.

In the project a structure has been developed to focus on the 'process' and 'product' phases of learning, that is, how teachers and students engage with each other and the subject matter in blended learning environments in different disciplines and contexts - and what students learn as a result. Looking at assessment within the context of this review process provides a significant focus, but nonetheless requires an examination of the context as well as the content of the course as a whole. There is a need to develop a fairly comprehensive appreciation of the review context for the review outcomes to be really valuable (for example, how the aspect that is reviewed fits into the subject). In order to discern the relationship between the 'parts' and 'whole' of the subject more than one 'visit' is required, and this is particularly relevant in BLE.

There is an added challenge associated with BLE, where the very nature of this type of environment further complicates any PR of assessment. Teaching and learning activities are distributed across both online and offline 'sites' of classroom and learning activity:

“the 'archived' nature of online learning opens up possibilities for online tutors to work together in ways (relating to time and place) that have not been possible in the past. This flexibility presents new challenges.” (Bennett & Santy, 2009, p. 404).

Consequently, as the PR of this case study subject has shown, the traces of aspects impacting assessment are not always immediately discernible, and in the face-to-face components not as easy to 'catch' as they are online. For example, the reviewer commented:

...the participation of the whole class in discussion [this] is numerically easy to see as being quite impressive. To evaluate student learning specifically against the Assignment OR Subject criteria is tricky... for a reviewer to get an idea of each collaboratory member, (therefore fulfilment of roles); issues that should be discussed as part of the topic; capture discussion about collaboration; etc seems over whelming even though I have tutored this subject before.

Baker, Redfield & Tonkin (2006) point to the possibility of reviewing a prior course in an online environment and of repeated reviews of the same course (Cobb, Billings, Mays, & Canty-Mitchell, 2001) highlight the possibility of ongoing engagement: “unlike the peer review of a classroom visit which tends to represent a “moment” in the course, the review of Web-courses can reveal teaching and learning over a longer period of time.” (p. 277). While our experience confirmed this benefit, it also underlines the need for the boundaries of a review in BLE to be to be very clearly defined so as not to become unmanageable.

The case study (and broader project) have also found that PRs were most successful between 'real peers'. 'Peer observation' has been used in the literature to describe visits by those who are anything but peers, for example, more senior academic managers, quality auditing teams or academic developers (Hammersley-Fletcher & Orsmond, 2004; McMahon, Barrett & O'Neill, 2007). Here, it was agreed that peers should preferably be “an equal with respect to teaching and learning activity...[and] functions of teaching they performed” (Kell & Annetts, 2009, p. 67), although they may well differ in terms of administrative seniority (as they did in the case study). McMahon et al. (2007) also make the point that the reviewee needs to be able to control the whole process – from whether they participate or not to what is done as a result of the review, and this was strongly emphasised in this case study.

This case study highlights some important considerations for PR of assessment. The provision of a thoughtfully developed framework for the review process is important in order to support a broader perspective that goes beyond observation of teaching 'performance'. The importance of clarifying this PR process for the reviewers and reviewees was highlighted. Evaluating assessment by using a PR process suggests there are benefits for curriculum and assessment development more generally.

Conclusion

This paper has explored innovative assessment within the context of the discipline of *Social Informatics* using the lens of PR of teaching. The experience of the teacher and reviewer in this case study, and of the teams in the larger study, has been that the benefits of the PR process were reciprocal; providing “mutual support in the often isolated process of teaching online” (Bennett & Santy, 2009, p. 404). This collaboration is invaluable not just for novice online teachers but equally for early-adopting or pioneering teachers, offering an opportunity to “establish connections through which to gain a window into the practice of fellow innovators” (Bennett & Santy, 2009, p. 405).

As well as contributing to the teachers’ professional development, a PR process such as described here leads to continuing conversations about the scholarship of teaching and ultimately to course improvement and quality (Cobb et al., 2001). In this case study for example there has been the unexpected use of PR as a form of ‘succession planning’ for subject sustainability, and ultimately the portability of ‘what makes it great’. Finally, the value of PR for ‘empowerment’ of the teaching that has been experienced by the teacher in this case study and others echoes Swinglehurst et al’s (2007) recommendation that we need to ensure “sanctioned protected time” (p. 391) for academics in all disciplines to reflect upon what counts as ‘good teaching and assessment’.

References

- Alexander, S., & Golja, T. (2007). Using Students’ Experiences to Derive Quality in an e-Learning System: An Institution’s Perspective. *Educational Technology and Society*, 10 (2), 17-33.
- Baker, J.D., Redfield, K.L., & Tonkin, S. (2006). Collaborative Coaching and Networking for Online Instructors [Electronic Version]. *Online Journal of Distance Learning Administration*, IX, 7. Retrieved July 25, 2009.
- Bell, M. (2005). *Peer Observation Partnerships*. Milperra, NSW: Higher Education Research and Development Society of Australasia Inc (HERDSA).
- Bennett, S., & Barp, D. (2008). Peer observation – a case for doing it online. *Teaching in Higher Education*, 13 (5), 559-570.
- Bennett, S., & Santy, J. (2009). A window on our teaching practice: Enhancing individual online teaching quality through online peer observation and support. A UK case study. *Nurse Education in Practice*, 9, 403-406. In Press, Corrected Proof.
- Bernstein, D.J., Burnett, A.N., Goodburn, A., & Savory, P. (2006). *Making Teaching and Learning Visible: Course Portfolios and the Peer Review of Teaching*. Bolton, MA, USA: Anker.
- Biggs, J. (2003). *Teaching for quality learning at university: what the student does* (2nd ed.). Buckingham, UK: SRHE & OU Press.
- Biggs, J., & Tang, C. (2007). *Teaching for quality learning at university: What the student does* (3rd ed.). Maidenhead, UK: Open University Press.
- Boud, D. (1995). Assessment and learning: contradictory or complementary? In P. Knight (Ed.), *Assessment for Learning in Higher Education* (pp. 35-48). London: Kogan Page.
- Boud, D.P.M. (2002). Appraising New Technologies for Learning: A Framework for Development. *Education Media International*, 39 (3), 237-245.
- Brown, S., & Knight, P. (1994). *Assessing learners in higher education*. London; Philadelphia: Kogan Page.
- Cobb, K. L., Billings, D.M., Mays, R.M., & Canty-Mitchell, J. (2001). Peer review of teaching in web-based courses in Nursing. *Nursing Educator*, 26 (6), 274-279.
- Glassick, C.E., Huber, M.T., & Maeroff, G.I. (1997). *Scholarship Assessed: Evaluation of the Professoriate* (A Special Report). San Francisco, USA: The Carnegie Foundation for the Advancement of Teaching.
- Hammersley-Fletcher, L., & Orsmond, P. (2004). Evaluating our peers: is peer observation a meaningful process? *Studies in Higher Education*, 29 (4), 489-503.
- Kell, C., & Annetts, S. (2009). Peer review of teaching embedded practice or policy-holding complacency? *Innovations in Education and Teaching International*, 46 (1), 61-70.

- Kember, D. (2000). *Action learning and action research : improving the quality of teaching and learning*. London: Kogan Page.
- Laurillard, D. (2002). *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. London: RoutledgeFalmer.
- Lomas, L., & Nicholls, G. (2005). Enhancing Teaching Quality through Peer review of Teaching. *Quality in Higher Education*, 11 (2), 137-149.
- McKenzie, J., Pelliccione, L., & Parker, N. (2008). Developing peer review of teaching in blended learning environments: Frameworks and challenges. Paper presented at the *In Hello! Where are you in the landscape of educational technology? Proceedings Ascilite*. Melbourne. <http://www.ascilite.org.au/conferences/melbourne08/procs/mckenzie-j.pdf>.
- McMahon, T., Barrett, T., & O'Neill, G. (2007). Using observation of teaching to improve quality: finding your way through the muddle of competing conceptions, confusion of practice and mutually exclusive intentions. *Teaching in Higher Education*, 12 (4), 499-511.
- Polifroni, E.C. (2008). Evaluating Teaching Strategies: A Blended Perspective. *Journal of Nursing Education*, 47 (3), 95-97.
- Ramsden, P. (2003). *Learning to teach in higher education*. London, UK: Routledge.
- Schultz, K.K., & Latif, D. (2006). The Planning and Implementation of a Faculty Peer Review Teaching Project. *American Journal of Pharmaceutical Education*, 70 (2), Article 32.
- Swinglehurst, D., Russell, J., & Greenhalgh, T. (2007). Peer observation of teaching in the online environment: an action research approach. *Journal of Computer Assisted Learning*, 24 (4), 383-393.
- Taylor, P.G., & Richardson, A.S. (2001). *Validating Scholarship in University Teaching: Constructing a National Scheme for External Peer Review of ICT-Based Teaching and Learning Resources* (Technical Report). Canberra, Australia: Department of Education Training and Youth Affairs.
- Van Note Chism, N., & Chism, G.W. (2007). *Peer review of teaching: a sourcebook* (2nd ed.). Bolton, Mass.: Anker.
- Wood, D., & Friedel, M. (2009). Peer review of online learning and teaching: Harnessing collective intelligence to address emerging challenges. *Australasian Journal of Educational Technology*, 25 (1), 60-79.