Balancing act: How can universities recognise the scholarly nature of eLearning development for university teachers?

Andrelyn C. Applebee and Kim McShane
Institute for Teaching and Learning
The University of Sydney, Australia

Stephen D. Sheely and Robert A. Ellis
Office of Pro-Vice-Chancellor (Learning and Teaching)
The University of Sydney, Australia

Abstract

University teachers, even those in predominately, campus-based institutions, are facing a number of pressures to integrate eLearning into the experiences of their students. Students are increasingly expecting it, colleagues are innovating with it and disciplinary bodies are publishing key texts and research in electronic format. But there is overwhelming evidence that teachers have limited time and energy to devote to developing skills for eLearning. Given the workload pressures of teachers, this paper talks about how we can encourage teachers to adopt a sustainable approach to the development of the knowledge and skills they need to integrate eLearning appropriately in university courses. This paper discusses an articulated embedded academic development program, which integrates academic development programs for eLearning within a recognised Higher Education Degree Program as a way of giving them scholarly validity and recognition by their institution.

Introduction

The adoption of eLearning, flexible, online, mixed-mode, convergent, mobile and networked learning approaches in tertiary institutions (the terms grow as quickly as the systems) to support how students are learning in even predominately campus-based experiences is researched across many international higher education systems (Midkiff, DaSilva & Plymale, 2002; Collis & van der Wende, 2002; Valcke, 2004).

The up-take of these approaches, coupled with a wide variety of technologies for learning such as conferencing technologies, message-based interactions, synchronous and asynchronous interfaces, wireless communications, electronic response systems, and streaming technologies is putting university teachers under considerable stress if they try to keep up with even a small percentage of the more useful of these technologies for their own discipline (McNaught & Vogel, 2004). The appropriate use of new approaches and technologies to learning and teaching in higher education is put at risk if teachers are who are already stretched in their ability to handle their existing administrative, teaching, research and community service loads, are not supported in ways that will recognise their professional standing as university teachers for which they will get credit.

How can academic development programs assist academics facing these challenges to balance their efforts? Research into effective teaching and learning in higher education (Ramsden, 1992; Prosser & Trigwell, 1999) outlines the strong link between approaches to teaching and learning and academic development. However academic development needs are intimately related to institutional structures (Brew, 1995) and the locale of the development programs within the institution will either add or detract from their perceived usefulness. Where is the best place to locate such development programs? How often and when should they occur? How can they become fully embedded in a sustainable way? And how can they be made more adaptable for busy academics?

Academic pressures

Anecdotal evidence suggests that there are multiple pressures on academics to undertake research, consultancies, community service, teaching, scholarship, professional development, mentoring and administration etc. Research supporting this view has found an increased resistance from academics to attending workshops and sustained academic development courses (Boud, 1999; Bates, 2000; Collis & Moonen, 2001; Laurillard, 2002). Time pressures on academics have become increasingly problematic with studies suggesting that 'the number of widows for training opportunities is diminishing' (Jackson, D'Alessandro, 2004, p. 461). Indeed, 'time poor' academics (Goodyear, 2005) require timely guidance and assistance to better use new educational technologies in their teaching.

Lack of time is not the only recognised impediment to academics' adoption of new technologies. Other disincentives include a lack of resources (human, monetary, access to specialist expertise), lack of expertise in educational theory and concepts, lack of knowledge of what is technologically possible, and lack of valuing teaching and learning (Steel, 2004). Given these pressures is it little wonder that academics find it hard to undertake appropriate (or even any!) academic development in eLearning. How are they are expected to manage and deal with the additional technology stresses within their current work/life demands? University teachers need support to understand new, emerging and converging educational technologies and to relate them to appropriate ways of teaching their students. Although new technologies may enable innovative forms of teaching and learning to take place, they cannot by themselves ensure that effective and appropriate learning outcomes are achieved. It is not the technologies, but the "educational purposes and pedagogy that must provide the lead" (Kirkwood & Price, 2005, p. 257). Research to date also suggests that it is the institutional framework, not the technology itself that leads to an improvement in the quality of students' experience (Alexander & McKenzie, 1998; Boud & Prosser, 2002) and that organisational initiatives must assist academics to move into a new 'comfort zone' (Applebee, Ellis, & Sheely, 2004).

What is currently happening in academic development programs in relation to eLearning? A variety of approaches to eLearning in academic development programs have been noted. Surveys conducted in 1998 (Ellis, O'Reilly & Debreceny) found that many academic development (AD) programs focusing on online teaching and learning across Australian universities were taught in traditional ways, not utilising the medium they were teaching. Other programs emphasise technical aspects such as how university web pages in academic development programs can support teaching and learning online (O'Reilly, Ellis, & Newton, 2000). Participation in programs varies from those that rely totally on voluntary participation in curriculum-based workshops and courses (MacKenzie & Staley, 2000) to customised workshop programs offering multi-campus support for academics (Weaver, Button ,& Gilding, 2002). Some academic development programs focus on increasing the flexibility of the pathways for academic development. One such program (Segrave, Holt & Farmer, 2005) has been designed to take advantage of and recoup the investment in the educational benefits of major new investments in corporate technologies that support online teaching and learning. The diversity of these approaches reflects the different institutional drivers and the corresponding responses to local pressures on academic professional development.

Internationally academics in the UK have access to useful examples of eLearning offered through the *Centres for Excellence in Teaching and Learning* scheme. For example, one of these centres, in the Institute of Educational Technology at the Open University (OU), supports professional development of academics engaged in teaching and course design in a range of ways from dissemination of information through specific events, workshops and short courses, including online, to accredited programs of study. Various strategic approaches to eLearning have also been developed by other UK tertiary institutions to recognise the need for a strategic 'whole institution view' that aims to enable institutions to meet the needs of learners and to support skilled development for academics (HEFCE, 2005). What do these previous experiences suggest for those wishing to build on best practice?

Research in and for eLearning

A sound way to underpin strategies for academic development is to embed them in a research-led approach (Brew, 1995). Research into effective teaching and learning in higher education (Ramsden, 1992) outlines the strong link between approaches to teaching and learning and academic development and the need for development programs to change in line with the institution.

> Academic development must respond to the conceptions that the institution it serves has of itself or be dismissed as irrelevant. As these conceptions change and grow so must academic development lead and respond to change (Boud, 1995, p. 207).

There is a need for a comprehensive and coherent approach to the development in and use of resources for eLearning that enables academics timely access to professional development, acknowledgment of their achievements that complements knowledge building and sharing across institutional structures and builds on a research-led approach that integrates academic development into a scholarly activity. To investigate further such an option, the University of Sydney developed a program that built on existing research into the experience of how academics were using eLearning and then used these experiences to help design better student learning. The result is a holistic approach to academic development incorporating eLearning called an articulated academic development eLearning program for teachers (aADePT). This program offers a balanced approach that helps academics receive appropriate recognition for the development of their knowledge and support for their investment in training that ultimately benefits student learning. The aADePT is supported by principles of

- improving knowledge-sharing of professional development strategies
- providing recognition within the institution for adoption of professional development, and
- promoting eLearning research and development that has as its foundation student learning improvements, rather than a development in technology *per se*.

The key characteristic of aADePT is that it can provide timely access to appropriate knowledge and training in educational technologies along two articulated pathways: *upskilling* and *legitimising*. Underpinning this program is the need for academics to engage with, discuss, experience, put into practice and reflect on pedagogical issues within their institutional policies related to eLearning. In turn, this draws upon the depth and strength of teaching and learning across multiple institutional levels (University, College, Faculty, School) recognising that knowledge sharing of eLearning practices occurs across these levels. Incentives to encourage training uptake are provided in the recognition within the institution for the completion of training. New and existing academics are able to undertake development programs that provide timely access to appropriate training in education technologies along these two articulated pathways.

Articulated pathways

At the University of Sydney multiple articulated pathways are available to academics interested in eLearning development that can be employed in their approaches to teaching. Academics can either upskill their approach to eLearning design and teaching represent by the broken lines in Figure 1 and/or they can legitimise and receive recognition for their professional development by incorporating it into a Master of Education (Higher Education) (HE) represented by solid lines in Figure 1.
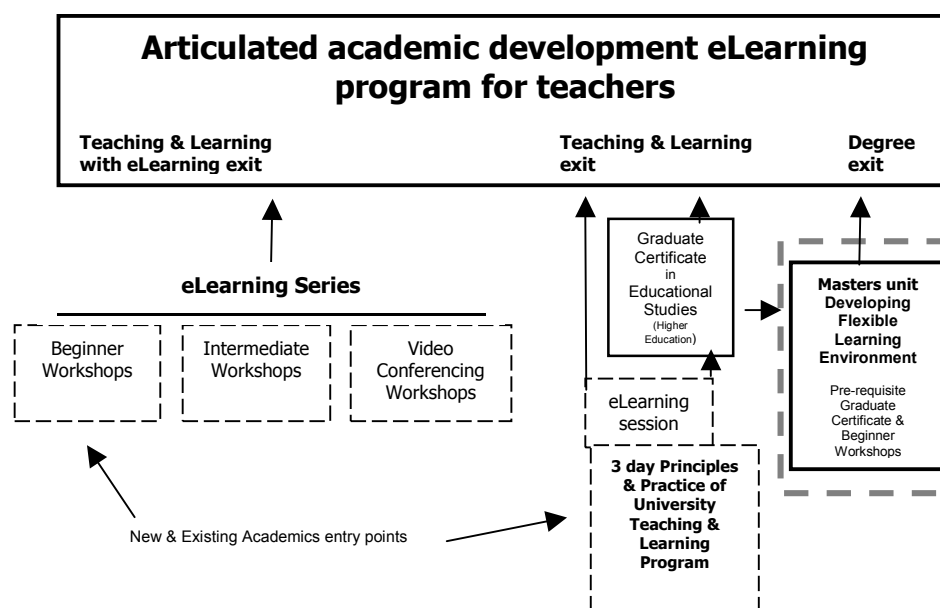

Figure 1: Articulated academic development eLearning program for teachers (aADePT)

The value of this program to the institution is that both pathways are recognised as being educationally sound options by faculties, University administration and the Academic Board. These institutional bodies validate the academic merit of these pathways and provide recognition within the University framework. Figure 1 can be understood as three strands. Academics can undertake any of the eLearning workshops in the eLearning Series as part of upskilling of their professional knowledge and training. A fuller discussion of the eLearning Series follows. Newly appointed academics can (and are often required to) undertake the 3-day Principles and Practice of University Teaching and Learning Program (of which one session is based on eLearning) and can then either choose to exit the program or can continue to complete a Graduate Certificate in Educational Studies (Higher Education). Academics who have completed the Graduate Certificate and the Beginner Workshops in eLearning have then fulfilled the prerequisites for the Masters unit in Higher Education and can continue to take out a recognised higher education degree.

Upskilling pathway — eLearning series

The term eLearning at the University of Sydney encompasses the elements of the Learning Management System (LMS) and video conferencing. As observed in Figure 1; three components comprise the eLearning Series: the Beginner workshops, Intermediate workshops (both dealing with the University LMS and emerging technologies) and Video conferencing workshops.

The eLearning Beginner Workshops offered on multiple campuses have strong support across all faculties at the University, with over 400 staff having engaged in some form of academic development related to the LMS to date. The Beginner eLearning Workshops adopt a solid teaching and learning perspective embedded in constructivist alignment (Biggs, 2001) rather than a solely 'Which button do I push now?' approach. This University-centrally program is offered either in a two-week cycle, up to six times a year, predominantly during non-teaching periods, or in a fully intensive mode. Specific school and faculty-based workshops can also be negotiated and arranged to fit into the academic teaching calendar. The workshops cover six topics taught in blended mode, with face-to-face and online components and assume no prior knowledge of the LMS. The six workshops *Introduction to online learning*, *Designing communication activities, Planning and designing online learning sites, Engaging with the online learning environment, Evaluating and assessing online learning* and *Going live with WebCT*, take participants through an initial orientation to site design and build in student-focussed activities, communication activities, assessment options among other skills. Participants complete the series by considering how to activate their finished site. Each workshop optimises opportunities for busy academics to maximise their attendance. Because of the modular nature of the program, participants do not necessarily remain in one cohort, but can exit and re-enter at other times (Jackson & D'Alessandro, 2004). Participant evaluation continually indicates a high level of satisfaction and this feedback is integrated into the bi-annual review of the content.

Intermediate Workshops are regularly offered in advanced, on-demand technologies throughout the year, which again optimise the opportunities for academics to adjust to learning about how to integrate these emerging technologies into their teaching in a time sensitive manner. Similarly Video Conferencing Workshops are held regularly and taught by staff from specialist areas in collaboration with academics from the Institute for Teaching and Learning (ITL). These workshops focus on practical 'hands-on' aspects of video conferencing, a process that is supported by a consideration of current teaching and learning issues, reflection on practice and peer feedback. Again, these workshop activities are grounded in the student learning experience.

Upskilling pathway — eLearning helpdesk

The formal workshops in the eLearning and Video Conferencing Series are paralleled by informal support provided by a central eLearning helpdesk. The helpdesk role is threefold. Firstly, it is a readily available resource to help academics with the practical functionalities of the LMS thus reducing the need to deal with "button pushing" during the formal workshop sessions and freeing more time to deal with pedagogical and design issues. Secondly, as the eLearning helpdesk is staffed by educational designers it acts as a just in time resource providing design and educational advice to academics while they are in the process of building their sites — reinforcing the lessons learnt during the various programs. Thirdly, the help desk functions as a reference point referring academics to other parts of the University where they might get help (such as the ITL or the library) or directing them to whatever point in the articulated pathway best meets their needs.

Upskilling pathway — 3-day 'Principles and Practice of University Teaching and Learning' program

A second entry point for academics on the upskilling pathway is the general 3-day introductory academic development program of which eLearning is a core part (see Figure 1). The 3-day Principles and Practice of University Teaching and Learning program (mandated by the University of Sydney Academic Board for new academic appointments since 2001) is the lynchpin that epitomises ongoing change in the teaching and learning and engages academics with current research into learning and assists them to develop practical pedagogic skills that stand them in good stead for their teaching careers (Asmar, 2002). The program is offered four times a year during non-teaching periods, across multiple campuses and caters for up to 120 participants annually.

A sustainable approach to eLearning is presented as an integral part of this program. Through the integration of a pre-program reflective online activity, the during-program seminar presentation, large and small group discussions, and the post-program follow-up activities, discussions about emerging technologies, theoretical issues, practical concerns, and pedagogical frameworks raise the awareness of the need for appropriate eLearning approaches. As participants undertaking this program usually do so in their first year of teaching (if neophyte lecturers) then the information and discussions occur in a timely manner to help them adjust to their new environment. In addition research papers, reading materials and useful resources, such as the Teaching and Learning with ICT website [http://www.itl.usyd.edu.au/T&LICT/] are analysed and incorporated into discussions on their applicability to eLearning. Both the 3-day Principles and Practice of University Teaching and Learning program and the eLearning Beginner's Workshops can be categorised as 'upskilling' the professional qualifications of academics. However, both are only the first step along the legitimising pathway as they are pre-requisites for future formal study. In the following section the first element of the legitimising pathway is discussed.

Legitimising pathway — Graduate Certificate in Educational Studies (Higher Education)

The 3-day Principles and Practice of University Teaching and Learning program articulates with the Graduate Certificate in Educational Studies (Higher Education) offered on a part-time basis annually in which a student-centred approach and scholarly teaching are emphasised. This degree (offered by the ITL through the Faculty of Education and Social Work) focuses on teaching and learning and although previously voluntary in nature, is now often mandated in faculty appointment processes. The emphasis of the degree is on improving student learning rather than on instructional methods and aims to provide university teachers with opportunities to reflect on educational theory and student learning research from the perspective of their own teaching experiences through the scholarship of teaching and learning and builds upon the work of recognised authors in the field of higher education (see, for example, Biggs, 2001; Brookfield, 1995; Ramsden, 1992; Tight, 2003; Rowland, 2000).

The Graduate Certificate further models the integrated approach to using emerging technologies and encourages peer observation, communication and support in reflective environments that demonstrate clear links to effective teaching and learning. Increasingly the graduate units integrate appropriate pedagogical uses of educational technologies to support the eLearning processes. Each unit in the Graduate Certificate program integrates the unit outcomes through eLearning approaches, namely: a website that accesses online discussions, supplementary course information, e-mail, assignment submission, and electronic access to readings via the Library's online reading service and developmental items such as access to interactive video resources, chat rooms, etc. Assessment is aligned with unit outcomes and individual projects identified by participants can often take the form of Teaching Improvement Fund (TIF) grant applications designed to enhance integration of teaching and technology or, more recently, projects that lead participants towards the design of teaching portfolios. The Graduate Certificate in Educational Studies (Higher Education) articulates with the Graduate Diploma units and Masters level units in Higher Education and further supports the continuing professional development of academics.

Legitimising pathway — Master of Education (Higher Education)

The next stage of the legitimising pathway, a Masters unit in eLearning validated by the Academic Board of the University, recognises the development of academic eLearning proficiencies as an acknowledged academic activity. Academics who have completed the 3-day Principles and Practice of University Teaching and Learning program and eLearning Beginner workshops can progress to this postgraduate unit *Developing Flexible Learning Environments*. This multi-modal unit has two purposes: it is an upper-level unit in the Master of Education (Higher Education) offered by the ITL in conjunction with the Faculty of Education and Social Work.

This unit also functions as a further opportunity for academics interested in upskilling their approach to the development of flexible learning environments. The former attracts fees whilst the latter is free of charge to academics of the University. The former also has the pre-requisite of completion of the Graduate Certificate in Educational Studies (Higher Education).

The Masters-level unit in effect offers the ideal choice for professional development, as academics originally undertaking it for upskilling can retrospectively change their enrolment and count it credit towards a post graduate degree (upon satisfactory completion of assessment elements).

The unit enables participants to become skilled developers of student-centred flexible learning environments that are appropriate for a research-intensive institution that values active learning and a research-led learning experience. Flexibility is the key to the unit with the interactive mix of face-to-face classes, video conferencing sessions, online interactions, individual and group work in a project based environment. The learning commitments include a blend of tutorial and on-line learning and development sessions. One of the most important aspects of the experience is the development by the participants of their own website which requires significant effort and time on their part as the process combines theory, technical literacy, imagination, research and creativity. Self-reflection activities and peer feedback build on the reflective approach to support the participants in their sharing and learning from each other in collaborative environments (Andresen, 1995). Key questions asked of the eLearning approach used in the unit include items focused on the constructive alignment approach to teaching and learning (Biggs, 2001); the promotion of self-directed learning and increased student autonomy (Laurillard, 2002); the 'pedagogical re-engineering' involved in the change in online pedagogy from a teacher-centred one to one focused on learner activity (Collis & Moonen, 2001); and the debate about assessment design in online environments (McLoughlin & Luca, 2001). The course follows a five-stage online development cycle: decide, design, develop and trial, learn, and evaluate (Ellis & Moore, in press). Deciding whether or not to include eLearning in the design of a unit of study; designing, developing and trialing processes for materials and activities on the unit of study website; learning and teaching with the unit of study website complementing the face-to-face experience, and, evaluating the whole learning experience, including the students' use of the unit of study website, are core elements of the development cycle.

Evaluation of the aADePT is regular and ongoing. For example, the unit *Developing Flexible Learning Environments* is regularly evaluated from quantitative and qualitative perspectives. The standard University quantitative questionnaire of seven questions ranging from clarity of learning outcomes and expected standards, teaching quality, generic attributes, workload, assessment, relevance and overall satisfaction level is implemented at the end of each semester. Sample comments received include; "Strongly congruent with outcomes — highly relevant (to my) work"; "Resources were great and I liked that they were concise" and "the discussion board postings and the face-to-face support were very valuable." Other comments indicate areas for improvement in timing; such as "The research was too early in the program" and "The pace was a little slow in some of the face-to-face sessions." Many participants comment that the unit completes their 'development circle', "I have something to show for the time spent and a greater understanding of the process". Evaluation is also integrated into every workshop and higher education unit through systematic ongoing evaluation processes that assist the teaching staff in the planning for future iterations.

Integrating academic program pathways from a teacher's perspective

How then do the academics integrate their eLearning experiences along the two pathways? The following figure (Figure 2) demonstrates the different levels of eLearning experiences of academics as they move from the upskilling pathway to the legitimising pathway. Academics are introduced firstly to the experience of eLearning as a student in the 3-day Principles and Practice of University Teaching and Learning program. They extend and deepen experience of eLearning as graduate students in the Graduate Certificate level then, at the Masters unit, they learn how to become designers of these experiences. For some academics these eLearning experiences culminate as they undertake their own research into learning how students use eLearning as part of their own doctoral studies. It is often acknowledged that for many academics the experience of becoming a learner at postgraduate level is not easy as "it demands real commitment and can exact a considerable toll" (Andresen, 1995, p. 50).

The upskilling and legitimising pathways provide flexible timely options for academics to investigate their approach to managing educational technologies. By embedding these pathways within the learning, innovation and research focus, academics are able to progressively adopt and adapt their professional development in a collaborative environment.

Many universities are now signaling increasing emphasis on quality of learning and teaching. The recognition for and credit towards improving professional qualifications will help to embed relevant strategies for academic development programs within cultural environment in which academics work and learn. As Reid (2002) argues universities should openly encourage eLearning initiatives that further support the sharing of knowledge about how to manage the transition to using educational technologies (Reid, 2002). This support can be accompanied by policy and funding frameworks that raise the profile of eLearning within faculties and acknowledge the importance of 'getting it right' and taking the time to talk about, listen to and share ways of managing eLearning appropriately for student experiences. This will take time as institutions learn from new practices and staff grow in their understanding of these integrated options for academic development.
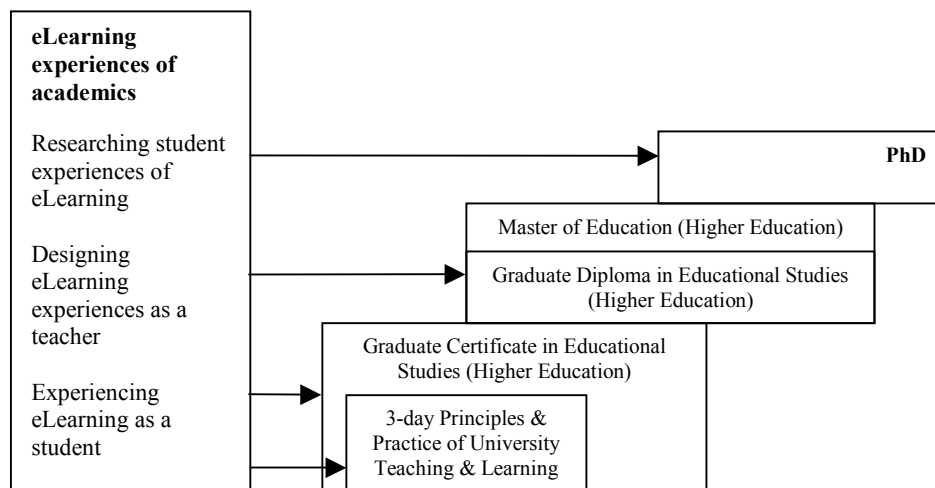

Figure 2: Integrating eLearning experiences of academics

Conclusion

University teachers are likely to be encouraged to integrate eLearning into their approaches to teaching if their institutions are willing to value the knowledge necessary to integrate eLearning successfully. Firstly, the right type of support needs to be available for busy teachers so that they can avail themselves of it in ways that integrate with their other duties. However, this is insufficient in and of itself. Universities need to also acknowledge the scholarly value of eLearning knowledge for the quality of the student experience. One way of doing this is to articulate preliminary workshops on eLearning with scholarly programs, such as the one described in this paper. In this way, such programs can provide courses designed to improve approaches to designing and teaching using eLearning. This will help teachers in their attempts to balance their work/life demands becoming more adept (aADePT) in this process. This embedded and supported approach provides academics with professional development, practical skills and raises the legitimacy of eLearning in a context that might otherwise not acknowledge it.

References

Alexander, S., & McKenzie, J. (1998). *An evaluation of information technology projects for university learning.* Canberra: Department of Employment, Education, Training and Youth Affairs.

Andresen, L. (1995). Accredited courses in teaching and learning. In A. Brew (Ed.), *Directions in staff development* (pp. 36–50). Buckingham, UK: The Open University Press and the Society for Research in Higher Education.

Applebee, A., Ellis, R., & Sheely, S. (2004). Developing a blended learning community at the University of Sydney: Broadening the comfort zone. In R. Atkinson, C. McBeath, D. Jonas-Dwyer, & R. Phillips (Eds.), *Beyond the comfort zone: Proceedings of the 21st ascilite conference* (pp. 458–467). Perth, 5–8 December. Retrieved from http://www.ascilite.org.au/conferences/perth04/procs/applebee.html

Asmar, C. (2002). Strategies to enhance learning and teaching in a research-extensive university. *The International Journal for Academic Development, 7*(1), 18–29.

Bates, A. W. (2000). *Managing technological change: Strategies for college and university leaders.* San Francisco: Jossey Bass.

Biggs, J. (2001). The reflective institution: Assuring and enhancing the quality of teaching and learning. *Higher Education, 41,* 221–238.

Boud, D. (1995). Meeting the challenges. In A. Brew (Ed.), *Directions in staff development* (pp. 203–213). Buckingham, UK: The Open University Press and the Society for Research in Higher Education.

Boud, D. (1999). Situating academic development in professional work: Using peer learning. *International Journal for Academic Development, 4*(1), 3–10.

Boud, D., & Prosser, M. (2002). Appraising new technologies for learning: A framework for development. *Educational Media International, 39*(3/4), 237–245.

Brew, A. (Ed.). (1995). *Directions in staff development.* London: The Society for Research into Higher Education and Open University Press.

Brookfield, S. (1995). *Becoming a critically reflective teacher.* San Franscisco: Jossey Bass.

Collis, B., & Moonen, J. (2001). *Flexible learning in a digital world: Experiences and expectations.* London: Kogan Page.

Collis, B., & van der Wende, M. (2002). *Models of technology and change in higher education: An international comparative survey on the current and future use of ICT in higher education.* Twente: CHEPS (Centre for Higher Education Policy Studies).

Ellis, A., O'Reilly, M., & Debreceny, R. (1998). Staff development responses to the demand for online teaching and learning. Paper presented at ascilite98, *Proceedings from the 15th annual conference of the Australasian Society for Computers in Learning in Tertiary Education*, Wollongong, pp. 191–201.

Ellis, R., & Moore, R. (in press). Learning through benchmarking: Developing a relational, prospective approach to benchmarking ICT in learning and teaching. *Higher Education.*

Goodyear, P. (2005). Educational design and networked learning: Patterns, pattern languages and design practice. *Australasian Journal of Educational Technology, 21*(1), 32–101.

Higher Education Funding Council for England. (2005). *HEFCE strategy for e-learning.* London: Joint Information Systems Committee, Higher Education Academy.

Jackson, K, & D'Alessandro, N. (2004). Migrating to a new institution-wide learning management system: Challenges for staff development. In R. Atkinson, C. McBeath, D. Jonas-Dwyer, & R. Phillips (Eds.), *Beyond the comfort zone: Proceedings of the 21st ascilite conference* (pp. 458–467). Perth, 5–8 December. Retrieved from http://www.ascilite.org.au/conferences/perth04/procs/jackson.html

Kirkwood, A., & Price, L. (2005). Learners and learning in the twenty first century: What do we know about students attitudes towards and experiences of information and communication technologies that will help us design courses? *Studies in Higher Education, 30*(3), 257–274.

Laurillard, D. (2002). *Rethinking university teaching: A framework for the effective use of educational technology* (2nd ed.). London: Routledge.

MacKenzie, N., & Staley, A., (2000). Online professional development for academic staff: Putting the curriculum first. *Innovations in Education and Teaching International, 38*(1), 42–53.

McLoughlin, C., & Luca, J. (2001). Quality in online delivery: What does it mean for assessment in e-learning environments? In G. Kennedy, M. Keppell, C. McNaught, & T. Petrovic (Eds.), *Meeting at the crossroads: Proceedings of the 18th annual conference of the Australian Society for Computers in Learning in Tertiary Education* (pp. 417–426). Melbourne: Biomedical Multimedia Unit, The University of Melbourne.

McNaught, C., & Vogel, D. R. (2004). The converging streams of globalization and eLearning: Stretching the comfort zone. In R. Atkinson, C. McBeath, D. Jonas-Dwyer, & R. Phillips (Eds.), *Beyond the comfort zone: Proceedings of the 21st ascilite conference* (pp. 637–646). Perth, 5–8 December. Retrieved from http://www.ascilite.org.au/conferences/perth04/procs/mcnaught.html

Midkiff, S. DaSilva, L. & Plymale, W. (2002). Changing roles in course design, development and delivery for web-based distance learning: A case study. *Proceedings of the 2002 ASEE/SEFI/TUB Colloquium.* The American Society for Engineering. Retrieved May 25, 2005, from http://www.asee.org/conferences/international/papers/dasilva.pdf

O'Reilly, M., Ellis, A., & Newton, D. (2000). *The role of university web pages in staff development: Supporting teaching and learning online.* Paper presented at *The Web: Communication and Information Access for a New Millenium: Proceedings of AusWEb2K, Sixth Australian World Wide Web Conference* (pp. 222–238), Cairns, Australia.

Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching: The experience in higher education.* Buckingham, UK: Society for Research into Higher Education and Open University Press.

Ramsden, P. (1992). *Learning to teach in higher education.* London: Routledge.

Reid, A. (2002). Is there an "ideal" approach for academic development? *Spheres of influence: Ventures and visions in educational development.* Retrieved from http://www.csd.uwa.edu.au/iced2002/publication/Anna_Reid.pdf

Rowland, S. (2000). *The enquiring university teacher.* Buckingham, UK: Open University Press and the Society for Research in Higher Education.

Segrave, S., Holt, D., & Farmer, J. (2005). The power of the 6^{three} model for enhancing academic teachers' capacities for effective online teaching and learning: Benefits, initiatives and future directions. *Australasian Journal of Educational Technology, 21*(1), 118–135.

Shannon, S., & Doube, L. (2004). Valuing and using web supported teaching: A staff development role in closing the gaps. *Australasian Journal of Educational Technology, 20*(1), 114–136.

Steel, C. (2004). Establishing a zone where technology innovation is supported. In R. Atkinson, C. McBeath, D. Jonas-Dwyer, & R. Phillips (Eds.), *Beyond the comfort zone: Proceedings of the 21st ascilite conference* (pp. 865–874), Perth, 5–8 December.

Tight, M. (2003). *Researching higher education: Issues and approaches.* Buckingham, UK: Society for Research into Higher Education and Open University Press.

Valcke, M. (2004). ICT in higher education: An uncomfortable zone for institutes and their policies. In R. Atkinson, C. McBeath, D. Jonas-Dwyer, & R. Phillips (Eds.), *Beyond the comfort zone: Proceedings of the 21st ascilite conference* (pp. 865–874), Perth, 5–8 December. Retrieved from http://www.ascilite.org.au/conferences/perth04/procs/valcke-keynote.html

Weaver, D., Button, Y., & Gilding, A. (2002). Implementation of a learning management system using an integrated approach to professional development. *Proceedings of the 19th ascilite conference*, Auckland, New Zealand. Retrieved from http://www.ascilite.org.au/conferences/auckland02/proceedings/papers/151.pdf

Acknowledgments

Andrelyn C. Applebee
Institute for Teaching and Learning, Carslaw F07, The University of Sydney, Australia
Email: a.applebee@itl.usyd.edu.au; Phone +61 2 9351 5812

Kim McShane
Institute for Teaching and Learning, The University of Sydney, Australia
Email: K.McShane@itl.usyd.edu.au; Phone + 61 2 9351 4872

Stephen D. Sheely
Office of Pro-Vice-Chancellor (Learning and Teaching), The University of Sydney, Australia
Email S.Sheely@mail.usyd.edu.au; Phone + 61 2 9036 6213

Robert A. Ellis
Office of Pro-Vice-Chancellor (Learning and Teaching), The University of Sydney, Australia
Email: R.Ellis@itl.usyd.edu.au; Phone + 61 2 9351 3781