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Peer review in online and blended learning environments

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http://www.iml.uts.edu.au/peer-review

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Executive summary

This project sought to develop, implement and evaluate a scholarly framework, processes and resources for peer review of learning and teaching in online and blended learning environments, for improvement, and for recognising and rewarding good teaching. The project used a co-productive, action learning approach, involving a core, cross-institutional project team, and institutional teams of six academics from each of the five Australian Technology Network universities.

Project activities included:

- reviewing relevant literature on peer review
- developing a scholarly framework for peer review in online and blended learning environments
- forming teams of six academics in each institution and supporting team members to engage in peer review
- developing protocols, guidelines and resources for peer review and for professional development and guidance for institutions
- evaluating through feedback from peer review action learning cycles, document analysis and interviews
- disseminating through workshops that engaged others with the peer review process while seeking feedback, and awareness raising through forum and conference presentations.

Peer review was seen as an activity that could contribute to peer learning as well as providing evidence about teaching. The project developed a framework for peer review, based on an adapted version of the qualities of scholarly work described by Glassick, Huber and Maeroff (1997), with p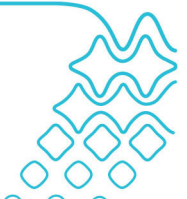rompts informed by literature on good teaching, scholarly teaching and the particular qualities of good teaching in online and blended learning environments. Teams of academics trialled the framework and associated review protocols and guidelines. Feedback was obtained from team members, with informal feedback from workshop attendees, promotion committee members, and a meeting of institutional teaching and learning leaders.

The project confirmed many of the issues that have been identified in the peer review literature and other Australian Learning and Teaching Council (ALTC) peer review projects, including the need for formative feedback and professional development. There were some nuances related to online and blended learning environments. Specific insights included:

- There was value in using a flexible, scholarly framework for both formative and summative purposes. The framework supports and structures peer review of teaching goals, preparation, methods, communication and interaction, outcomes, reflection and subsequent improvement.
- Peer review in online and blended learning environments needs to be carefully scoped, with specific aspects of teaching and subjects considered in relation to the whole of a subject or teaching context.
- Peer review in online and blended learning environments is often best conducted by peers with similar or more advanced levels of experience in these environments, particularly when the reviewee is using innovative approaches.
- Approaches to the use of peer review for promotion may range from formative, indirect approaches, in which close-up observation from peers is used to inform scholarly practice and contextualised in promotion applications, to summative voluntary approaches where the reviewee retains choice and control over what is reviewed and who is involved, to summative mandated approaches with independent reviewers. It is suggested that peer review in online and blended environments is most useful when it includes a formative focus and voluntary elements, to enable insightful evidence to be provided by reviewers who enter into the learning and teaching environment.

Acknowledgements

1.0   Introduction and project aims

Since the early 1990s, online and blended learning environments have expanded from pockets of innovation to mainstream university teaching and learning. In a recent study of undergraduate students in the US (Smith, Salaway & Caruso 2009) almost 90% of students reported using a learning management system in their courses. A corollary of this expansion is that most university teachers are now teaching in environments that offer a blend of face-to-face classes and online learning experiences for students. This project addresses two issues related to this widespread change in learning and teaching environments. The first is a desire to enhance our capacity to improve the quality of teaching and learning in blended learning environments. The second is the need to extend the range of evidence for good teaching in blended learning environments and, more generally, to include scholarly peer review processes that can be embedded in institutional practices for recognising and rewarding teaching.

The use of the term 'blended learning' has become common but is somewhat contentious (Oliver & Trigwell 2005). In this project, we have used the term 'blended learning environment' to emphasise that blending typically refers to a blend of opportunities for student learning in the learning environment rather than ways in which students themselves might blend different learning strategies or experience particular patterns of variation in the blend to achieve particular learning outcomes. We have defined a blended learning environment in this project as any environment on a continuum between online learning and face-to-face learning that incorporates elements of both (see Mason & Rennie 2006).

In Australia, much teaching takes place in some form of blended learning environment, ranging from mostly face-to-face teaching with some online support materials to almost entirely online subjects with perhaps a face-to-face introduction. Approaches to evaluating teaching and learning have not necessarily kept apace with this change. A range of quality frameworks has been developed addressing aspects of e-learning provision and support at the institutional level (Institute for Higher Education Policy 2000; Oliver 2005; ACODE 2005; Marshall 2005), but with less focus on evaluating the quality of teaching or students' experiences in this environment. A basis for this project was the need for a more holistic approach to judging the quality of teaching and learning in e-learning and blended learning environments based on what and how students learn in these environments. In response to this need, we sought to explore and develop processes for peer review that would enable review of teachers' intentions and practices and how these are connected to students' engagement and learning outcomes in blended learning environments.

There has been relatively little use made of peer review in the evaluation of e-learning and blended learning experiences, although peer observation processes (eg Bell 2005) have become more widely used for face-to-face teaching. Many resources have also been developed for the peer review of teaching (or course) portfolios, particularly in the US (Van Note Chism & Chism 2007; Bernstein et al. 2006). In the online environment, the main focuses, until recently, have been peer review of online courses and course materials (eg Wood & George 2003) and learning objects (Taylor & Richardson 2001). The Australian Universities Teaching Committee learning designs project (<http://www.learningdesigns.uow.edu.au>) also used expert peer review to evaluate learning designs.

Peer review in this project is conceived as a process of making scholarly judgments about the quality of learning and teaching, as well as a process of scholarly professional learning. Few teachers 'experience critical review and redirection of the kind they receive in other scholarly work' (Bernstein & Bass 2008, p307). Peer review can complement student feedback evidence. It can also facilitate individual
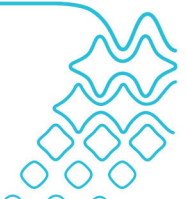
and institutional learning about good teaching and learning in blended learning environments. Oliver and Trigwell (2005) argue that the idea of blended learning might be 'redeemed' if the 'blending' of different media enables students to experience patterns of variation necessary for coming to understand ideas in different ways or see things from different perspectives. The same might be said of teachers and institutional committees that judge teaching, as peer reviewees, reviewers and committee members experience an increasing range of variation in practices that support student learning across different disciplines.

Particularly in the context of teacher promotion, it is important to distinguish between necessary practices that would be expected in all teaching and contextualised practices of teaching that inspire high quality student learning and deserve to be recognised and rewarded.

Project aims and deliverables

This project was designed to enhance our capacity to use peer review to improve the quality of teaching and learning in online and blended (or mixed-mode) learning environments and to inform decisions about academic performance, promotion and teaching awards for those who teach in these environments. It sought to extend the range of evidence for good teaching, in online and blended learning environments and more generally, beyond student feedback alone to include scholarly peer review processes that can be embedded in institutional practices for recognising and rewarding teaching.

To address these broad intended outcomes, the project sought to develop, implement and evaluate a scholarly framework, processes and resources for peer review of learning and teaching in online and blended learning environments, and for using the evidence from peer review for recognising and rewarding good teaching. The intended deliverables from the project were:

- a scholarly, evidence-based framework for describing and peer reviewing high quality learning and teaching in e-learning and blended learning environments, illustrated by case studies of practice from a range of different disciplines and institutions
- tested processes, protocols and resources for conducting peer review based on the framework, developing the capacity of academics to be peer reviewers and to use peer review outcomes to demonstrate the quality of their teaching for performance review, promotion and teaching awards, and to make judgments based on peer review evidence
- workshops and resources for peer reviewers, to develop their capacity to use the scholarly framework for peer review and reflect on teaching and learning in their own contexts
- resources for academic supervisors and members of promotion and teaching awards committees, to develop their capacity to use peer review evidence for making judgments about teaching and learning in online and blended environments
- guidelines for implementing and embedding the peer review process in institutions, including suggested modifications to institutional policies and practices.

2.0 Project methodology

The project used a co-productive, action learning approach for developing, trialling and evaluating the peer review framework, resources and approaches used in the project. The approach involved a core, cross-institutional project team (core team) and five institutional teams of academics, one in each participating university (institutional teams). The overall methods involved an intersecting set of processes for developing and trialling peer reviews, evaluation, dissemination, consultation, communication and project management.

The methods used for developing and trialling the peer review framework and resources embedded aspects of evaluation through action learning cycles and engaged dissemination through seeking feedback from wider communities on early versions of resources. Activities included:

- developing a scholarly framework for peer review in online and blended learning environments. A first version of the framework was developed through drawing on literature on good teaching, blended learning environments, scholarly teaching, peer review of teaching and the promotions criteria from the partner universities. Draft protocols and supporting resources for reviewers and reviewees were also developed. Details of the framework and its development are provided in Section 3.0 of this report
- forming institutional teams of six academics in each institution. The teams most often consisted of three pairs of academics who would act as peer reviewers and reviewees
- supporting institutional team members to engage in peer review using the framework and draft protocols, and provide feedback to the institutional groups using an action learning approach with several cycles of trialling
- developing guidelines for supervisors, members of committees and interpretation of peer review evidence
- identifying issues to be considered in implementing and embedding peer review processes in institutions.

Methods for engaging with and consulting members of wider academic communities included:

- seeking feedback on the proposed framework and approach from the wider academic community at a HERDSA conference showcase in July 2008, and seeking feedback on the trialled process and case examples at ASCILITE in December 2008
- discussions of the project at meetings of the ATN universities Teaching and Learning Committee and brief discussions at a meeting of the ATN Deputy Vice-Chancellors (Academic)
- developing and running workshops to expand awareness of the peer review process and trial workshop resources. Workshops were trialled in the lead institution, in an ATN symposium for early career academics and at the ASCILITE 2009 conference.

Communication and project management approaches included:

- an initial two-day core team meeting to plan the project and set up communication strategies
- gaining of ethics approval for the project from the five partner institutions. The lead institution sought approval first. Most, but not all, others were able to gain approval through recognition of this initial approval
- set-up of an online site for project internal use and management, using Blackboard at the lead institution
- core team teleconference meetings held approximately monthly
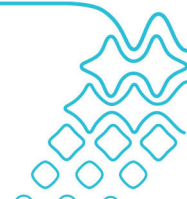
- a cross-institutional team meeting involving the core team and some members of the institutional teams from three of the partners; held following the ASCILITE conference in 2008
- group meetings and email communications within the institutional teams, with the methods of communication varying across institutions.

Project teams and participants

The core team comprised the overall project leader and project manager and the nominated institutional project team leaders, one from each of the five ATN universities. Four of the project team leaders were in academic development or similar positions and one was an academic in a faculty of education. Each team member had previous experience in working with blended learning or formative peer review, or both. There were some changes in the membership of this team during the project, with one university having four members over time and another having two.

Each institutional team was planned to comprise six academics, representing a diversity of disciplines and fields of practice. Funding of $1000 per team member was provided to support participation, for example by enabling some time release from marking. The aim of the institutional teams was to enable trialling, local adaptation and evaluation of the project resources across different contexts and encourage engaged dissemination within the institutions as the project progressed.

Selection of institutional team members was discussed in the first team meeting, with the aim to include academics from a diversity of disciplines and blended teaching and learning environments. The willingness of participants to contribute to the development and potential dissemination of the project was an important consideration. It was agreed where possible to invite academics who had shown some prior interest or involvement in learning and teaching development and who were generally seen as good teachers, so that they would have credibility with their colleagues. It was also our preference to invite a pair or small group from each discipline to enable peer learning and reciprocal peer review within the group.

Differing approaches to selection were used in different universities depending on the local context. In the lead institution and two of the partners, academics from three different disciplines were invited, based on the core team members' awareness of their interests in learning and teaching. In some cases a pair of academics was invited from a discipline; in others one academic was invited and requested to choose a peer. In the fourth university, participants who had previous experience of formative peer review were drawn from two disciplines. In the fifth, participants included a pair of academics from a discipline team along with four academics who approached the academic development unit and became reviewees, with the core team member acting as reviewer.

The final mix of participants, excluding the institutional team leaders, included academics from:

- business, including accounting and economics   6
- health sciences, including nursing, psychology and allied health   13
- education, including science/mathematics education   5
- communications and creative media   4
- engineering and IT   3

Two academics from Law also contributed but did not complete peer reviews. The participants had varying levels of previous experience of peer review but not in online or blended learning environments. A few had participated in formative peer review focused on face-to-face teaching, two were involved in an established
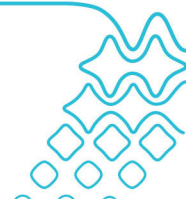
developmental peer review process in their course team and five had participated in a Graduate Certificate in Higher Education that had a peer observation component.

Blended learning environments have become very widespread across universities, but the specific combinations of face-to-face, online and other learning and teaching activities involved in the 'blend' vary considerably. The project involved subjects that covered the range from almost entirely face-to-face with some online resources to subjects offered entirely or almost entirely online. This enabled testing of the framework in a broad diversity of contexts.

Methodology for developing and trialling the peer review process and resources

The development, trialling and formative evaluation of the peer review framework, process and resources occurred over three semesters. It involved a complex action learning approach. At each institution, team members engaged in peer review and provided their feedback on the process to their core project team member who passed this information on through monthly project team teleconferences. Feedback from the teleconferences was used to make modifications to the resources.

The timing of commencement varied across institutions because of changes in team members, so the lead institution and two of the partners commenced peer reviews one semester earlier than the other two institutions, with the lead institution working slightly ahead of the others.

In most of the participating institutions, the process began with a group meeting between the institutional team leader and participants. Typically the first meetings were held over lunch or coffee and involved familiarising everyone with the project proposal, making clear the expectations and involvement in the project, developing rapport and trust within the group, and discussing the definitions and dimensions of peer review and blended learning. Once the group and the dimensions of the project were established, the focus turned to the peer review framework and proposed process and resources.

Draft peer review templates and protocols were developed in the lead institution, in consultation with the project team. In their early meetings, lead institution participants were provided with and discussed a draft framework and template that were designed to create a case study of peer review for the project. These resources were modified after group discussions before being passed on to the other institutions. The same versions were used in the second and third institutions. In the fourth and fifth institutions, which started the process later, participants used revised versions of the documentation, templates and review process, and further feedback was provided to the project team.

Following the briefing phase and provision of resources in each institution, team members typically worked in pairs on the peer reviews. Some pairs engaged in reciprocal review, in which each participant was both reviewer and reviewee. Other participants undertook only one of these roles. The number of peer reviews that any one participant engaged in varied from one to four, with two participants engaging in both discipline-based and cross-disciplinary review. During the peer reviews, follow-up group meetings and email communications were used to support institutional team members and collect feedback from them about the process and resources.

The subject environments in which peer reviews occurred, and the aspects that were reviewed varied widely across the project. Subjects ranged from those offered entirely online to those with an almost equal blend of face-to-face and online learning opportunities, to subjects that involved mainly face-to-face teaching with
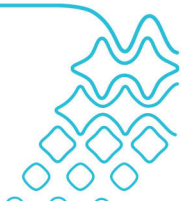
some online supporting materials. Aspects reviewed ranged from a teacher's explanation of complex ideas in a face-to-face lecture to student engagement in online discussion boards, student engagement and performance in collaborative online assessment tasks and the overall design of an online subject to be offered at a distance. This provided a diverse range of opportunities for testing the framework and resources, and participants made numerous suggestions.

As part of their project commitment, institutional team members were expected to write a short case study that included documentation of their peer review. However, there was considerable variability in the case studies and documentation that were produced by the participants. In some cases, members of the project team provided support for participants or produced some of the required documentation themselves in conversation with their team members.

3.0 Literature on peer observation and peer review

'Peer observation of teaching' (Bell 2005) is the term that has been widely adopted to describe peers observing each other's teaching in face-to-face contexts. In the current project, peer observation is differentiated from peer review, which can also take place in face-to-face settings but tends to be a more comprehensive term (Courneya, Pratt & Collins 2008). Another term, 'peer coaching' (Huston & Weaver 2008), refers to a process that, although formative, has a focus on 'instruction' in particular techniques or models of teaching (Bell 2005) rather than on the mutually supportive relationships of peer observation. This section reviews the literature on peer observation and peer review in face-to-face, online and blended learning environments.

Peer observation

Peer observation is well established, particularly in health sciences (eg Blanco 2007; Martsolf et al. 1999; Siddiqui, Jonas-Dwyer & Carr 2007) and has been an important component of many foundations of university teaching courses (Bell 2002) (eg Carew et al. 2008). It has also provided evidence of the scholarship of teaching in higher education for teaching portfolios (Seldin 1997; D'Andrea 2002; MacAlpine 2001; Quinlan 2002).

Of significance to the Australian higher education sector, Maureen Bell's extensive work on peer observation of teaching includes both self-directed reviews and guided experiences with an expert reviewer or educational developer (Bell 2002). Her work emphasises promoting and valuing partnerships for improving teaching practice and the importance of 'teaching conversations' (Bell 2005, p50), and has provided useful resources (Bell 2005, 2010) for those supporting or conducting reviews. Building in part on Bell's work, the University of Wollongong has been supporting peer observation as an institution for more than a decade (University of Wollongong, 2009). However, quantitative evaluation data has been difficult to collect due to the very personal nature of peer observation partnerships and outcomes (Bell 2002).

Many important projects have been developed from this foundation, ranging from an Australian Learning and Teaching Council (ALTC) project (Harris et al. 2008b) to a project that has enhanced the teaching practice and experiences of tutors (Bell & Mladenovic 2008; Bell, Mladenovic & Segara 2010). The evaluation of teaching in disciplinary or departmental groups has also become a common goal of peer observation initiatives, in order to support both good practice and for 'quality enhancement' (Menzies et al. 2008). Consequently many universities across Australia have developed their own peer observation resources for staff development on their websites (eg Goody 2004).

Peer observation is also well established in the United Kingdom, strongly influenced by the national quality assurance processes' drive towards 'best practice'. The ESCALATE project and guidelines (Gosling 2000a; Gosling 2000b) have been widely used across many departments and universities (Gosling & Ritchie 2003). The emphasis on reflective practice for developing as a teacher (see for example Hammersley-Fletcher & Orsmond 2005) is joined in the United Kingdom to the requirement for institutional reporting. This has resulted in confidential formative review processes that are also aggregated for outside stakeholders (Race, Staff & Fellows 2009). A significant motivating factor for many individual teachers to engage in peer observation has been to complement mandatory institutional student evaluation data (Brent & Felder 2004). However, peer observation reports have also become a requirement in certain universities in the United States (Ackerman, Gross & Vigneron 2009) and especially in the United Kingdom, providing a challenge to the formative benefits of voluntary review (Byrne, Brown & Challen 2010).

Who the 'peer' is in peer observation is an important consideration (Gosling 2002), with the most successful interactions being collegial partnerships between those who are equals in terms of teaching and learning, although not necessarily in administrative terms (Bell & Mladenovic 2008; Anderson, Parker & McKenzie 2009; Kell & Annetts 2009; Bell, Mladenovic & Segara 2010). Nonetheless, peer observation often refers to visitations from more senior academic managers, quality auditing teams or academic developers (Hammersley-Fletcher & Orsmond 2004; McMahon, Barrett & O'Neill 2007).

The value of peer observation is well accepted for reflection on teaching, and has been linked to different types of reflection (Bell & Mladenovic 2008; Bell, Mladenovic & Segara 2010), and the importance and value of a critical friend to support and challenge these reflections is frequently reiterated in the literature (see for example Symons 1987 in Bell 2005; Melrose in Lomas & Nicholls 2005; Shortland 2010). However, establishing and managing supportive interactions throughout the process of observation, how best to do this and the dangers if this dynamic does not function well are crucial aspects for successful outcomes (see for example Bell 2010). The consequent requirement for training in peer observation, so that teachers understand that there are a variety of ways to be an effective teacher, is an important consideration (Courneya, Pratt & Collins 2008). Mixing observers across disciplines should not be problematic (Hatzipanagos & Lygo-Baker 2006) if the relationship is carefully established and nurtured. Collaborative models of teaching and peer observations across areas, as well as within teaching teams, are both strengthened by and can develop from such peer interactions (Anderson, Parker & McKenzie 2009). Indeed the development of the 'critical friend' relationship is not only important for facilitating peer review but can also be a significant outcome in its own right (Shortland 2010).

The classroom observation methods that form the basis of peer observations inevitably lead to a focus on classroom teaching behaviours, and can lead to a performance mindset and anxiety in one-off reviews (Bell 2002). The importance of the affective dimensions of peer observation (Kell 2005; Kell & Annetts 2009), both positive and negative, is explicitly discussed by Bell, Mladenovic and Segara (2010), who note the links to reflective practice in this respect. There is also positive affirmation through peer observation for academics who are able to value and reclaim teaching (Peseta 2006). In this process teaching practice and identities can be strengthened: '*Peer observations within the course communities served particularly to further the emergence of academic teacher identities'* (Warhurst 2006, p119). McMahon, Barrett and O'Neill (2007) make the point that the essential requirement is 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 (this has been strongly echoed by the case studies in the current project).
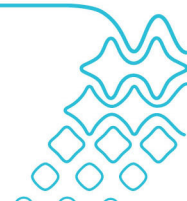
Despite highlighting that the relationships between participants are central to its success (Hatzipanagos & Lygo-Baker 2006), the face-to-face setting of peer observation has encouraged a preponderance of checklists (eg Fernandez & Yu 2007; Jarzabkowski & Bone 1998; MacAlpine 2001). These are often combined with peer review of materials (Brent & Felder 2004) but tend to focus on the conditions that are necessary for learning (such as accessibility of materials and availability of facilities for student interaction). These preconditions are not, however, sufficient to support and inspire high quality learning. What are important are the intentions, processes and outcomes of learning (McKenzie et al. 2008) and therefore these three phases of learning together (Biggs 2003) need to be part of teaching reviews. Gosling's differentiation of the managerial (or evaluative), developmental and finally peer review models, including his move to go beyond peer observation, provides a useful conceptual and temporal transition to the consideration of peers reviewing teaching (Gosling 2002).

Peer review of face-to-face teaching

The broader term of 'peer review' for teaching is well established internationally (eg Bernstein et al. 2006; Van Note Chism & Chism 2007). Although there are many variations that describe this process, for example peer partnerships (Blackmore 2005), 'peer review' usually describes more varied interactions than the term 'peer observation' (discussed above). Peer review, more often than peer observation, has summative goals and is more likely to include a wider range of contexts, which may include consideration of online materials or teaching (see for example Van Note Chism & Chism 2007). Peer review in face-to-face contexts is considered below and followed by an examination of peer review in blended learning environments.

In the United States a large amount of work related to peer review has emerged over the last 30 years, with activities since the 1990s based on the American Association for Higher Education (AAHE) and subsequent Carnegie Foundation projects, and is now well embedded in the Scholarship of Teaching agenda (D'Andrea 2002). The Teaching Initiative program has generated a number of important projects including the *Peer Review of Teaching* in 1994 (Hutchings 1996). An influential development has been the University of Nebraska's *Peer Review of Teaching Project*, led by Bernstein in the late 1990s as part of the AAHE's Peer Review of Teaching Excellence program. This aimed to 'make teaching visible' (Bernstein et al. 2006) and identified four key areas of focus for review: course intellectual content; quality of teaching practices; quality of student understanding; and evidence of reflective consideration and development. The project also asked reviewers to nominate their experiences of teaching in the review area (University of Nebraska 2008). Examples of course portfolio reviews, which are mostly of face-to-face courses, are then made available to broad audiences on the website (University of Nebraska 2008). Bernstein's influential work recognises the need to acknowledge teaching as "serious intellectual work or scholarship … rigorously evaluated by a community of peers" (Bernstein 2008, p51). Other work related to the AAHE project includes Martsolf et al. (1999), who encourage an initial focus on the formative rather than summative aspects of peer review. They identify forming a task force, observations and teaching circles as the most useful approaches in their context of Nursing. Atwood et al. (2000) utilise the eight basic tools for peer review drawn from the AAHE project to discuss barriers including what the content of reviews should be, who should conduct them and how. Many useful resources have been developed for the review of teaching in the US, for example Van Note Chism and Chism (2007) provide a key set of resources for course materials and class observation along with sample standards for peer review of teaching systems.
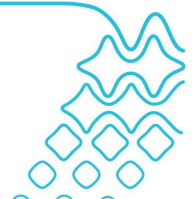
In part, as a result of such major projects, and the quality assurance drivers, "peer review is considered a gold standard for quality assurance of teaching and learning" (Powell, O'Neill & Thomson 2008, p37). The literature on peer review in face-to-face settings is vast, with a strong presence from the medical teaching and health sciences. For example, Kell (2005) looks beyond teaching performance to the wider teaching role. As a result, the peer review process undertaken by her and her colleagues became less summative and more formative and supportive. In common with other studies, she found that using triads from across subjects took the focus off content. Hardy and Phillips (2007) from the University of South Australia's School of Health Sciences discuss the development of their course review process. This included five categories for possible review (course structure, student centred teaching and learning, assessment, course content, and international perspectives and support). Interestingly, lack of content expertise was seen to have a positive effect, strengthening the focus on student experiences.

In Australia significant recent projects investigating peer review have been funded by the ALTC, including: a national survey of peer review of teaching activities in Australian higher education and an outline of the principles, benefits and conditions for effective peer review (Harris et al. 2008b); and a project to develop and implement a pilot program of external peer review of teaching at four Australian universities for promotion purposes (Crisp et al. 2009). Harris et al. (2008b) stress the idiosyncratic nature of different university policies and procedures. In their audit they found that although the value of peer review for teaching was well recognised, they could not identify broad, systematic implementation or typical processes:

> There is no 'typical' peer review of teaching process. Programs can be voluntary or mandatory, comprise a single review or a series of rolling reviews conducted over a period of time; feedback can be given verbally, in written form, both, and so on (p13).

Their project team developed a useful handbook (Harris et al. 2008a) which includes a framework that outlines the benefits and conditions for effective peer review. The preconditions for effective peer review suggested include: collegial trust and respect; supporting guidelines; resources; advice; and the incorporation of peer review in policies relating to staff appraisal, promotion and special recognition. Harris et al. also suggest using the core aspects of teaching developed for the ALTC Awards for University Teaching (ALTC 2010) as starting points for developing criteria for peer review.

Another large ALTC project that initially focused primarily on peer review of face-to-face teaching aimed to create a summative peer review process to be incorporated into promotion processes. However, in response to feedback during the project they also incorporated a formative review option (Crisp et al. 2009). Key points from this project include: a conscious choice to concentrate on peer review for promotion (particularly from Level C upwards) with formative reviews primarily considered as a 'training process'; and separate processes and protocols for internal peer review, which is done at the university level and is observation-based, and external peer review, which is a benchmarking process conducted by other institutions, possibly internationally. In common with other investigations this project confirmed that reviewers need to be trained and the project has materials for this purpose on their website (Crisp et al. 2009).

The peer review literature highlights important considerations for peer review including: the purpose of the interaction; who will be involved in the review; what makes an effective review; and how to minimise commonly encountered issues. The purpose of the review needs to be considered in terms of both intent and procedures. A strong theme in the peer review literature is the distinction between formative and summative review (Huston & Weaver 2008). The benefits that accrue

from the formative use of peer review and quality enhancement are a major driver (Lomas & Nichols 2005), making a:

> strong case for establishing peer review processes that are based first and foremost on the developmental objective of helping individuals to develop insights into their teaching, for this explicit emphasis can encourage the most open sharing of views and ideas. (Harris et al. 2008a, p8)

There is some debate as to whether formative and summative purposes can be combined. Because many people are uncomfortable with using peer review (or observation) for summative or quality assurance purposes, it is often argued that they therefore need to be separated (Byrne, Brown & Challen 2010). Brent and Felder (2004), for example, create a protocol for both formative and summative purposes but do not combine these in the same review. However, there is some agreement that despite the challenges these two purposes can be combined, with many peer reviews sitting somewhere along a continuum between the two (Harris et al. 2008b).

Peer review that is voluntary and summative can also be a formative experience (Anderson, Parker & McKenzie 2009). When academics are asked why they choose to engage in voluntary peer review they often cite developmental and collegial motivations (eg Pelliccione et al. 2008). Peer reviews have also proved valuable for triangulating results of student feedback surveys and offer a more "multi-dimensional evaluation of teaching" (Schultz & Latif 2006, p4).

Clearly aligned to the purposes of the review is who will be involved: peers (collegial partners), experienced raters (Brent & Felder 2004) or knowledgeable experts guiding and developing others (Bolt & Atkinson 2010). Harris et al. (2008b) discuss this issue and note the value in the differing perspectives that are opened up by reviewing peers from different disciplines or areas. The affective aspects of sharing one's teaching work with peers (Bell, Mladenovic & Segara 2010) are rarely explicitly discussed, although anxiety may be mentioned. This reluctance is partly due to the often solo and isolated experience of teaching.

However, through supported collegial conversation, peer review can deepen existing relationships, or create new ones, sometimes across disciplines, and the building of collegial relationships can be "an unexpected consequence that neither party had envisaged" (Shortland 2010, p300). Conversations between teachers and across a variety of settings are fundamental to successful peer review, with the possibility of conversational communities becoming both a key component and significant outcome of peer review (Bernstein & Bass 2008).

In summary, best practice peer review is found in Blackmore's (2005) literature review to depend on: "training; [a] variety of reviewers; links to staff appraisal and development along with follow-up activity; trusting relationships; and evidence of dissemination of improved teaching" (p224).

Peer review in online and blended learning environments

Literature about peer review in blended and online environments has until recently been sparse (Swinglehurst, Russell & Greenhalgh 2006). However, for some time there has been useful work associated with the evaluation and review of: high quality learning objects (Taylor & Richardson 2001); learning designs (Wills et al. 2009); e-learning materials and resources (Ruiz, Candler & Teasdale 2007); and online courses and materials (Wood & George 2003). Some of these are outlined below. Recent literature exploring peer review in blended learning contexts is then considered.
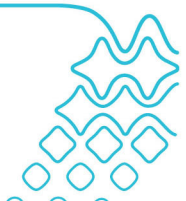
Learning objects

There is an established tradition of peer review of learning designs or learning objects. Taylor & Richardson's (2001) authoritative study focuses on ICT-based teaching and learning resources and suggests three forms of evidence for peer review: documentation explaining design considerations, a description of the resource and reflection on this.

Learning designs

Documenting the pedagogy, reuse and sharing of 'learning designs' also provides a useful space for peer review. Hung & Chen (2001), in their examination of e-learning design, emphasise the importance of connectivity and dialogue as well as being able to manage content and participant involvement. The four dimensions they consider essential for this — situatedness, commonality, interdependency and infrastructure — are also drawn on by Boud & Prosser (2002). Their framework for reviewing learning activities focuses on their impact on learning, and informed the development of formative and summative review guidelines for learning designs. They highlight four key influences on high quality learning in this context: learner engagement, acknowledgement of contexts, challenging learners and providing practice. Littlejohn and Pelger (2007) usefully differentiate between the 'media blend' and the 'activity blend', and Sharpe (2006) notes that blended learning designs can change the roles of the different participants. More recently, the ALTC-funded Project EnRoLE (Wills et al. 2009) has built a community of university teachers using online role play as well as a repository of sharable and reusable role play learning designs. This project incorporated an associated peer review process using the ALTC Exchange.

e-Learning materials

Evaluation or review of e-learning materials commonly involves using a checklist (Knox 1999; Oliver 2000). Checklists have a useful role in helping to identify questions and parameters, but they are limited in terms of resolving complex aspects of teaching in context in blended learning environments because they tend to narrow the focus to reviewing e-learning materials rather than the teaching and learning practices which use these materials. Conole et al. (2004) propose a model for "pedagogically driven approaches to e-learning" (p17) for guiding both design and auditing of e-learning but not the actual learning that takes place (see also Conole & Fill 2005). Evaluation issues in an online environment highlight that 'subtle changes' are inherent in the nature of these environments (Oliver 2000).

Widely cited in the medical peer review literature, Ruiz et al. (2007) also focus on materials. They clarify what they see as the significant differences between e-learning and traditional (print) materials in terms of: pedagogy (going beyond what could be achieved in traditional formats and exploiting temporal and spatial choices); format (ie incorporating elements like hyperlinks – multimedia to effectively go beyond traditional methods); usability (HCI factors and the quality of student experiences when interacting in the learning environment); navigation (exploitation of flexibility along with a recognition of the need for clear organisation); interactivity (evaluating effective or ineffective use of this option); delivery (differentiation of various media for delivery); and currency (of materials and more broadly). Written and framed in terms of clinical medical teaching, the additional dimensions of peer review in an e-learning versus a traditional environment are discussed in the context of providing evidence of scholarship. The authors of the current report acknowledge Glassick, Huber and Maeroff's (1997) six criteria for assessing scholarly work. Those authors conclude by suggesting the need to develop peer review training, multidisciplinary peer review, guidelines and incentives. The interest for peer review in the current project is not online course materials per se but rather the online interactions among colleagues and students.
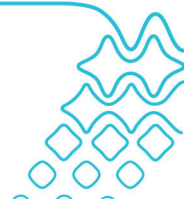
Online courses

Denise Wood and her colleagues provide a review of instruments (checklists and generic descriptors) for online course development and review, identify their concerns with these and explain their development of a new peer review instrument (Wood & George 2003; George, Wood & Wache 2004). Their broader considerations and categories and the three case studies (Health Sciences, Pharmacy and Planning) used to trial their instrument are particularly useful. As found in face-to-face settings, trial participants:

> felt that it was important to identify which aspects of the online course component needed to be peer reviewed … [and] the academics indicated that they would feel 'safe' asking a colleague who had already developed an online learning environment … to provide feedback on their online course. (George, Wood & Wache 2004, p297)

Wood and her colleagues consider the ways in which their instrument supports the scholarship of teaching and learning, and provide a framework based on elements of good practice. The ALTC project *Peer Review of Online Learning and Teaching* (Wood & Project Team 2009) refines the development of this online tool for peer review of online materials and teaching. Wood & Friedel (2009) discuss encouraging academics to take a 'Web 2.0 approach' to peer review by sharing in the creation of criteria and contributing their own examples. They also built a feature to create reviews automatically around themes, for example, the first year experience (Scutter & Wood 2009).

Blended learning environments

New research on blended learning environments emerged during the course of the current project, particularly in the UK, which is strongly driven by Quality Assurance Agency processes (Quinlan 2002) alongside a tradition of scholarly work in online learning (Swinglehurst, Russell & Greenhalgh 2008). Until recently, there had been surprisingly little published in the area of peer review in online and blended learning environments, even though many subjects in universities in Australia and elsewhere are now delivered in blended modes (Swinglehurst, Russell & Greenhalgh 2006).

Peer review of teaching presents particular opportunities and challenges in blended learning environment (Swinglehurst et al. 2006; Bennett & Santy 2009; Wood & Friedel 2009). The dearth of literature in this area presents challenges:

> 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 … both the implementation and exploration of online peer observation are still in their infancy and a wide range of aspects remain to be investigated. (Bennett & Barp 2008, p. 564)

One key aspect of interest is how the teacher has designed the learning environment – with a specific mix of learning experiences, resources, media and technologies – to facilitate the achievement of specific learning outcomes. However, Bright (2008) notes that:

> There are few well-known conceptual frameworks to analyse this feedback and lecturers are sometimes daunted by 'best practice' e-teaching guidelines which often turn out to be long and detailed checklists of what the lecturer should be doing online. (p75)

How teachers make these choices and scaffold student learning are important elements to include in reviews in blended contexts. Gosling (2009) builds on his three models of peer review and emphasises the need to go beyond observation in what he terms a 'collaborative model' of peer-supported review, which sees reviews
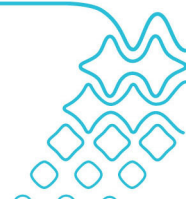
proceeding "through conversation and dialogue, examination of relevant documents and online material, and in some cases, observation of teaching" (p14). For this process his 'guiding principles' include: autonomy; self-evaluation; developmental process; mutual trust and support; professional practice; student learning; professional and scholarly processes; working in pairs, teams or communities; and results achievable within normal working hours.

Bright (2008) takes a collaborative approach to the development of a framework for evaluating 'online presence' in blended courses. The process he outlines includes self-review based on indicators given to the reviewer as a starting point for completing the review. The process also includes an interviewer, or chairperson, who introduces open-ended questions as a guide; however, the time taken to complete this process, and particularly the self-review, was an issue in this study. Hall & Conboy (2009) see scope for discussions about teaching, blogging, peer observation and mentor support to develop teachers' professional identities and build innovative practice.

There is an added challenge associated with blended learning environments, where the very nature of the environment further complicates peer review. Teaching and learning activities are distributed across both online and offline 'sites' of classroom and learning activity. The less ephemeral nature of online learning offers new possibilities for peer review but additional challenges of time and space (Bennett & Santy 2009). Assessment, for example, is one area where these challenges are often confronted albeit rarely addressed (Anderson, Parker & McKenzie 2009). Bennett and Barp write:

> 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. (2008, p567)

There is disagreement about whether blended learning environments enable the 'capture' of more aspects of teaching and learning, but the scope of the reviews varies considerably (Bennett & Barp 2008). Impacts on assessment, for example, are not always apparent but are easier to trace if they are online.

The exciting possibilities offered online include reviewing previous interactions relating to a subject, with options for ongoing engagement over extensive timeframes (Baker, Redfield & Tonkin 2006; Cobb et al. 2001). For reviewers there is also great value in this peer review process (Schultz & Latif 2006), and online observers learn in this role (Bennett & Barp 2008). In blended learning environments, reciprocity of peer review is particularly valuable, providing "mutual support in the often isolated process of teaching online" (Bennett & Santy 2009, p404). For innovative teachers forging new paths online for their students, being able to "establish connections through which to gain a window into the practice of fellow innovators" (Bennett & Santy 2009, p405) is an important lifeline.

Summary

> SOTL [Scholarship of Teaching and Learning] is an important source – but not the only source – for the necessary knowledge, practices and resources. We need to consider craft knowledge and professional knowledge as well as research-based knowledge, and how to integrate pedagogical content knowledge with open educational resources. We will also need research on the processes and tools for these teaching communities to promote, support, share and mobilize their knowledge and resources. (Bernstein et al. 2010, p1)

The literature on peer observation and peer review in face-to-face contexts provides a solid basis for the practise of peer review, with many resources to help teachers
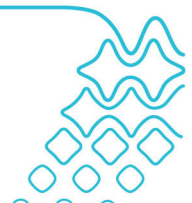
engage with their peers to improve teaching. Recent ALTC projects have provided an Australian body of work on peer review including a picture of Australian university practice and resources as well as protocols and processes for peer review relating to promotion. Although there is a lack of agreement on the overall purpose of reviews in the literature, peer review can inform and provide evidence on our teaching to others, and can ultimately be used for both formative and summative purposes.

In the online and blended learning environments that are the focus of this project, literature is still relatively scarce, but studies that tease out subtle differences, opportunities and challenges are starting to appear. ALTC projects developing online peer review tools and a repository of role play learning designs with an associated peer review process are important sources of ideas about online peer review. These national collaborative projects, alongside the projects in principally face-to-face settings, have provided useful case studies, websites and resources.

Valued factors that have emerged in online and blended learning environments are trust, collegiality and conversation among review colleagues, who often work in isolated environments, both physically and conceptually. Through successful peer review, teachers are able to define and plan a way forward. This can be supported through the use of structure, materials and processes to guide exploration and provide a template for future action. The provision of a thoughtfully developed framework for the review process is important in order to support a broader perspective that goes beyond mere observation of teaching performance. Continuing conversations about the scholarship of teaching and learning can ultimately lead to course improvement and quality (Cobb et al. 2001).

Finally, although there has been little focus on the process and learning outcome phases of blended and online student learning in the literature to date, the empowering potential of peer review is reflected in Swinglehurst, Russell and Greenhalgh's (2008) suggestion that universities need to ensure "sanctioned and protected time" (p391) for academics in all disciplines, to reflect on what counts as good teaching and learning in online and blended learning contexts.

4.0 Outcomes from this peer review project

Development of a scholarly framework for peer review

Peer review in this project was seen as an activity that could contribute to peer learning as well as to the provision of evidence on teaching to aid recognition and reward. Development of a peer review framework commenced with defining the purposes and scope of peer review with regard to the aims of the project. The following initial assumptions informed the framework development:

- A framework for peer review of teaching in online and blended learning environments needs to allow for a wide diversity of teaching and learning contexts, from online only subjects to subjects that are primarily offered face-to-face with some online components. The intention is to have a common framework that can be used for recognition and reward, rather than separate criteria for different aspects of teaching such as face-to-face classes, facilitating online learning or course design.
- A framework for peer review needs to focus on aspects of teaching which peers are well placed to observe and on which they can provide useful feedback and direct evidence. These aspects include the content that is taught, the appropriateness of teaching methods to teaching contexts and the resources available. Peer review evidence should complement but not replace evidence provided by students (see Harris et al. 2008a).
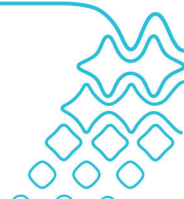
- Peer review has the potential to consider evidence across the range of teaching activities, including: planning and preparation; teaching and learning; outcomes of teaching; teachers' reflections; and actions taken towards improvement (see Biggs, 2003; Trigwell, 1995). Online and blended learning environments offer particular opportunities to review evidence of student engagement in and learning from available learning opportunities.
- For peer review evidence to be useful for recognition and reward, it needs to focus on providing evidence of good teaching. It is important to distinguish between 'baseline' practices that would be expected in all teaching, and 'good' teaching: a scholarly practice that inspires high quality student learning and deserves to be recognised and rewarded.
- The peer review framework and processes developed in this project should complement rather than duplicate existing peer review resources. In particular, we sought to avoid overlap with the ALTC project *Peer review of online learning and teaching* led by Dr Denise Wood, which was funded at the same time as our project, but with a different intended focus and outcomes.

In developing the framework, the promotions criteria and related teaching descriptions of the five participating universities were summarised as a first step. There were broad commonalities in the aspects of teaching practice that were considered across the different institutions, but considerable differences in the specific criteria and the ways in which they were presented. The combined list (as shown in Table 1 below) was regarded as a compilation of categories that could be considered for a framework, however more detailed criteria were seen to be needed to guide reviewers and reviewees in considering the qualities of teaching that could be reviewed.

The well established peer observation of face-to-face teaching and literature associated with the broader term 'peer review' (eg Bernstein et al. 2006; Van Note Chism & Chism 2007; Bell 2005) were reviewed with a focus on the types of criteria chosen. Ongoing review included some studies of peer review in online and blended learning environments that emerged over the course of the project (Swinglehurst, Russell & Greenhalgh 2007; Bennett & Barp 2008; Bennett & Santy 2009), and findings were incorporated in the framework or protocols where relevant.

Several bodies of literature were used as starting points for more specific criteria. These included: key works that describe characteristics of good teaching which supports learning (Biggs & Tang 2007; Ramsden 2003; Prosser & Trigwell 1999); features of effective learning in online or blended learning environments (Boud & Prosser 2002; Laurillard 2002); student experiences of learning with technologies (eg Salaway, Caruso & Nelson 2007); principles of good practice derived from previous ATN evaluations of staff and student experiences of e-learning (Alexander & Golja 2007); and broader literatures on scholarly teaching and the scholarship of teaching (Trigwell 2000; Kreber & Cranton 2000; Trigwell & Shale 2004). Examples of potential criteria taken from these sources are shown in Table 1.

While these bodies of literature have informed the generation of multiple possible criteria, they do not necessarily create a coherent framework for reviewing good, scholarly teaching. It was also noted that the promotion committee members and chairs typically advise applicants to frame their application around a coherent 'story' which makes connections between the teacher's philosophy, intentions, activities, outcomes and impact, and provides evidence to support these connected claims. Considering these factors together led to the development of a broader framework underpinned by the qualities of scholarly work as originally developed by the Carnegie Foundation and described by Glassick et al. (1997).

Table 1: Examples of potential prompts for peer review

Categories of promotion criteria related to teaching from the partner universities	Qualities of good teaching and scholarly teaching	Qualities relevant to effective online and blended learning environments
◆ Currency of content ◆ Effective teaching strategies that facilitate learning ◆ Effective teaching for a diversity of students/meeting a diversity of student needs ◆ Student support, accessibility, availability for consultation ◆ Initiation/development of new subjects/units/ courses ◆ Innovation, novel approaches ◆ Effective assessment and feedback ◆ Specific focuses on university strategic priorities (eg internationalisation, flexible/online learning, work integrated learning) ◆ Leadership and management of teaching and learning	◆ Stimulation of student interest and quality of explanations ◆ Consideration of and respect for students and student learning ◆ Appropriate assessment and feedback ◆ Balancing clear goals and intellectual challenges ◆ Fostering student choice and independence ◆ Supporting students' active engagement in learning ◆ Awareness of students' perspectives and learning from students ◆ Student focus ◆ Good teaching as a scholarly activity ◆ Outcomes communicated to peers	◆ Engaging learners ◆ Acknowledging the learning context ◆ Challenging learners ◆ Providing opportunities for practice and feedback ◆ Provision of flexible access to learning opportunities and resources ◆ Awareness of students' perceptions of teaching technologies ◆ Creating opportunities for interaction between students ◆ Providing clear navigational structures, expectations and guidance ◆ Development of qualitatively different learning opportunities and innovations ◆ Appropriate blend for the context, discipline and students ◆ Support for students to learn to use new technologies

The current framework, shown in Table 2 below, is based on the principle that good teaching, whether in blended learning or more traditional environments, is a form of scholarly work. The framework is underpinned by an adaptation of the six standards of scholarly work (Glassick et al. 1997). In their original version the six standards were: clear goals, adequate preparation, appropriate methods, significant results, effective presentation and reflective critique.

Ongoing exploration found numerous links made to the standards of scholarly work in the peer review literature (eg Cobb et al. 2001; Gale 2007; Kreber & Cranton 2002; Quinlan 2002). Ward (2008) argues that scholarly criteria like those developed by Glassick et al. (1997) are important for communicating the desired scholarly standards of unpublished scholarly work to both reviewers and academics who are being reviewed. Interestingly, Ward's use of these criteria is not teaching and learning specific but could be applied to any type of scholarly activity. There are many examples of the Glassick criteria being used across differing contexts: for example, in the health sciences alone, Glanville and Houde (2004), Ruiz et al. (2009) and Ward (2008) all underline the potential value of this framework for scholarly peer review and teaching.

For our project, the wording and ordering of the standards was modified, initially to emphasise scholarly teaching and then later in response to feedback from
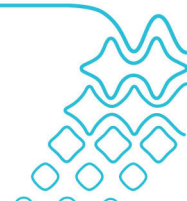
participants. In the initial development of the framework, 'effective presentation' was replaced by 'effective communication and interaction', and included in the framework before 'significant outcomes'. In the original standards, 'effective presentation' referred to the presentation and communication of scholarly work to external audiences, for example via presentations or publication. In the current framework, 'effective communication and interaction' reflects teacher–student and student–student communication in the context of the teaching and learning environment. Scholarly presentations and publications on teaching and learning are acknowledged as possible outcomes for external audiences under the criterion of 'important outcomes'.

Table 2: Scholarly peer review framework, with criteria and indicative prompts

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1. Clear goals
♦ Goals for students' learning are clear
♦ Goals are appropriate for the context and related to the needs of students
♦ There is a clear rationale for the design of the subject/learning environment, including the chosen blend of learning opportunities

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2. Current and relevant preparation
♦ Subject content is current, relevant and informed by research and/or current practice
♦ Teaching and learning practices are informed by scholarship and awareness of relevant innovations
♦ Preparation takes students' previous knowledge and experiences into account
♦ Learning resources and online sites are well structured and updated in a timely way

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3. Appropriate and effective teaching, learning and assessment methods
♦ Learning and teaching methods and assessment are aligned with learning goals and objectives
♦ Students are encouraged to see the connections between the parts of the subject and the whole, and to see how the whole relates to the broader field of study
♦ Students have opportunities to develop relevant 'generic' graduate attributes
♦ Students are encouraged to engage actively in learning
♦ Students have opportunities to interact, collaborate with and learn from others
♦ Student inquiry, creativity, problem-solving and experimentation (relevant to the discipline) are encouraged
♦ There are appropriate levels of intellectual challenge and support for students
♦ Students have opportunities for choice and independent learning
♦ Innovative or innovatively adapted methods are used appropriately to offer new opportunities for learning
♦ Methods offer flexibility to respond to students' experiences, understanding and needs, and to changing situations

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4. Effective communication and interaction
♦ Face-to-face and/or online explanations are clear
♦ Student interest and engagement are encouraged
♦ Teaching is responsive to students' understanding, ideas and progress in learning
♦ Students' communications and questions are responded to effectively and in a timely way
♦ Teaching encourages students to interact with others and discuss, compare, develop and challenge ideas
♦ Assessment expectations, criteria and standards are clearly communicated to

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students
- ♦ Feedback on students' learning is clear, effective and timely
- ♦ There is clear guidance for students on the structure of online and blended resources and the choices that are available
- ♦ There is effective co-ordination and communication with other staff teaching in the subject area

5. Important outcomes

Student outcomes:
- ♦ Students have actively engaged in the subject/learning activities
- ♦ Students have achieved intended learning goals
- ♦ There is evidence of other important or unexpected learning achievements

Other outcomes:
- ♦ Learning innovations are effective in achieving their goals
- ♦ Innovations/methods have been adapted and used by colleagues/others
- ♦ Presentations of scholarly practice have been given to peers
- ♦ Scholarly publications have been produced and recognised by peers

6. Reflection, review and improvement
- ♦ The teacher has learned from students and adapted teaching in response, both during teaching and afterwards
- ♦ Reflection has been informed by a variety of sources such as student feedback, student learning, peers and relevant literature
- ♦ Reflection and feedback have been acted on in order to improve teaching and learning

Resources and processes for conducting peer review

In addition to the framework, a range of resources and recommended protocols and guidelines were produced and trialled during the project. Resources produced in the course of the project for reviewers and reviewees include:

- protocols for formative, brief formative and summative peer reviews
- templates based on the framework for reviewees to use in planning their review and briefing reviewers
- review templates and templates that combine space for both briefing and review
- reporting templates for formative and summative reviews
- guidelines to assist reviewers to create reports for recognition and reward processes.

Examples of resources are provided in the Appendix to this report. Others are available on the project website: http://www.iml.uts.edu.au/peer-review. All template resources are made available in Word format to enable their use in and adaptation to different contexts.

Resources were also produced to assist in professional development for peer review in online and blended learning environments. These include:

- workshop outlines
- case studies
- video clips of briefings, reviews of aspects of online teaching and debriefings
- guidelines to assist in interpreting peer review reports.

Examples of these resources are also available on the project website, along with suggestions for their use.

Insights on peer review in blended learning environments

Many of the insights gained from the project are common to other peer review initiatives and are cited in the literature on peer review, however others have particular nuances related to review in online and blended learning environments. The following observations and insights have been informed by formative evaluation during the peer review phases of the project, as described above, and evaluation interviews with participants following completion of the peer reviews.

For the purpose of this report, observations that are common in the peer review literature have been summarised while observations that provide additional insights into scholarly peer review in blended learning environments are elaborated in more detail. Quotes that are included are from project participant interviews, except where otherwise indicated.

Some common principles of peer review of teaching were confirmed relatively early in the project in relation to peer review in blended learning environments (see McKenzie, Pelliccione & Parker, 2008), while others emerged later. These general principles include:

- Peer review processes need to allow for formative feedback. Participants emphasised that a peer review process should allow for feedback to the teacher whose work is being reviewed, even where there is an intention to provide evidence for promotion or other purposes.
- Teachers have a strong desire for choice and control over the peer review process. Participants expressed a need for teachers to make choices about what is peer reviewed and how the resulting evidence is used. For example, for promotion, peer review might focus on a teaching innovation or a particular component of the blended learning environment in order to provide evidence to support specific claims being made. Some participants also recommended enabling reviewees to exclude certain aspects of teaching from consideration by reviewers if the reviewee already intends to make changes. This is potentially problematic in blended learning environments as it can be difficult to separate some parts from the rest of the context.
- It is important to consider the teacher's intentions as well as their teaching performance and outcomes. Peer review should take into account the teachers' goals. These will include goals for student learning and chosen approaches to blended learning as well as other goals.
- The institutional and subject contexts need to be considered. Peer review should take into account aspects of the context which might influence how teaching and learning occur, for example class size, the role of the teacher (eg co-ordinator, lecturer), the availability of particular technologies and forms of support, and the nature of the students (eg on-campus or distance).
- Professional development and training are needed for reviewers and reviewees to develop their awareness of how to observe and review teaching, what to look for, how to interpret and use peer review frameworks and protocols, and how to create effective reports (if required).
- Briefing prior to the review and debriefing afterwards should be seen as required components of any peer review process. Formative processes should include guidance for participants in documenting and acting on review findings, and engaging in further review.
- For summative reviews for recognition and reward, professional development and guidance are needed to assist those making judgments on teaching to interpret peer review reports.

Particular observations that arose during this project related to the scholarly framework that was developed, the focus on peer review in blended learning
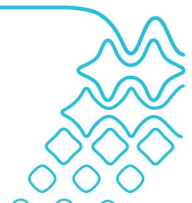
environments and the nature of a 'peer' in reviews in blended learning environments.

The value of a scholarly framework that could be used flexibly

Providing a scholarly framework for the review process was seen as important for encouraging reviewees and reviewers to adopt a broader perspective on teaching and to consider the relations between a teacher's intentions, preparation, learning and teaching activities, and outcomes. Participants varied in their perceptions of the value of the scholarly framework developed in this project. Most appreciated having a structure and criteria that would guide the review process and prompt the reviewee and reviewer to consider aspects which they may not otherwise have considered:

> *I do think having a structure that people can see [is valuable]. So if I'm wanting a peer review that I can actually look [at] and see what the structure is going to be, what I'm likely get feedback on … I think that creates a comfort for somebody, to understand what they can expect.*

> *I liked using the framework, I felt as though I didn't have to use the whole framework if I didn't want to because I really just wanted … it helped me focus on certain things. So I found that to be a really useful guide.*

A number of participants commented on the value of having detailed prompts from which they could choose:

> *It's nice to see … with these forms they've taken [a] much more detailed approach than the sorts of things we were developing … and I personally like – as a reviewer – I like the more detailed form … it gives greater clarity to the process because I think sometimes reviewers are not entirely sure what it's all about and what you're actually going to comment on until you have that initial conversation [with the reviewee]. So the ability to have this detailed type of information to give to them rather than a shorter checklist is a good thing.*

On the other hand, a few participants found that the framework provided too much detail for some reviews, particularly those that focused on reviewing aspects of a single face-to-face class or narrow aspects of teaching in an online environment. In those cases, the full framework was not seen as appropriate. A shortened version was later developed in response to this.

> *I mean one of the things we've talked about too is the possibility of giving different levels of detail … it's almost like a choose-your-own-adventure kind of option. If you have limited time for a focused review, then you may need a shorter document. So I do think a one-size-fits-all is never a good idea.*

Once participants had used the framework, feedback was generally positive on the overall structure and use of criteria based on the qualities of scholarly work.

> *The thing that I like most about the Glassick [framework] as a basic structure is that it's just like academic papers that people submit to their journals. The aim, the materials, the scientific areas. It's the same layout and so it speaks across the disciplines. They can see the parallels so it's interesting that it's a revelation for them to see teaching and learning expressed that way.* (Core team member and reviewer, team meeting)

Because it is based on recognised qualities of scholarly work (Glassick et al. 1997), the framework was seen as something that would lend itself to use for promotion and teaching awards: processes that valued scholarly teaching.
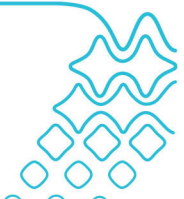
Scoping and clarifying the review focus: considering parts of a whole
The literature and other ALTC-funded projects have consistently noted the importance of pre-review preparation and briefing. The feedback from this project confirms this strongly in the contexts of online and blended learning environments. It also emphasises the critical importance of scoping the review and clarifying the focus.

In the early peer review trials, participants gave feedback on the importance of clarifying the desired focus of the peer review before the review commenced. This was important for both reviewers and reviewees, but for different reasons. For reviewees, clarifying the focus prior to the review could be an important catalyst for reflection.

> *Those conversations before and after are more valuable than the in-between … and I think the talking to them is really important, more than anything … And that's where people start to think about, well, this is why I'm actually doing it like this, it mightn't be clear to you but it's clear in my head this is why I'm doing it.*

This was reiterated by a number of participants in the interviews, speaking from the perspectives of the reviewer and reviewee:

> *… [re] the person who is seeking the peer review process, they need to have some info or some clarity about what it is they are wanting feedback on.*

Common observations were that online and blended learning environments are complex, and peer review involves making choices about what to observe.

> *If you don't know what you're going it to look at, it's overwhelming because there's so much you could reflect on.*

Even when the focus was quite specific, it was often not possible to review everything and a sampling approach needed to be taken. This was particularly the case for reviews focused on discussion forums or online collaborative work involving multiple student groups.

> *Work-in-progress: peer feedback – 84 posts! I checked random posts and comments – not absolutely all.* (reviewer, institutional team meeting notes)

However, a number of reviewers also noted that it was not possible to review one aspect without considering how it related to other aspects, even when a particular focus was chosen. This seemed to be both a strength of the scholarly peer review process used in the project and a potential weakness in that it made it more difficult to put meaningful boundaries around what would be reviewed.

> *The focus I'm taking in [the teacher's subject] is around a particular assessment item. And it's actually taking me everywhere through her subject. And that's where we were saying yesterday 'now where will we stop?' … So I think that is the sort of example of where we need to say 'ok, that is enough'.*

> *Maybe we had given each other too big a topic … although we were trying to focus on particular aspects of our subject, it's difficult not to try and cover the whole subject … like for hers was online tests so if you cover the lecture material they've provided for those online tests, you can't really look at the online tests in isolation … I think that that might help, being very, very specific – and definitely not being too broad.*

Some reviewers also noted the limitations of reviewing some aspects of blended learning environments without having access to other aspects. This was noticeable

in situations where face-to-face guidance and support were provided for online activities.

> *I mean it is tricky as we've talked about in other contexts too, to bound something that's dealing with a blended learning context. So even though in this case I was asked to review a very specific part of the subject, not the entire subject, but to understand that one part and where it fits in the whole, you have to look at the whole. Then because you're dealing with a situation – which in this case was largely online but there were still parts that were face-to-face that I couldn't recreate … Then, even having access to most of the material online, knowing how to navigate it in a short period of time was really tricky.*

Also, unlike timetabled face-to-face classes (but not recordings of classes), online environments offer the potential for an open-ended observation timeframe, and time needs to be managed.

> *You need, you know, a decent amount of time for the initial conversation and you need a decent amount of time to actually go in and review what they're asking you to look at, even if it's really focused. But you need to go in more than once … For example, with [teacher], I went to her [LMS] website at least three times and looked at different things at different times but then had a holistic look … I think you need different snapshots at different times.*

Overall, the value of following a process that involved scoping the review, briefing and debriefing was reinforced. Participants who had taken a more informal approach also reflected on the usefulness of this in hindsight.

> *I think initially when we all got together I really liked the idea of the process: this is a valuable way to actually approach this. You know how we had the guidelines of, you know, it's a good idea to actually sit down, document what you want reviewed, then perhaps meet beforehand and meet afterwards and I think that we would have all got much more out of it if we'd actually followed that process … The process is even much more valuable I think than anything.*

Who is a useful 'peer' for reviews in blended learning environments?
The choice of a suitable peer has been highlighted as one of the significant decisions in many studies of peer review, including the ALTC *Peer review of teaching in Australian Higher Education* project (Harris et al. 2008b). Trust between peers is commonly reported in the literature and has emerged in other projects, however there is considerable variability in whether peers are at the same level or more senior, from the same discipline or others, or whether they include people with institutional responsibility for teaching and learning.

For reviews in online and blended learning environments, there is the added complexity of the level of experience of the peer with teaching in these environments and, in some cases, engaging with teaching and learning innovations. A number of participants, particularly those who were relatively new to teaching or newer to teaching in blended learning environments, saw value in feedback from a 'peer' with more experience and expertise who could offer them advice. In some cases this meant a reviewer from an academic development background who was trusted by the reviewee. In other cases it was someone who was known by others to have a particular understanding of blended learning environments and their uses.

> *I wished to be reviewed on this project as I feel my reviewer has so much experience, and I felt that her expertise and experience could only assist me with my future strategies for student engagement and positive feedback.*
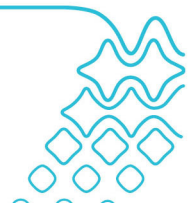
What's interesting in that is that the approaches that I've been getting [to be a reviewer] have been from people outside my faculty … So it has less to do with the discipline and more to do with – in both those cases it was about – a recognised commitment to learning and teaching scholarship and an understanding of [a] blended learning environment … Sort of saying, 'oh yes, you understand the day-to-day context properly'.

Whereas peer review often involves peers within a discipline, in the case of blended learning environments a particularly useful peer could also be someone from another discipline with similar levels of experience in blended learning environments.

It's very interesting to have someone outside a specialty. You have all sorts of questions to make, you think. People from other professions see things differently.

Being out of your context and out of your discipline zone there, it means you're really focused on the teaching and not the content, which is great. But it also can be challenging because you don't know what's appropriate within that discipline.

Two participants decided to engage in cross-disciplinary review because of similarities in their contexts. Both were teaching large enrolment subjects with a substantial component of online interaction and collaboration expected from students, in teaching departments where most subjects had much less online presence. They experienced peer review as affirming aspects of what they were doing and offering formative feedback but also as a way of evidencing and positioning innovative practice in contexts where what they were doing was not well understood by others.

I think it's being innovative … in both our cases we're dealing with environments that are unfamiliar to most of the people that are in charge; the leadership. Both of us were trying to work in these blended environments and had an appreciation of the affordances of those environments … In that context, it was certainly valuable being a reviewer from outside the faculty because I didn't know the politics … the similarities in our situations was not something that came up until well into the review process … But it did then alert both of us to the fact that what we were doing is not just about it being formative for our purposes, but that it's about positioning ourselves and positioning these kinds of approaches.

This experience of the benefits of peer review in blended learning environments is in line with Bennett and Santy's (2009) observations that peer review provides vital "mutual support in the often isolated process of teaching online" (p404). Collaboration is invaluable not just for novice online teachers working with those who are more experienced but also equally for early-adopting or pioneering teachers who are able to gain insights into and learn from the practices of others.

The experiences of some innovators also highlight another issue for peer reviews that focus on new and innovative learning and teaching approaches. Although innovation and innovative teaching approaches are included in the promotions criteria of the partner institutions, they are not always recognised or valued by more conservative colleagues of the innovators. In these cases, a reviewer who has an interest in the innovation but is not an immediate colleague of the innovator is likely to be more appropriate as a 'peer', whether for formative or summative reviews.

The use of peer review for academic promotion

The use of peer review for promotion was a significant intended focus of the project, and this was discussed with institutional team members when they agreed to participate and at team meetings. However, while almost all project participants
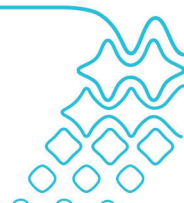
were positive about the value of peer review for gaining insights into, reflecting on and improving teaching, there were differing opinions about its use and value for promotion.

At the time of completion of the project, one participant reported having used peer review evidence for promotion in the past, one had used evidence from this project for a successful teaching award application and two participants had cited involvement in peer review. One participant intended to use peer review evidence for promotion in the near future and about half of the other interviewed participants reported that they would use peer review evidence for promotion. However, participants expressed preferences for using evidence in different ways and for different reasons.

One participant who had used peer review evidence from this project reported several benefits of peer review for developing applications for awards or promotion. Documenting the peer review and using the framework had provided a language and way of articulating innovations, and the peer review itself provided confirming evidence of the impact of innovations and identified challenges that could be addressed and documented.

> *One of the things that became really clear is the process of being engaged in the peer review and writing. So articulating that, documenting it on paper meant that it was a lot easier to show evidence of impact than it has been in the past … you can say somebody else has seen it. Similarly then, if you can point out … someone flagged that these were challenges and this is how I addressed it, you also have that language there … It's really important because a lot of times that is where – I speak only for myself – but that's where I struggle. There's a lot that's, like, round in my head but actually articulating that and putting that into words is really tricky.*

Several other participants perceived that there was value in being able to demonstrate that they had engaged in peer review and used it to improve teaching. Peer review in this case was seen as evidence of scholarly teaching or teaching commitment.

> *I think it's a demonstration of your commitment to your teaching, isn't it? To be able to include that within your documentation as to different areas of your role. So I would certainly be interested in using it.*

Some participants reported that they would state that they had engaged in peer review, but were more likely to use evidence from students. This was particularly the case for three participants from educational disciplines who sought feedback from students beyond the standardised university surveys.

> *I'd be probably more likely to say I've had these peer reviews done but less likely to use them as an explicit example. I would be more likely to use the specialised or the customised feedback from students, you know, giving quotes and that sort of thing as examples.*

Others saw peer review as a way to add a different perspective to the views of students. One example came from a teacher who used online approaches to engage and intellectually challenge students who were used to more traditional teaching approaches. This participant had used peer review to gain insights into how to improve student perceptions, and also to provide evidence of the value of these approaches in applications for recognition:

> *One example I can think of was a course that was taught purely online. When you actually looked at the course evaluation data, the feedback from students on that, it was given not a very positive view from the students. But when you actually analysed what*
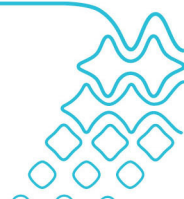
the students were actually doing, when you went online and actually did a critique of what they were doing, there wasn't a match with what they said they did, in the [student feedback] data. So an external person reviewing it could actually highlight that and so for that staff member they could then in their application for promotion, could actually argue that this data indicates that they are doing x, y, z. This review identified that they saw this learning and these outcomes and it didn't match what the students' perception was.

One participant saw value in peer review of teaching as a way of balancing evidence for teaching and research.

I would consider including it [for promotion], yes. Whether the person or the academic review board would care to see it, I don't know … I'm only new to this and research I'm very new to. I see so much emphasis put on research output and not so much put on teaching output … Personally I think this would be a great document to try and weight those – balance those scales a little bit better.

Other participants were in favour of the use of peer review for promotion and perceived that committees would value the evidence, provided they were aware that the process was sound and that peers had considered appropriate aspects of teaching.

This type of peer review will have value for external/promotion committees when they know what the process has been … evidence provided through a sound and structured process that has considered appropriate things will make a stronger case. However, major issues will emerge if peer review is made compulsory.

Concerns about the possibility of compulsory peer review were noted by a number of peer review and workshop participants. There appeared to be little or no support among participants for peer review of teaching becoming compulsory for promotion. A number of concerns were expressed in relation to this possibility, including that it might make peer reviews less valid, as teachers might simply choose their best subject for review, or could undermine their formative value if reviewers became reluctant to give critical feedback.

I think it's very important, if there's a recommendation for including it [compulsory peer review] for promotion, … that the focus is on improving teaching as a result of peer review, rather than just getting a recommendation from somebody. One concern is this … it's easy to get somebody to say good things about us, if it is in the context of promotion … But if I'm doing it [providing feedback] to improve their teaching, then I'm quite happy to be critical. So that is one problem.

While independent peer reviews might address the issue of validity, participants were of the view that peer review comments needed to be made available to the teacher who was reviewed, to inform and improve teaching. It was seen as important that the reviewee had access to and ownership of the review, rather than it being something that was done to them independently and confidentially for promotion committee members.

I think it's really useful to have a short document that allows you to summarise all of these things for both of those purposes [formative and summative] … There are always concerns in using documents, from the colleagues I've spoken to, in terms of their confidentiality. So it's about the ownership of it. But increasingly my colleagues are talking about wanting to have this sort of evidence for their own reflection and so forth and for it to be taken seriously at a university level for promotion. So I think it would be looked on very favourably … when you're saying confidentiality issues, if it was going in an application for promotion, for example, if you were able to attach it to your application. If it would just go to the people who were reviewing the application, they have got concerns … So they're differentiating very strongly between the formative and the
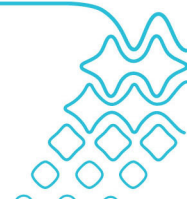
summative and then saying that that summative has to be in control of the person.
(reviewer & reviewee)

A few institutional team members and some workshop participants drew parallels with student feedback that was once sought voluntarily by teachers but is now compulsory for promotion in all of the partner institutions. There was a strong minority concern that peer review remain a voluntary activity rather than becoming 'institutionalised' as a requirement.

When good ideas like this and useful ideas like this [peer review] become institutionalised, they become abused, if you like, by the administration … I strongly believe that it is very useful and helps us to improve the practice but there's always a danger that can be abused as a big brother watching what we do and maintaining the line between the two is very important because it changes the nature of it and it becomes a bureaucratic hurdle.

Synthesising these different perspectives, the existing literature referred to earlier and the work of other ALTC peer review projects, it becomes apparent that there could be a number of approaches to using scholarly peer review to inform promotion. These range from indirect approaches to approaches that recognise peer review, and this range is flexible compared to approaches that are prescriptive and mandated. Table 3 shows a summary of some possible approaches, from formative and indirect to summative and mandated.

Formative indirect approaches to using peer review of teaching for promotion
In purely formative approaches, promotions policies might not make specific reference to peer review of teaching, or might mention it in the context of evidence for professional development. However, the institution would have formative peer review processes in place, for example in foundations programs and other professional development contexts.

Table 3: Possible approaches to using peer review evidence for promotion

	Formative indirect	Summative flexible	Summative mandated
Relation between peer review evidence and promotion	Indirect	Voluntary	Required
How is peer review evidence used?	Optional citing of evidence in application	Optional provision of documentation with application	Required provision of documentation with application
What and how do peers review?	Direct observation of aspects of teaching chosen by the teacher	Direct observation of aspects of teaching chosen by the teacher, or Direct observation of specific aspects of teaching to illustrate specific criteria	Review of artefacts such as teaching portfolios provided by the teacher
How are peers chosen?	By the teacher	By the teacher, possibly from a reviewer pool	By the teacher from a pool and/or assigned independently
Who has access to the review?	The teacher, and others if the	The teacher, and others if the teacher	The teacher and committee
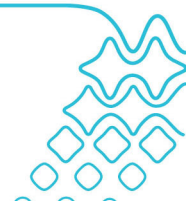
	teacher chooses	chooses	members, or Confidential to committee members

Peer review in these contexts may have indirect benefits for promotion, as formative engagement over a period of time may build teachers' capacity to: reflect on their goals for students' learning; describe the teaching and learning methods that they use to enable students to achieve these goals; and gain different perspectives from peers and use these insights to make improvements. These capacities are likely to enable teachers to make more coherent and clearly articulated cases for their teaching and learning achievements. In their applications, teachers might quote from peer evidence or describe improvements made in response to peer review.

An advantage of formative approaches is that they focus on the value of peer review for improving teaching and learning, and retain the features of trust and teacher ownership that are typically valued by academics, including most participants in this project. A disadvantage is that an absence of explicit mention of peer review in criteria or guidelines for promotion may signify to academics that it is not valued.

Summative flexible approaches to using peer review of teaching
In these approaches, there would be an expectation that teachers would engage in and respond to peer review of teaching, and peer review would be explicitly recognised in promotions criteria and/or requirements. However, teachers would have choices about, for example:

- whether or not to include peer review evidence with their applications
- what aspects of teaching are reviewed
- who their peer reviewers might be.

At one end of this flexible spectrum, teachers may simply be expected to indicate that they have engaged in and responded to peer review over time, as evidence of scholarly teaching or continuing teaching development. A peer reviewer or supervisor may need to confirm that review and subsequent action have occurred but the provision of actual review evidence could be voluntary. At the other end of the spectrum, teachers who seek to put substantial weight on teaching as part of their promotion application may be expected to provide evidence of peer review but be able to choose one or more reviewer(s) and/or what is reviewed.

An advantage of allowing flexibility for teachers is that it may assist in retaining a focus on the formative use of peer review and a sense of trust and ownership. Trust and ownership of the review feedback seem important for reviews that look inside a teacher's online subject site as the reviewer can potentially gain access to far more evidence than might be available in classroom observation. An expectation of peer review, but not a requirement, is still likely to encourage teachers to provide peer review evidence and create the perception that such evidence is valued.

From the perspective of committee members, it would be desirable for flexible approaches to include some common elements to assist in the evaluation of the evidence. These elements might include the use of a common framework that allows for different teaching contexts, and/or the use of a common reporting format if peer review evidence is provided. The scholarly framework and the example summative report template developed in this project could be used.

A disadvantage of allowing flexibility in the choice of reviewers is the concern commonly expressed by committee members that the quality of peer review

evidence will be undermined by academic colleagues giving each other favourable reviews that do not help the committee to make valid judgments. From this perspective, it might be desirable for there to be some limitations on the choice of reviewers. This could involve requiring that reviewers be chosen from a pool of people who have engaged in professional development as reviewers, or enabling applicants to freely choose one reviewer while a second is chosen from a pool. As noted in the literature and other projects, one challenge with this process is ensuring that there are sufficient reviewers in the pool so that these academics do not become overloaded with peer reviews. In regard to teaching and learning in blended learning environments, a second challenge is ensuring that the pool includes academics who are able to provide informed and appropriate reviews of teaching and learning innovations in relation to a teacher's learning goals, students and context.

Summative mandated approaches to using peer review of teaching
In these approaches, peer review evidence is required for promotion, or required if applicants are claiming a high level or weighting of teaching and related achievement. Mandated approaches often require the use of trained reviewers from approved reviewer pools and/or external independent reviewers (see for example Crisp et al. 2009). In order not to undermine formative peer review processes that involve direct peer observation of face-to-face or online teaching and learning, reviews may be conducted on artefacts such as teaching portfolios rather than on direct evidence. The review process then becomes similar to the process undertaken by committee members, with the exception that reviewers may be required to comment on the level of evidence in teaching artefacts but not make judgments in relation to promotion.

A potential advantage of mandated approaches is that committee members would receive consistent and credible peer review evidence about promotion applicants. Disadvantages are that the process needs to be effectively and consistently administered and sufficient trained reviewers available. Also, reviews of teaching artefacts may not provide as much insight into the applicants' teaching and their students' learning as reviews that, although voluntary, are informed by direct observations made in practice.

To some extent the distinction between formative/flexible and mandated approaches has parallels with the distinction between the 'theory x' and 'theory y' views of teaching described by Biggs (1993). In 'theory x' of peer review, academics are seen as trustworthy and as behaving with a high level of academic integrity. Peer reviews can be voluntary and owned by teachers but still seen as credible sources of insight and evidence for promotion, subject to the quality and usefulness of the information that they contain. The academic judgment of committee members should also be trusted, as it is now with academic references, to detect occasional reviews that are less than credible or useful. In 'theory y' of peer review, academics are seen as 'gamers' who will collude with their peers in high stakes assessment situations such as promotion. There is therefore a perceived need for peer reviews for promotion to be independently conducted and externally controlled in order to be seen as credible sources of evidence. Just as with students, a few academics may behave in accordance with theory y, but a broadbrush application of theory y assumptions can have the unintended consequence of undermining actual theory x behaviour.

An appropriate peer review scheme for promotion needs to strike a careful balance between formative and summative purposes. As other ALTC peer review projects have noted, different balances and ways of using peer review evidence will be appropriate in different institutional contexts.
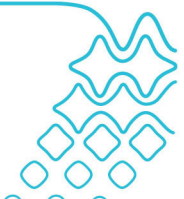
5.0 Evaluation approach and findings

The overall evaluation strategy for the project included formative evaluation within the action learning approach that was used to develop and refine the project deliverables, and summative evaluation based on interviews with participants and document analysis. These processes aimed to focus on four levels:

1. Useability of the resources and processes: this focused on how readily peer reviewers could use the framework and protocols to do peer reviews in different disciplines and blended contexts, and how feasible it is to peer review across institutions. Evaluation methods at this level included discussion in team meetings as part of the iterations of resource development, document analysis of peer review reports, interviews with peer reviewers and reviewees, feedback from workshops, and discussion within institutional and cross-institutional team meetings. Evaluation at the level of useability also focused on processes used in the project for communication and resource development.

2. Participant reaction and satisfaction: this focused on the satisfaction of project participants – reviewers and reviewees – with the processes and resources. Evaluation methods at this level included interviews with peer reviewers and reviewees and discussions within institutional and cross-institutional team meetings.

3. Learning: this focused on what peer reviewers and reviewees learned from the process including what participants learned from being reviewers as well as reviewees, what they learned for their own teaching and any changes they made as a result, and what they learned about using peer review. Evaluation methods used at this level included interviews with project participants, peer review documentation and notes from team meetings.

4. Impact: the intent at this level was to evaluate any progress made in embedding peer review in institutions, including changes that have been made to institutional policies and practices relating to academic promotion, performance processes, teaching recognition and reward. Evaluation methods at this level focus on documentation of institutional activities and processes.

The primarily formative use of the peer review process so far has meant that there have been limited opportunities for further feedback from supervisors and committee members. Peer review evidence from the project was used for one participant's successful internal teaching award and ALTC citation applications. Further feedback with this focus will be sought as the process becomes more widely used.

General feedback on the concepts underpinning the framework and the idea of peer review has been sought from committee members informally and in the context of workshops that prepare applicants for promotion. Some informal comments have related to the value of the scholarly framework for helping applicants to frame coherent applications. Peer review is generally seen as desirable for triangulation of evidence, provided the peers were sufficiently credible. One view expressed by a committee chair, and agreed by some others, is that peer review would be useful for people who are claiming major or outstanding contributions, or higher weightings for teaching in their applications. For those claiming satisfactory teaching, student feedback evidence may be sufficient and save the reviewer time that would otherwise be spent compiling a report.

Feedback from the ATN Deputy Vice-Chancellors (Academic) group was sought at a joint meeting of this group and the ATN Teaching and Learning Committee members in early 2009. The framework and progress of the project were briefly outlined. The group agreed with the distinction made in the project between
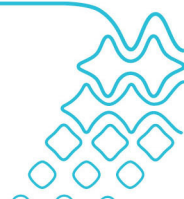
evidence of 'minimum standards' and evidence that would be useful for promotion, and the focus on the latter. The concept of underpinning the framework development with the qualities of scholarly work was generally regarded favourably, provided differences between scholarly teaching and scholarship in teaching were acknowledged. The group also favoured having a register of reviewers who would be able to provide reports. There was some interest from the group in whether the framework or other outcomes from the project could be useful for peer review of academic standards, with standards of content, assessment design and outcomes being of particular interest.

Useability of and participant satisfaction with project resources and processes

As noted above, development of the peer review framework, process and resources occurred iteratively over several cycles of peer review and feedback. It also involved many discussions within the core and institutional teams. The current versions that are included in this report or on the project website represent the outcomes of a series of modifications. This section of the report provides some brief examples to indicate the flavour of the feedback over time.

The framework
Discussions of the scholarly framework over a number of team meetings resulted in changes to the category wording, prompts and guidance, with the following being typical of comments that resulted in change:

> *Looking back through the records from our people … where we've had some discussions around the terminology. We decided that 'important outcomes' was better than 'significant results' because some of the statisticians said 'but how do you know whether it's significant?'*

> *The framework is manageable and overall was usable. Some team members thought Category 3 (Appropriate Methods and their Application) needed more guidance. Version 5 of the Framework has some additional annotations to encourage selection of the relevant aspects for each review.* (Cross-institutional meeting notes 2008)

Templates and resources
As was noted in the methodology, there were also several iterations of the templates and resources. In an early iteration, reviewees were provided with a briefing template that contained the criteria and space for them to add their comments for the reviewer. Reviewers then had a separate template, however some were unclear about the use of the different templates and several stated a preference for making notes directly into the same template that the reviewee had used.

> *I did think it would have been really useful to have had it electronically, to automate it ... What I ended up doing was I took my laptop with me and I had the template open, but I couldn't take notes into it. It just didn't seem a useful structure for me at the time, so I ended up just taking a Word document and then cutting and pasting back in. So maybe that was in part [that] the briefing session we had back here didn't take us through the template in the detail that perhaps we needed.*

Several versions of the templates were developed in response, including some that had space for both the reviewee's briefing points and reviewer comments. These were trialled in workshops and appeared easier for reviewers to use. An example is provided in the Appendix to this report.
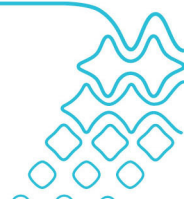
There were also local adaptations of the templates. In one institutional group, in which peer review spread beyond the original pair, the template was adapted to include both checklists and open-ended comments.

> *In our group we made some revisions to that template so there was a strong sense of ownership within the group … So we did our peer review for you using all the documents you provided and subsequent to that we set up a peer review process in our school, and as a result of that we took on board ideas from a number of different templates and merged them. One of the things that I found difficult was the template that we were using for your project. One of the things that our staff wanted were check boxes … They wanted check boxes and the open-ended responses.*

A later report noted that the group had moved away from the checklists again to a more informal process.

The need for examples and models
Feedback, particularly from reviewers who were new to teaching, indicated a strong need for examples to support them in how best to make use of the framework and templates. Some examples were made available after the first round of peer review, but some participants wanted more examples and examples provided in different ways.

> *I know they do have examples in that documentation but I think there needs to be broader types of examples. So for example, just more of a theoretical subject and then examples from a clinical subject, which was what mine was. Just to have, you know, ideas about what to write … I thought, having read what [the teacher] wrote, I thought that was really good. It gave me a good idea of how I should tackle it based on what she had written.*

> *I'd probably shut down if someone handed me a 20-page document. I'm not going to read it. I just don't do that. So I think that is sort of a shutdown straight away. I just go, you've got to be kidding. I'm not going to read that because I'm just too busy … online, tutorials or something like … then you could have little links to, you know, 'show me example links', and you can go if you're not sure about what to write, you go back and go, 'oh yeah, okay!' It just doesn't seem as daunting.*

In some cases, core team members provided modelling and support for the process as intended. This included 'translation' of the early framework language and processes as appropriate for the needs of participants.

> *They're very much discipline-based people … I suppose that's what I see my role as, is translating for them.*

While later versions of the framework have been adapted in an attempt to use less 'educational jargon', there seems a necessary balance between making the framework user-friendly and enabling it to act as a resource for broadening awareness more generally. In addition to examples provided by the project, an effective approach to modelling was for less experienced reviewers to be reviewed first by someone who was more experienced in learning and teaching in the discipline.

> *I think the issue was that I'm a clinical person and it was all wordy, it's almost gobbledygook stuff, that administrative stuff [on a protocol version], that terminology … I think that was what I found to be most difficult … whereas she [reviewer] actually does have [an educational qualification]. I think she found it a lot easier. So when I read what she had written about mine, it did give me more focus or more ideas about what I should be writing as well. But I found that very difficult.*
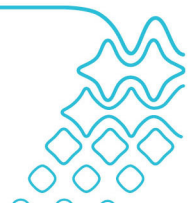
In hindsight, these observations indicate both a strength and a weakness of the project development model of engaging institutional team members in pilot testing and feedback. A strength was that it enabled testing of draft resources with a broad diversity of teachers, enabling broader feedback than might otherwise have been possible. However, a weakness was that some of the resulting peer reviews were not as insightful as they could have been or were incomplete.

The feedback reinforced the common finding in the literature that examples and professional development for reviewees and reviewers are necessary, particularly for those who have not previously engaged in teaching and learning development or peer review.

Time
A further observation on useability of the process and resources related to the time taken to do reviews. This is a difficult challenge for peer review in blended learning environments because of the relations between the parts and the whole of the context (noted earlier). Some reviewers noted spending more than a day on the review process itself, in addition to time taken for briefing and debriefing. A common time estimate was that the review process and documentation took about half a day.

I thought, oh my goodness, I could be here for four years writing this … yeah. I reckon it probably took me four of five hours to get my head around [it] and produce that document.

For others, the time taken to do the review was seen as manageable, but organising meetings for briefing and debriefing was more challenging.

The issue really is the other competing priorities to actually get to that … Like I would do my bit and then she's been busy with lots of other activities, so it wasn't something that – the actual physical time didn't take very long.

Some reviewers, particularly those who focused on face-to-face classes or narrow aspects of online teaching, found the process less time consuming, with a trade-off being the comprehensiveness of the review and its usefulness for the reviewee or for wider purposes.

Development of case studies
In the early stages, the original plan for the project involved participants creating case studies that could be used for professional development for future peer reviewers and reviewees. This presupposed that the initial team members would describe their subject contexts and document their peer reviews in ways that would effectively communicate the process to others. This proved to be one of the least successful aspects of the project.

Time and competing priorities were major issues for participants.

They're all saying, we're really interested and I know that they got well under way quite a time back … but it hasn't really come to them writing anything down or completing things.

They're both, again, people that are very rarely here and zooming around all over the place. So they're finding [it] a bit of a challenge to get to that last debrief and documentation.

Core team members also perceived that some participants had difficulty in writing the peer reviews, or saw little value in written documentation compared to conversation and verbal feedback.
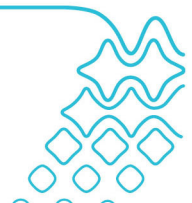
A further issue was that some of the initial templates were designed to facilitate the development of case studies alongside the completion of peer reviews in so far as including additional questions about the context and requiring participants to complete briefing and review templates separately. In hindsight, this was a mistake. It became evident that participants (if not most) did not necessarily distinguish between the case study requirements and conducting the peer review. A better process may have been to encourage participants to complete peer reviews, and then provide additional information after the event.

Learning from peer review, as experienced by participants

Participants reported a range of learning outcomes from participating in peer reviews within the project. This section outlines the main categories of outcomes, including personal outcomes, for the teachers, and changes in teaching practices.

Gaining insights into teaching

A number of reviewees commented on the value of the peer review process for helping them to gain insights into what was working well in their teaching, as well as gaining another perspective or opinion on what was happening.

> *That was very positive – to know that what you thought you were doing well, you actually are doing well. I thought that was a good aspect. Also letting you iron out any little things that they might say, [eg] 'You just need to clarify that a little bit for the students. They might get confused'. Because you think you're explaining things well and sometimes they – you know when you look at the other side of things they go, 'Actually, I don't really understand that'. So that was good. That was good!*

> *I mean that's the point of the whole process I'm sure, to identify where you can improve. But every now and then I thought, wow, we don't do that so well. I didn't realise how that wasn't working.*

For some reviewees, a major benefit was in gaining feedback on and insights into issues that were challenging, particularly when the reviewee had difficulty interpreting what was happening or coming up with suggestions for change.

> *So those things where I struggled to work out how to make changes or you have a sense that there's something that isn't quite right, but you can't put your finger on it. So having somebody else look at [something] when you say, 'I'm not quite sure, is this right?' … and design and development … it's been a wonderful foil for ongoing reflection about what's happening.*

> *I chose this subject because I considered it to be the most broken of all the classes I am teaching this semester. I wouldn't gain so much from [a review of] a class that I had taught for a lengthier period and [where I] was already receiving good feedback and [student feedback] scores. This was my biggest challenge.*

Repeated peer feedback was seen as valuable for making progressive improvements, rather than trying to do everything at once.

> *From the perspective of peer review, yeah, just something that's reasonably straightforward that you can have someone sit in with you a couple of times a year and give you some feedback … just two or three lines on these key criteria that you go away and reflect on and then you summarise it back to someone to say, 'look, this is what I've taken from it and this is what I think I can do next', and just sort of keep it like that, really small. You know, chew the elephant one bite at a time.*

The conversations about teaching that occurred as part of the peer review process were seen as particularly important for enabling new insights.
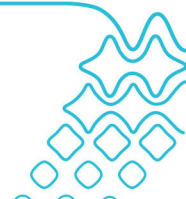
Reflecting and developing skills as a scholarly teacher
Peer review was reported as informing reflection on teaching by the reviewers as well as the reviewees. Reviewers had the opportunity to experience ways in which their peers' practices differed from their own.

You know, apart from building the relationship, I also look at how other people are teaching, other strategies, and think, oh gee, I wonder how that would work in [subject], or how that will work with my students and, yeah, there's that, there's always that two-way because it causes you to reflect on your own teaching and I think that's probably one of the most powerful things of peer review for the individual doing the reviewing … it forces you to think about your own teaching.

Bennett and Barp (2008) similarly noted that online 'observers' felt they learnt more in this role.

Going beyond reflection on teaching, some participants also saw wider personal benefits of peer review for their professional development:

I think developing the skills and just critical self-reflection [are benefits]. You have to look [at] your own personal and professional skills limitations. That is always something that I think that we should do more often. I thought that as a [practitioner] as well. I think that process is fantastic. I think keeping open to criticism and that sort of scholarship approach of 'this is my work, this is what I do'. What do people think of that? I think that's a healthy headset to keep. Then, from a pragmatic point of view, having somebody to help you review the course and sort of the way you're doing it. From that, being able to speak critically and say, 'okay, maybe we can do it differently, or we need to change that'.

Building confidence
Although online and blended learning environments have now become commonplace, many teachers feel inexperienced or lack confidence in teaching in these environments. Several participants reported that peer review had helped them to feel more confident about what they were doing, as well as to gain insights into what to do next.

This made me feel more confident I think with that sort of thing [teaching in blended learning environments] … it's confidence, and knowing that I had no idea sometimes whether what I was doing online was of any [use and] where to go next with it [I] suppose. So I suppose it's the opening up of the doors to say, 'well, yeah, you're on the right track'.

For some who were innovators in the field, greater confidence came from having an external perspective that validated their innovative ideas while giving them food for reflection.

I have found it invaluable because it's provided me with a real sense of empowerment and that's why I really use that word. Because until going through that review process I never felt confident enough to actually stand up in battles that I'd been fighting. To say that I think that this is a strong subject. I think that the approach that I'm taking is appropriate and it was incredibly informative to be able to see that what I'm doing is quite strong … it's a wonderful – it's been a wonderful foil for ongoing reflection about what's happening.

Again, conversations about teaching were important for building confidence. Despite comments about peer review being time consuming, several pairs reported spending extended periods of time in conversations that explored options for online learning and how student learning, engagement and independence might be encouraged.
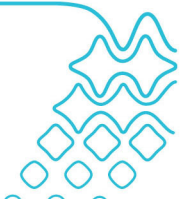
Benefits for us? It's always better in a way to have two people talking about the ways of teaching and assessing and learning. What are good things? What are bad things? I think collaboration with another person always has benefits because you see things from their perspective as well. It helps the whole learning and teaching process.

Planning changes to teaching practice
As a result of the peer review, participants reported planning and making a range of changes to their teaching style and subjects. Common changes focused on guidance for students, online discussions and engagement, and assessment.

Increased clarity and guidance for students was often mentioned, with reviewees noting examples such as: tracking of individual student progress; providing more documentation to help a diverse student cohort; providing more guidance on review; and reading prior to practical sessions.

Improvements in online sites often focused on a combination of increasing guidance for students, encouraging more student engagement and more efficient management by the teacher.

As most of [the reviewer's] unit is online, she was very good and methodical about making sure that all suggestions were making the unit much clearer … It might be an idea for the unit coordinator to make sure that at the end of each chapter/topic that there be a summary to make sure that the relevance of each section to unit outlines and real life [practice] be pointed out … The use of the FAQs was also noted, but as [the reviewer] suggested, it might be better to use the Discussion Board site in order for students to discuss with each other and with the lecturer the points of difficulty/interest. I also agree with [the reviewer] in that it would stop a lot of repetitive emails that the lecturer receives.

Other improvements included greater encouragement for students to use online resources and changes to online discussions to empower students to take greater responsibility. Some teachers who sought to improve online engagement found that this had flow-on effects to other aspects of the subject.

Yes, it was the discussion, the online discussions, [that] were the main focus for the review. Although that was the main focus but I discovered that you needed the whole subject anyway to start with because you had to anchor or actually put the – you had to put the thing that you were having reviewed in context, but … the main thing was the discussion, yeah … well, I fed them [the review comments] back into the subject … it's very useful to do this … not sure about the feedback from students because now I've been changing and developing things it just worries me a little bit [that the changes may not always align with student feedback].

In relation to face-to-face classes, planned or reported improvements included encouraging more classroom discussion, independent thinking among students, challenges to their knowledge and strategies to keep students engaged (even those at the back of the class). There were also examples of changes to lectures including reducing content, changing texts and integrating more visual elements.

Changes to assessment and guidance on assessment were implemented improvements mentioned by several participants. These included changes to online quizzes to include more practical examples and better feedback to students. Some participants also clarified assessment documentation and provided online model responses while one decided to incorporate student peer review.

Other reported benefits
The peer review framework was developed to be flexible enough for use across different types of blended learning environments for formative and some summative
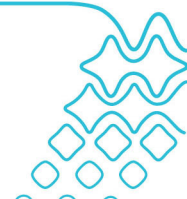
peer review. We did not anticipate some of the wider uses that occurred in the project. One of these was the use of the framework to review subject briefing meetings for casual academics. The participants involved were colleagues from a department that had previously used peer review for subject improvement and now chose to use it to improve their subject team leadership practice. Participants learned from both being reviewed and from reviewing:

> As soon as you review somebody else you have to review yourself … sit in and watch [a teacher] facilitate a meeting when two days later I have to facilitate one of my own. You look at somebody else's style and it makes you sit and think, as you said, think about process, [ask] 'what is actually going on here? Am I addressing these issues when I'm working with my team?'

Another unexpected use was for subject 'succession planning'. In two cases, the reviewee was about to stop teaching a subject and pass it, or a new version, on to someone else. In one case, the teacher was about to change universities and an explicit aim of the peer review was to assist the person who was going to take over.

> Overall, I am very happy with the critique of the unit and have found it to be very useful. I will pass these suggestions on to the person who will be taking over the subject.

Another participant engaged in several rounds of peer review on a subject and made improvements over time. The subject was about to be taught by someone else while the teacher was on leave and then replaced by a similar subject as part of an overall course renewal process. The peer review was seen as providing guidance for the new teacher who was to take over temporarily and for the reviewee in developing the new subject:

> One of the things that I also had in the back of my mind was the amazing value of my peer review, which continues to serve a purpose because I now have to write an entirely new subject. So [this subject] will not exist anymore but a new subject will exist. I am now making an argument that, really, given the intensity of the reviews and the positive outcome of these reviews, it doesn't really need to change … where it sounded like the biggest clarifications need to come is in terms of the structures. It won't be me teaching it next semester anyway … I have a completely new somebody who'll have to do it … I'll be away … So this documentation is going to become really important as a way of helping her to know these are the intentions and this is what it is.

Further reported benefits included using peer review findings to inform program-level review, using the experiences of peer review to inform discussions on a leadership project and successfully using review outcomes in performance appraisal. A core team member also reported the potential for the review to lead to a further scholarly outcome for one participant, who had not previously written about teaching:

> The response to the review has been … very positive in [terms of] how that person would be interested in writing a paper about the process … he is an engineer and has never written about his teaching before and can see, I think, the scholarly aspect coming out of it.

Further effects of the project beyond the participants

An original intention of this project was to embed peer review in institutional processes for recognition and reward, including processes for promotion. For a variety of reasons, this has not yet been achieved but progress is slowly being made. The ways in which, and the extent to which, peer review can be embedded in institutional policies and practices vary with different institutional cultures, prior

experiences with peer review and other forms of evidence about teaching, peer review and institutional leadership. As elaborated above, one observation is that peer review for recognition needs to support improvements in teaching and learning rather than being seen as another institutional requirement. There is therefore a need to build engagement in formative peer review and develop trust in the process with academics at all levels across an institution.

At the lead institution, the foundations and graduate certificate programs have recently been revised and are now placing greater emphasis on peer review evidence. The scholarly framework developed in this project has been trialled in these programs and is also being used by some participants in a leadership program for subject coordinators working with sessional academics (this program is part of the ALTC-funded project *Leading professional development of sessional staff*).

There is also a current review of promotions policy, which offers an opportunity for considering the desired place of peer review evidence. At present, peer review evidence is one of the forms of evidence about teaching that is discussed in workshops for promotion applicants. Applicants are encouraged to support their claims with diverse forms of evidence. The scholarly framework has been introduced in workshops for promotion applicants and promotion committee members as a framework for demonstrating and informing judgments about teaching quality. However, peer review evidence is not required for promotion and applicants are not yet able to attach additional peer review documents to their applications. Peer review evidence has been used in applications for teaching awards and ALTC citations, and the guidelines for internal awards and citations have been modified to include peer review evidence as a recommended form of supporting evidence in an application.

In one of the partner universities, RMIT, the positive experiences of some institutional team members in this project led to further development and expansion of peer review in the Health Sciences area. One of the institutional team members initially became a peer review leader, engaging 10 academics in a small group before involving others in the department:

> *I think we only met for an hour but all of us felt very excited about how potentially we're going to take this forward … I think all of us – there was a small group of us that took part in the initial peer review – I think we realised how beneficial it was. In that respect we were excited to share it with others and to see how others reacted … The group is a very diverse group … so that will be good too.*

The group adapted the framework and protocols developed in this project, and combined them with elements of other projects, including the online system developed in the ALTC *Peer review of online teaching and learning* project. In an early round of adaptation, the group developed a formative peer review process that included a rating scale for criteria and elements from the *Peer review of teaching for promotion purposes* project (Crisp et al. 2009). In a later adaptation, group members are reported to have moved away from the rating scale approach towards a more open-ended and negotiated process. The group leader now has a university fellowship and is focused on leading peer review. She also has two honours students who are currently using psychological theories to research aspects of teachers' attitudes towards and outcomes of peer review.

At another partner institution, peer observation was already included in the foundations program and peer review noted as a component of promotion applications. As yet, there has not been institutional adoption of this project's approach to peer review. In part, the reasons for this were reported to be due to

workloads and the reluctance of some academics to write about teaching and learning.

Peer review focused on online and blended learning environments is being used in collaborative communities of practice that provide support for academics who are moving to a new learning management system. Academics who come to community meetings need to be prepared to show their online sites and talk about what they are trying to achieve, think is working well and would like to be able to do. The group facilitator reported a move towards collegial peer review and gradual evolution towards best review practice.

At a further partner institution, peer review is also part of the foundations program and the program leader has indicated a willingness to use resources from this project with participants. The institution is moving towards a greater focus on developmental peer review, influenced by a combination of the principles described in the reports of the ALTC-funded *Peer review of teaching in Australian universities* project (Harris et al. 2008b), the *Peer review of teaching for promotion* project, this project and other staff-developed resources.

Within one school in that university, there is an intention to use peer review in subjects that are offered in different delivery modes and at different locations. Peer review processes that can work across face-to-face, online and blended modes are seen as important for improving practice and monitoring quality.

An observation shared by most of the partner institutions is that discussions of peer review are becoming more common across a variety of contexts including foundations programs, quality improvement, changes in online systems and modes of delivery, and processes for valuing, recognising and rewarding teaching. This offers a range of opportunities to spread and implement components of this and other ALTC-funded peer review projects. As one project team member commented:

> *I suppose we seem to be having peer review conversations all the time at our university and I'm trying to implement it as much as possible as far as the framework is concerned.*

Lessons learned: factors influencing and impeding success

As with other projects, a significant factor influencing the successes of this project was the commitment of project team members and their institutions. Core team members were committed to the project, participated in regular team teleconferences and collaborated with their institutional teams. Collaboration between the five institutions continued throughout the project despite some changes of core team members and changes in the work roles and responsibilities of other core team members. Almost all institutional team members from all five institutions completed their reviews and provided useful documentation.

Three factors appear to have contributed to the successful ongoing collaboration. One was the personal commitment of the core team members. The second was a highly effective project officer who maintained effective communication with all team members, and followed up ideas. The third was sponsorship of the project by the pre-existing Australian Technology Network Teaching and Learning Committee. Interestingly, only one member of this group, the project leader, was part of the group (albeit in an acting role) at the initiation of the project application and remained part of the group for the duration of the project. Other members of the group changed, but ensured that their university maintained continuity, replacing core team representatives when previous representatives moved on.
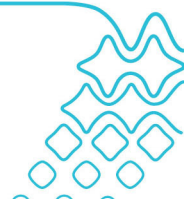
Delays within the project arose from a number of sources. One was changes within the project team, as outlined above. A second was a six-month delay in appointing the project officer, as one potential appointee proved unreliable and a second was unable to continue. A third factor was a substantial increase in the range of commitments of the project leader. A fourth factor was that some of the original project aims and intended activities proved overambitious when other institutional priorities and timelines were taken into account. In the absence of external drivers (such as those experienced by the Quality Assurance Agency in the UK and which potentially have unintended consequences), the introduction of peer review at the institutional level is unlikely to be achieved within two years.

While not necessarily affecting or impeding the success of the project, it is worth mentioning that intended and actual communication processes varied considerably in the project. An original intention was to use a site within the lead institution's learning management system for project management and communication between institutions and for sharing any peer review resources that already existed. An 'organisation' site was set up, including a discussion board, resource pages and a wiki for the project team to collaboratively develop the peer review framework. Group sites were also set up for the institutional teams. All project team members were provided with organisation leader access, with participant access available for institutional team members.

Monitoring of usage indicated that the site was primarily used as a repository for project documents, including transcripts and notes from team meetings, and framework versions. Project team members posted some local peer review resources early in the project and there was some use of the site for accessing documents. However, the planned use of the site for team communication and collaborative framework development did not eventuate. The project team found it most convenient to communicate using monthly teleconferences, with teleconference notes or transcripts and other documents circulated by email. Some institutional teams engaged in regular face-to-face team meetings, while others worked most often in pairs, supported by the institutional core project team member.

6.0 Dissemination

Dissemination included processes designed to inform and engage others in the partner institutions, as well as workshops and presentations to engage with, and raise awareness of the project in, the broader academic community. Based on a core team made up of members from five institutions and a team of academics within each institution, the project was designed to encourage dissemination in the institutions beyond the core team and ideally more widely in participants' departments. Some of this further dissemination is reported in the section above dealing with effects of the project beyond the participants.

This section reports on specific dissemination activities, including workshops that were intended to engage participants, and scholarly presentations and publications that were primarily intended to raise awareness.

Workshop activities

Project workshops have been offered in different modes and to a range of different audiences. The aim of the workshops has been to engage participants with the project, gain feedback and trial different approaches to using workshops for professional development of reviewers.
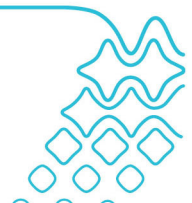
Workshops began in the lead institution with a university-wide seminar/workshop on the project in April 2009. It was aimed primarily at engaging wider interest in the project and accompanied by an invitation for attendees to participate in a 'peer review interest group' to start the process of building a broader community. The session included discussion of the aims of the project and the development of the framework and protocols along with case studies presented by the institutional team members. Participants were invited to use a modified template based on the peer review framework to give feedback on the session and gain some experience in using the framework.

Of the 22 participants (excluding the presenters) in the seminar/workshop, most indicated an interest in further engagement with peer review, particularly for gaining insights that complemented or went beyond those provided by student feedback, and using these to improve teaching. Discussion on the potential use of peer review for promotion or teaching awards yielded more mixed views, with an optional approach to the use of peer review evidence favoured.

This event was followed later in the year by a workshop run in a faculty as part of their teaching and learning seminar series. This workshop was offered in a different format, designed to engage participants directly with the project framework and materials. Following a short introduction, participants worked in pairs, using a copy of a combined reviewer–reviewee template for the 'reviewer' to ask briefing questions and the 'reviewer' to respond.

A third workshop was offered at an ATN cross-institutional symposium for early career academics who had shown potential for leadership in learning and teaching. The symposium was attended by 25 early career academics along with a representative of each of the ATN academic development units. The intention of this workshop was for participants to use a broad version of a briefing template as a framework for describing one of their teaching innovations to a peer, and gaining feedback and questions for reflection. Participants worked in describer–reviewer pairs and swapped roles at the halfway point. Observation of the pairs suggested that the framework was effective for guiding descriptions of scholarly practice, but a number of pairs departed from working through the framework as they became increasingly engrossed with learning about their peers' innovations. Overall, participants responded favourably to the possibilities of peer review, although some were sceptical about whether colleagues who were less interested in teaching would be willing to participate.

A final trial workshop was presented at the ASCILITE conference in 2009. In this workshop, participants were invited to bring their laptops in order to experience a short peer review of aspects of online teaching and learning. The session was attended by 26 participants. After a short introduction to the project, participants were provided with a peer review template and invited to work in pairs or threes in which at least one person would be the reviewee and be prepared to show aspects of their online teaching or course materials.

Almost all attendees actively participated as reviewers or reviewees, with the exception of three who had come along 'to learn more about online teaching' and had been invited to observe the practices of others. Aspects of teaching that were reviewed included teaching within learning management systems, an online tutorial for students and aspects of an online staff development course. Most participants needed little support to engage with the template, and the review processes, including verbal feedback, were generally very positive. As with the early career academics, it was noticeable that some pairs departed from the framework but were nonetheless avidly engaged in conversation about relevant aspects of the online teaching that was being reviewed. Attendees were provided with an evaluation

sheet that asked for their feedback on the template and process, and their possible use for further promotion, but unfortunately only four evaluations were returned.

Overall, observations of the workshops suggested that the workshop models that involved participants in using the templates for a real 'mini-review' were successful in engaging participants and prompting thoughtful questions about the peer review process. These models are also the most useful for developing reviewer capacity, as engaging in the process requires reviewers to consider and clarify the meaning of the criteria and prompts. Future workshops plan to use these processes and allow sufficient time for participants to practise writing review comments as well as giving verbal feedback.

Presentations and raising awareness inside and outside the partner institutions

Within the participating institutions, raising awareness beyond the institutional team began with a joint presentation and discussion of the project by team members at the annual UTS Teaching and Learning forum in November 2008. By this stage, all team members had engaged in at least one round of peer review and presented their observations and reflections on the process. Draft resources were also circulated. The main purposes of the session were to raise awareness of scholarly peer review and gain feedback from the audience. A similar presentation was given at a teaching and learning forum at RMIT, with Curtin team members engaging a wider audience at the annual Teaching and Learning forum organised jointly by universities in the Perth region.

Further presentations and papers were given at the HERDSA and ASCILITE conferences. Institutional team members presented papers that were directly from or strongly informed by this project at two different disciplinary conferences. The following is a current list of presentations and publications from the project. Further articles are in preparation.

Anderson, T.K., Parker, N.J. & McKenzie, J. (2009). Assessing Online Collaboratories: A Peer Review of Teaching and Learning. In *Assessment in Different Dimensions: A conference on teaching and learning in tertiary education* (ATN Assessment Conference, RMIT University), ed Milton, J., Hall, C., Lang, J., Allan, G. and Nomikoudis, M., Learning & Teaching Unit, RMIT, Melbourne, Australia, pp. 7–16.

Chester, A., Kienhuis, M., Reece, J., Standfield, R., and Yap, K. (2010). Peer review of teaching: A five-stage model for building communities of reflective teaching practice. Paper presented at the International Congress of Applied Psychology, Melbourne, Australia.

McKenzie, J. (2008). Engaging with frameworks for peer review in 'blended' learning environments. Paper presented to the HERDSA 2008 International Conference, Rotorua, New Zealand, 1–4 July.

McKenzie, J., Docherty, P., Menzies, G., Tse, H., Wyllie, A., Carey, M., Haines, J., Anderson, T. & Parker, N. (2008). Piloting Scholarly Peer Review of Teaching and Learning in Blended Learning Environments at UTS. Paper presented to the UTS Teaching and Learning Forum, University of Technology, Sydney.

McKenzie, J., Pelliccione, L. & Parker, N. (2008). Developing peer review of teaching in blended learning environments: Frameworks and challenges. In *Hello! Where are you in the landscape of educational technology?* Proceedings Ascilite Melbourne 2008, <http://www.ascilite.org.au/conferences/ melbourne08/procs/ mckenzie-j.pdf>.

McKenzie, J., Pelliccione, L. & Parker, N. (2009). What makes blended learning effective? An interactive session of peer review, same places, different spaces,
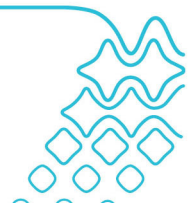
Proceedings Ascilite Auckland 2009, , <http://www.ascilite.org.au/conferences/auckland09/procs/McKenzie-interactivesession.pdf>.

Parker, N. & McKenzie, J. (2010). Reshaping academic practice with our peers: Experiences of peer review in blended learning environments. Paper presented to the HERDSA 2010 International Conference, Reshaping Higher Education, Hilton on the Park Melbourne, Australia, 6–9 July.

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Linkages with other projects

This project was funded in the same round as the *Peer review of online learning and teaching* project led by Dr Denise Wood from the University of South Australia. At the time of funding, the projects were planned to be distinctive but complementary and to collaborate on aspects of common interest, including a joint workshop. At this time, the project teams also shared two members in common and this was intended to support communication.

The distinctive and complementary focuses of the project were maintained, however delays in the appointment of a project officer, and the departure of the common team members from their respective universities and their replacement by others who were not involved with both projects, meant that the level of possible collaboration was reduced. The timing of the two projects, the divergence of their approaches and the limited availability of institutional team members from this project meant that it was not feasible to have a joint participant workshop as originally intended.

One activity that involved both teams did occur, as four members of this project team, including the project leader and project officer, participated in a joint ALTC peer review project event in June 2009, organised and hosted by Dr Denise Wood. The event included presentations from five ALTC projects that had a strong focus on peer review. Discussions were held about project collaboration. The scholarly framework criteria and a set of prompts developed in this project have been made available through the electronic tool produced in the *Peer review of online learning and teaching* project.

A videorecording of the presentation made by the leader of this project at the event is available online at: <http://www.unisanet.unisa.edu.au/peerreview/docs/forum/ALTC-session-3.zip>.

In addition, the project leader participated in and presented a poster on the project at the symposium held in Melbourne by the *Peer review of teaching in Australian higher education project* (Harris et al. 2008b). Participants at the symposium were invited to comment on the work in progress shown on the poster, including an early version of the framework and sample review documentation prepared by participants. In developing our project further, the project team has taken account of
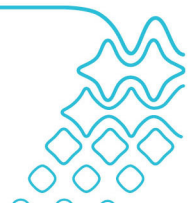
the principles and options outlined in the Harris et al. (2008b) report. Our experience confirms the usefulness of these principles and elaborates on some in the context of blended learning environments.

The project officer attended one of the dissemination workshops of the *Peer review of teaching for promotion purposes* project (Crisp et al. 2009) and obtained copies of the resources from this project. Although our project has taken a very different direction on exploring the possibilities of peer review for promotion, the projects share some common observations. These include the need for formative, as well as summative peer review. We also agree with Crisp et al. (2009) that artefacts such as portfolios are more appropriate objects for independent, external review than are face-to-face classes or active online sites.

Potential for adaptation and use

The project was planned to enable the adaptation and implementation of its resources and approach across other institutions, taking into account the findings of previous dissemination studies (McKenzie et al. 2005; Southwell et al. 2005). A number of key features have been built into the project. These include:

Focusing the project on an issue that is common across institutions. Teaching in online and blended learning environments is widespread across universities within Australia. Peer observation of face-to-face teaching is becoming more common, particularly as part of foundations or graduate certificate programs for university teachers, but there has been much less focus on peer review in online and blended learning environments. This created a potential need to develop peer review resources and processes that were suited for use across the range of blended learning environments.

**Development across a range of different institutional contexts**. The peer review frameworks, templates and protocols from the project were developed and trialled across five different institutions. Although all institutions were ATN universities, they had different levels of previous involvement in peer review, different systems for evaluating teaching and different promotion policies and requirements. They also have different histories in relation to involvement in online distance learning and choice of learning management systems and other technologies for learning. Trialling across these institutions increased the likelihood that the resources would be adaptable for use in other contexts. Since the presentation of a project workshop at ASCILITE 2009, academics from two other institutions have approached the project leader to provide resources and advice on their use or to run institutional workshops.

Involvement of participants from a range of discipline areas and backgrounds. Although the mix of disciplines was not as diverse as we had originally hoped, the project did involve academics from a range of areas: science, engineering, business, humanities, health, education and creative media. This disciplinary diversity was particularly valuable for identifying and addressing (as far as possible) issues of educational jargon and practices that might limit the interdisciplinary use of the resources. It is, however, highly desirable for reviewers to participate in professional development on the use of the resources.

Engaged dissemination at different stages of the project. As noted in the dissemination section, the draft peer review framework, peer review process and initial examples and workshop approaches were trialled at conferences for wider feedback.
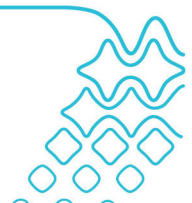
Adaptability of project deliverables.
A key lesson from the literature on dissemination of innovations in higher education is that institutions and academics are unlikely to use materials that cannot be adapted to their own contexts. The templates and other resources have been made available as adaptable Word documents. Some members of institutional teams have already created local adaptations. For example, although the project team did not favour a 'checklist' approach, we are aware that some participants adapted local checklists.

Development of resources to support implementation.
Resources that have been developed include workshop guides, case studies and media resources, and these have been made available on the project's public website.
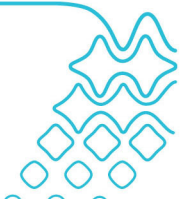
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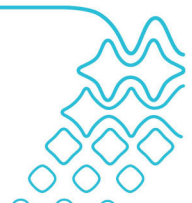
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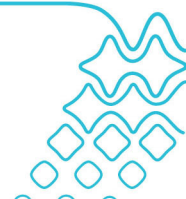
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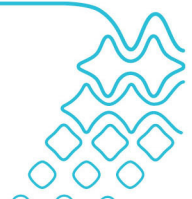
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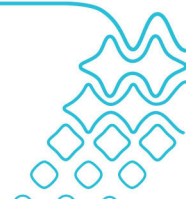
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Wood, D. & George, R. (2003). Quality Standards in Online Teaching and Learning: A Tool for Authors and Developers, *Interact, Integrate, Impact, Proceedings of the 20th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) Conference*, in G. Crisp, D. Thiele, I. Scholten, S. Barker & J. Baron (eds), Australasian Society for Computers in Learning in Tertiary Education, Adelaide, Australia, 552–561.
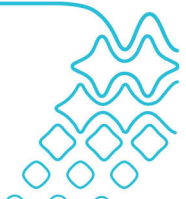
Appendices: sample peer review resources

Recommended protocol for formative peer review

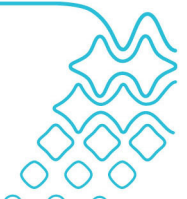Recommended protocol for summative peer review

Briefing template: planning your review and briefing your reviewer

Peer review template

Peer review template: reviewee and reviewer

Peer review summary report

Peer review summary report for promotion or awards

Recommended protocol for formative peer review

The aim of formative or developmental peer review is to provide the reviewee with feedback on aspects of their teaching. Depending on your purpose, the process may be more or less formal. The following five stages are recommended.

1. Preparing for the review
Preparation is important to enable a valid and insightful review to be conducted.

- The reviewee should inform students prior to the peer review, either in class or by posting the **Briefing statement for students** in the subject's online site.
- The reviewee reflects on the aspects of teaching or the subject on which the review should focus. Ideally this involves completing the short **Briefing template** and sending it to the reviewer. Completing the template is recommended as it enables the reviewee to reflect and clarify their thoughts on the focus of the review.

2. Briefing

- The reviewee and reviewer have a pre-meeting discussion to discuss the review and to clarify the information on the Briefing Template, if this has been provided.
- The reviewee and reviewer agree on the timing for the review and the reviewee gives the reviewer access to relevant materials including password access to any online sites.

3. The reviewing process
The reviewer reviews the components that have been selected. It will usually be necessary to 'sample' from components such as subject materials, online discussions or other student work rather than reviewing all of them. Depending on what is being reviewed, reviewers may choose to:

- review the material separately, taking notes in an electronic or paper copy of a **Peer review template**, and making notes directly on the **Formative summary report template**
- conduct the review in parts, first gaining an overview, then requesting additional materials or information from the reviewee. This can be useful for complex online activities
- conduct the review in a conversational way, noting points and asking questions during the process, if subject materials or online activities are being reviewed.

4. Debriefing and reporting
The reviewer and reviewee should meet to debrief as soon as possible after the planned review is completed. Prior to the debriefing, the reviewee may choose to self-review using a relevant template and bring this to the meeting. The purpose of the meeting is for the reviewee to receive constructive feedback that they can reflect on and use to improve their teaching. The meeting might include the following:

- initial self-review comments by the reviewee
- constructive feedback by the reviewer, responding to the reviewee's comments and describing what they noticed in the review
- discussion between the reviewer and reviewee about suggestions for improvement and the next steps forward.

5. Follow-up action
A formative review can be one step in an ongoing process. The review could be followed by:

- completion of the **Formative summary report template** to document the review and suggestions
- reflection by the reviewee and development of an action plan based on the review findings
- a second round of peer review, following implementation of the action plan, in a subsequent semester. The second peer review could be formative or summative, taking into account any changes that have been made
- a **Reciprocal review**, in which the reviewer becomes the reviewee.
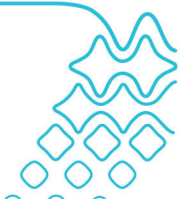
Recommended protocol for summative peer review

The aim of a summative peer review is to provide evidence about the reviewee's teaching for performance reviews, applications for promotion or teaching awards and other situations that involve judgments about teaching. Summative reviews can be broadly or narrowly focused. A broad review might 'sample' across the reviewee's teaching in a subject and include visiting a face-to-face class and/or reviewing activities on an online site, reviewing materials such as the subject/unit outline, assessment tasks and examples of student work. A narrow review might focus on a particular component of teaching, such as a teaching innovation or particular student activities.

Four stages are involved in conducting a summative review.

1. Preparing for the review
Preparation is important to enable a valid and insightful review to be conducted.

- The reviewee should inform students prior to the peer review, either in class or by posting the **Briefing statement for students** in the subject's online site.
- The reviewee reflects on the aspects of teaching or the subject on which the review should focus. Ideally this involves completing the short **Briefing template** and sending it to the reviewer. Completing the template is recommended as it enables the reviewee to reflect and clarify their thoughts on the focus of the review.

2. Briefing

- The reviewee and reviewer have a pre-meeting discussion to discuss the review and to clarify the information on the Briefing Template, if this has been provided.
- The reviewee and reviewer agree on the timing for the review and the reviewee gives the reviewer access to relevant materials including password access to any online sites.

3. The reviewing process
The reviewer reviews the components that have been selected. It will usually be necessary to 'sample' from components such as subject materials, online discussions or other student work rather than reviewing all of them. Depending on what is being reviewed, reviewers may choose to:

- make notes in an electronic or paper copy of a **Peer review template** that contains the peer review framework and example criteria
- use the framework and criteria listing sheet as a guide and make separate notes
- conduct the review in parts, first gaining an overview then requesting additional materials or information from the reviewee. This can be useful for reviews of complex online activities.

4. Debriefing and reporting
The reviewer and reviewee should meet briefly after the planned review is completed, to enable them to discuss any issues that may have affected the teaching components that were reviewed. (There may be cases where issues outside the reviewee's control mean that it is not appropriate to complete the summative review.) As soon as possible following the discussion:

- The reviewer completes the **Summative peer review report** form, based on the review evidence, and sends a copy to the reviewee.
- The reviewee completes their response to the review.
- The reviewer and reviewee arrange to sign a common completed copy. This might be achieved by scanning and emailing or electronic signature, depending on institutional requirements.
- Depending on institutional or local requirements, the reviewee might submit the full review with their application or performance review material, or extract quotes from the review to include with their application.
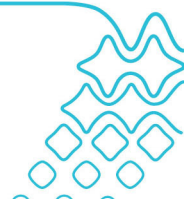
Briefing template: planning your review and briefing your reviewer

Planning and briefing your reviewer will help you get the most out of the review process. This **Briefing template** is a tool for helping you to plan your review and its focus, and to communicate this successfully to your peer reviewer. It can be used as a whole or in part, in conjunction with responding to the questions for reviewees on a **Peer review template: reviewee and reviewer**.

Reviewee's name:

1. How do you plan to use this review? (please tick whichever apply)

☐ For feedback and teaching improvement only (formative review)
☐ To provide evidence about teaching for:
    ☐ Performance review
    ☐ Promotion
    ☐ Teaching citation/award
    ☐ Other (eg salary supplementation)
    If you wish to use the review to provide evidence about teaching, please provide your reviewer with a copy of any relevant criteria.

2. Subject and context for the Peer Review

Please provide the reviewer with a copy of your Subject Outline and briefly describe anything else that you think a peer reviewer needs to know about your teaching context in this subject.

3. What aspects of your teaching or the subject do you want this Peer Review to focus on?

(*Examples (please delete): Online activities, particularly their effectiveness for encouraging student participation and learning; The extent to which the subject encourages student creativity and inquiry, especially through the assignment and online collaboration groups.*)

What evidence will the peer reviewer need to consider in order to review these aspects?

☐ Subject/unit outline .... ☐ Subject notes or other materials ....
☐ Face-to-face class(es) .... ☐ Assessment task descriptions ....
☐ Online materials/activities.................. ☐ Examples of student assessment work ....
☐ Other...
If any aspects are components of an online site, please provide sufficient information to enable the reviewer to locate these components eg include names of relevant links.

4. Please make any additional briefing comments that you think will be useful for the reviewer
(For example, are there any particular issues that
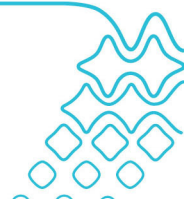
5. Please give brief responses to the following pre-review questions, or use the Peer review: reviewee and reviewer template which contains these questions.

Please refer your reviewer to any subject materials that are relevant (for example, your goals for student learning in your subject overall are likely to be included in your subject outline).

Criteria	Pre-review questions for reviewee
1. Clear goals For students' learning and the design of the subject/learning environment	What are your intentions for student learning in this aspect of the subject/unit/teaching? Why have you designed this subject/aspect of the subject in the way that you have?
2. Current and relevant preparation Of content, teaching and learning practices, taking into account students' needs	How did you prepare for this aspect of the subject/teaching this time?
3. Appropriate and effectively used teaching, learning and assessment methods. Methods are aligned, provide opportunities for students to engage actively in learning and achieve high quality outcomes, are innovative and able to adapt to changing contexts	Are there any particular methods you would like the reviewer to focus on? Are there any concerns that you would like the reviewer's feedback on?
4. Effective communication and interaction Including face-to-face and/or online communication, interaction with students and interaction between students	Are there any particular aspects of your communication that you would like feedback about?
5. Important outcomes Student engagement and learning outcomes Other outcomes may include evidence of innovation or scholarship of teaching and learning	Are there particular outcomes that you would like the reviewer to give feedback about?
6. Reflection, review and improvement Learning from students and other sources, reflecting on evidence and using it to improve	How has previous reflection and feedback informed this aspect of your teaching?
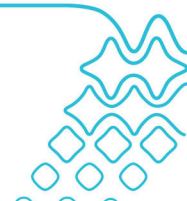
Peer review template

Name of reviewee: Name of reviewer:

Subject/unit: Date(s) of review:

Aspect of teaching or subject chosen for this review:

Evidence reviewed (please tick and add details if relevant):

☐ Subject/unit outline ....   ☐ Subject notes or other materials ....
☐ Face-to-face class(es) ....   ☐ Assessment task descriptions ....
☐ Online materials/activities ....   ☐ Examples of student assessment work.................................

Criteria with indicative review prompts	Reviewer comments
1. Clear goals o Goals for students' learning are clear o Goals are related to the needs of students and the role of the reviewed aspect(s) in the subject (and, if relevant, the overall course) o There is a clear rationale for the design of the subject/learning environment, including the chosen blend of learning opportunities	
2. Current and relevant preparation o Subject content is current, relevant and informed by research and/or current practice o Teaching and learning practices are informed by scholarship and awareness of relevant innovations o Preparation takes students' previous knowledge and experience into account o Learning resources and online sites are well structured and updated in a timely way	

Criteria with indicative review prompts	Reviewer comments
3. Appropriate and effectively used teaching and learning and assessment methods ○ Learning and teaching methods and assessment are aligned with learning goals and objectives ○ Students are encouraged to see the connections between the parts of the subject and the whole and to see how the whole subject relates to the broader field of study ○ Students have opportunities to develop relevant 'generic' graduate attributes ○ Students are encouraged to engage actively in learning ○ Students have opportunities to interact, collaborate with and learn from others ○ Intellectual challenge and support are balanced ○ Student inquiry, creativity, problem solving and experimentation (relevant to the discipline) are encouraged ○ There is an appropriate level of intellectual challenge ○ Students have opportunities for choice and independent learning ○ Students have opportunities to relate what they are learning to broader contexts ○ Innovative or innovatively adapted methods are used appropriately to offer new opportunities for learning ○ Methods offer flexibility to respond to students' experiences, understandings and needs, and to changing situations	
4. Effective communication ○ Face-to-face and/or online explanations are clear ○ Student interest and engagement are encouraged ○ Communication is responsive to students' understanding, ideas and	

Criteria with indicative review prompts	Reviewer comments
progress in learning o Students' communications and questions are responded to effectively and in a timely way o Teaching encourages students to interact with others and discuss, compare, develop and challenge ideas o Assessment expectations, criteria and standards are clearly communicated to students o Feedback on students' learning is clear, effective and timely o There is clear guidance for students on the structure of online and blended resources and the choices that are available o There is effective co-ordination and communication with other staff teaching in the subject	
5. Important outcomes **Student outcomes:** o Students have actively engaged in the subject/learning activities o Students have achieved intended learning goals o There is evidence of other important or unexpected learning achievements **Other outcomes:** o Learning innovations are effective in achieving their goals o Innovations/methods have been adapted and used by colleagues/others o Presentations of scholarly practice have been given to peers o Scholarly publications have been produced and recognised by peers	

Criteria with indicative review prompts	Reviewer comments
6. Reflection, review and improvement o The teacher has learned from students and adapted teaching in response, during teaching and afterwards o Reflection has been informed by a variety of sources such as student feedback, student learning, peers and relevant literature. o Reflection and feedback have been acted on in order to improve outcomes	

Overall review comments:

Peer review template: reviewee and reviewer

Name of reviewee: Name of reviewer:

Subject/unit: Date(s) of review:

Aspect of teaching or the subject chosen for this review:

Evidence reviewed (please tick and add details if relevant):

☐ Subject/unit outline ....   ☐ Subject notes or other materials ....
☐ Face-to-face class(es) ....   ☐ Assessment task descriptions ....
☐ Online materials/activities...   ☐ Examples of student assessment work...
....

Criteria with indicative review prompts	Pre-review questions for reviewee	Reviewer comments
1. Clear goals o Goals for students' learning are clear o Goals are related to the needs of students and the role of the reviewed aspect(s) within the subject o There is a clear rationale for the design of the subject/learning environment, including the chosen blend of learning opportunities	What are your intentions for student learning in this aspect of the subject/unit/teaching? Why have you designed this subject/aspect of the subject in the way that you have?	
2. Current and relevant preparation o Subject content is current, relevant and informed by research and/or current practice o Teaching and learning practices are informed by scholarship and awareness of	How did you prepare for this aspect of the subject/teaching this time?	

Criteria with indicative review prompts	Pre-review questions for reviewee	Reviewer comments
relevant innovations o Preparation takes students' previous knowledge and experience into account o Learning resources and online sites are well structured and updated in a timely way		
3. Appropriate and effectively used teaching, learning and assessment methods o Teaching, learning and assessment methods are aligned with learning goals and objectives o Students are encouraged to see the connections between the parts of the subject and the whole and to see how the whole subject relates to the broader field of study o Students have opportunities to develop relevant 'generic' graduate attributes o Students are encouraged to engage actively in learning o Students have opportunities to interact and collaborate with, and learn from, others o Student inquiry, creativity, problem solving and experimentation (relevant to the discipline) are encouraged o There are appropriate levels of intellectual challenge and support for students o Students have opportunities for choice and	Are there any particular methods or activities you would like the reviewer to focus on? Are there any issues that you would like feedback on?	

Criteria with indicative review prompts	Pre-review questions for reviewee	Reviewer comments
independent learning o Students have opportunities to relate what they are learning to broader contexts o Innovative or innovatively adapted methods are used appropriately to offer new opportunities for learning o Methods offer flexibility to respond to students' experiences, understanding and needs, and to changing situations		
4. Effective communication and interaction o Face-to-face and/or online explanations are clear o Student interest and engagement are encouraged o Teaching is responsive to students' understanding, ideas and progress in learning o Students' communications and questions are responded to effectively and in a timely way o Teaching encourages students to interact with others and discuss, compare, develop and challenge ideas o Assessment expectations, criteria and standards are clearly communicated to students o Feedback on students' learning is clear,	Are there any particular aspects of your communication that you would like feedback about?	

Criteria with indicative review prompts	Pre-review questions for reviewee	Reviewer comments
effective and timely o There is clear guidance for students on the structure of online and blended resources and the choices that are available o There is effective co-ordination and communication with other staff teaching in the subject		
5. Important outcomes **Student outcomes:** o Students have actively engaged in the subject/learning activities o Students have achieved intended learning goals o There is evidence of other important or unexpected learning achievements **Other outcomes:** o Learning innovations are effective in achieving their goals o Innovations/methods have been adapted and used by colleagues/others o Presentations of scholarly practice have been given to peers o Scholarly publications have been produced and recognised by peers	Are there outcomes that you would like the reviewer to give feedback about?	

Criteria with indicative review prompts	Pre-review questions for reviewee	Reviewer comments
6. Reflection, review and improvement o The teacher has learned from students and adapted teaching in response, during teaching and afterwards o Reflection has been informed by a variety of sources such as student feedback, student learning, peers and relevant literature. o Reflection and feedback have been acted on in order to improve teaching and learning	How has previous reflection and feedback informed this aspect of your teaching?	

Overall review comments:

Peer review summary report

Name of teacher reviewed: **Name of reviewer:**

Subject and semester of review: **Date of report:**

Aspect of teaching or the subject reviewed:

Evidence reviewed (please tick and add detail if necessary):

☐ Subject/unit outline ....   ☐ Subject notes or other materials ....
☐ Face-to-face class(es) ....   ☐ Assessment task descriptions ....
☐ Online materials/activities ....   ☐ Examples of student assessment work.............
☐ Other...

Criteria for promotions, teaching awards or other awards relevant to this review:
(Please note any specific criteria for which this review provides evidence.)

Criteria	Peer reviewer's feedback
1. Clear goals For students' learning and the design of the subject/learning environment	
2. Current and relevant preparation Of content, teaching and learning practices, taking into account students' needs	
3. Appropriate and effectively used teaching, learning and assessment methods Methods are aligned, provide opportunities for students to engage actively in learning and achieve high quality outcomes, are innovative and able to adapt to changing contexts	

4. Effective communication and interaction Including face-to-face and/or online communication, interaction with students and interaction between students	
5. Important outcomes Student engagement and learning outcomes Other outcomes may include evidence of innovation or scholarship of teaching and learning	
6. Reflection, review and improvement Learning from students and other sources, reflecting on evidence and using it to improve outcomes	

Reviewer's overall summary:
Please comment on aspects of good practice that you have noted and make any constructive suggestions for improvement.
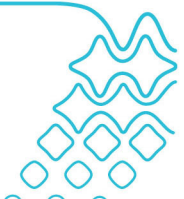

Reviewer's signature: Date:

Teacher's response to the reviewer's comments
Please comment on the reviewer's comments, summarising what you have learned about your teaching from this peer review.

Please comment on any changes that you intend to make in response to this review.

Teacher's signature: Date:

Peer review summary report for promotion or awards

Name of teacher reviewed: **Name of reviewer:**

Subject and semester of review: **Date of report:**

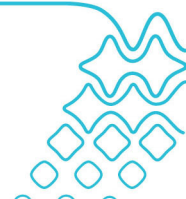**Aspect of teaching or the subject reviewed:**

Evidence reviewed (please tick and add detail if necessary):

☐ Subject/unit outline ....   ☐ Subject notes or other materials ....
☐ Face-to-face class(es) ....   ☐ Assessment task descriptions ....
☐ Online materials/activities ....   ☐ Examples of student assessment work.............
☐ Other...

Criteria for promotions, teaching awards or other awards relevant to this review:
(Please note any specific criteria for which this review provides evidence.)

Criteria	Peer reviewer's feedback
1. Clear goals For students' learning and the design of the subject/learning environment	
2. Current and relevant preparation Of content, teaching and learning practices, taking into account students' needs	
3. Appropriate and effectively used teaching, learning and assessment methods Methods are aligned, provide opportunities for students to engage actively in learning and achieve high quality outcomes, are innovative and able to adapt to changing contexts	
4. Effective communication and interaction Including face-to-face and/or online communication, interaction with students and interaction between students	
5. Important outcomes Student engagement and	

learning outcomes Other outcomes may include evidence of innovation or scholarship of teaching and learning	
6. Reflection, review and improvement Learning from students and other sources, reflecting on evidence and using it to improve	

Reviewer's overall summary
Please provide any additional or overall comments on the aspects of teaching or the subject that you have reviewed.
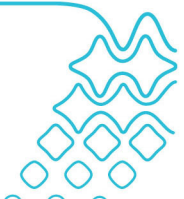
Reviewer's signature: Date:

Teacher's response to the reviewer's comments
Please sign to indicate that you have sighted this review and make any necessary explanatory comments.

Teacher's signature: Date:

AUSTRALIAN
LEARNING
&TEACHING
COUNCIL

Promoting excellence in higher education