

Teaching the Lecturers: Academic Staff Learning About Online Teaching

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Developing online teaching skills can occur through involvement in learn-by-doing strategies, which incorporates informal, organic or need-driven strategies. Such processes are sometimes labeled as “bottom-up” staff development processes. In other contexts, teaching staff are formally directed to develop online teaching skills through a series of compulsory staff development workshops or courses. These approaches typically include “top-down” staff development processes. This paper describes how a group of tertiary teaching staff extended their on-campus and distance teaching repertoire of skills to include online teaching skills. In this case, the process of staff development began with collecting data about the concerns and practices of the teaching staff involved. An analysis of the data informed the development of a “middle-out” staff development strategy which comprised a mixture of informal and formal strategies, and acknowledged the ethos of the institution and the specific needs of the staff involved. This professional development program incorporated a group of 11 informal and formal strategies. This paper presents an analysis of the data that were gathered during this project alongside the professional development strategies that were developed as a result of this analysis.

Keywords: staff development, online teaching, online learning, online curricula

Introduction

Founded in 1897 as a tertiary training college for the Seventh-day Adventist Church in Australia, Avondale College of Higher Education has evolved into an institution offering government-accredited undergraduate and postgraduate degrees in art, theology, education, nursing, business and science. Distance education began with the development of coursework masters’ degrees which were largely taken by working professionals in education, ministry, nursing and management. For years, distance education at the college has operated in the traditional mode of mail-outs and on-campus intensive sessions. Some sectors of the college, in particular education, began to develop undergraduate units in a similar manner. However, it became increasingly clear that developments of e-learning were making the old system redundant and that a whole new market could be opened up by transferring to an online LMS (learning management system). Current and prospective students also began requesting the online study options. The college adopted the Moodle LMS and a concerted push was made towards moving all distance education units to the online environment. Along with the transferring of existing distance units, staff began to expand the range of course offerings, with the ambition of offering a part or all of selected degrees online. In addition, all staffs were required to develop various

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blended formats, including on-campus units that are enhanced by use of the online LMS and other units that are partly online and partly face-to-face. Every unit now has a minimum online presence which includes the unit outline and some student information, but it is commonly expanded to include assignment schedules and rubrics, lectures, resources, forums and the electronic submission and grading of assessment tasks.

This move to teaching in the online environment has required a significant paradigm shift for many staff, even those already involved in distance education. The process has been one of re-education to operate in cyberspace learning, overcoming both technical and ideological barriers to its effectiveness, with the latter being at least as important as the first. In the initial stages, some staff adapted to the new format by simply posting copies of lecture notes online, while others struggled to see how they could reproduce the richness of the interactions of face-to-face teaching—a recognized strength of Avondale’s education—in an online environment. Other lecturers with experience in distance education felt that when teaching the same unit to a face-to-face group and a distance education group simultaneously, they needed to create radically different units in order to achieve the same learning outcomes. Hence, the lecturer education program had to deal with various elements: transforming old teaching habits in both face-to-face and distance education contexts to suit the new environment, redefining a philosophy of education to acknowledge the merits and weaknesses of an online learning situation, developing a rationale that accommodated online learning and allowed it to blend successfully with traditional teaching methods and building a skill set that made lecturers confident in a cyberspace classroom.

The Nature of Professional Learning About Online Teaching

When staff engage in professional learning about online teaching, a range of consequences occur. They extend or develop their current beliefs and practices about online learning and online teaching, they reflect on their own teaching and they may even make instrumental change to their teaching in general as a result of what they learn about online learning (Matzen & Edmunds, 2007). However, these outcomes of professional learning are not without fallout. The processes associated with change and reflection can be both confronting and enlightening.

Professional learning programs about online teaching are frequently built upon the theories associated with capacity building (Fullan, 2000; Mitchell & Sackney, 2000; Youngs & King, 2002), adult learning (Knowles, 1990) and social learning (Bandura, 1986; 1993). In order to accommodate the recommendations from such learning theories, most professional learning programs for lecturers incorporate a range of strategies. Such variety also caters for the needs of lecturing staff with varied experience, motivations and skill levels.

In the modern higher education sector, lecturers often have the choice of engaging in a variety of professional learning activities that focus on extending their knowledge about online learning and their skills in online teaching. They may attend on-campus workshops, participate in online tutorials, listen to guest lecturers, and explore exemplar courses and converse with colleagues and mentors in informal discussions. As well as providing collegial settings for staff to achieve positive learning outcomes, some of these professional learning methods understandably cause staff to encounter periods of cognitive dissonance and cognitive conflict. Such experiences have been described as both “bumpy moments and joyful breakthroughs” (Northcote, Beamish, Reynaud, Martin, & Gosselin, 2010) and are often associated with lecturers reflecting on their identity as teachers. In her provocatively named article, *Shift Happens: Online Education as a New Paradigm in Learning*, Harasim (2000) suggested that the process of change associated with lecturers understanding the new online

learning environment was not always a smooth transition. So, when designing a professional learning program for lecturers to learn about online learning and teaching, the institution involved would be well advised to accommodate and support the lows and highs of the processes that lecturers experience on their journeys of learning about online teaching.

Professional learning can be a catalyst for change, “Technology can provide a context or reason for trying out a new instructional practice” (Matzen & Edmunds, 2007, p. 427). The very act of engaging in professional learning processes which involve an element of reflection can increase lecturers’ intentions to change their teaching practices for the better or explore improved ways to prepare for teaching, create learning resources and use appropriate technologies. The process of participating in professional learning activities may trigger lecturing staff to modify their practices not just to suit the new medium, but also improve the overall quality of student learning. Since many online learning tools provide opportunities for interaction between students and lecturers, feedback from students about their online experiences is often more forthcoming than that in earlier times when lecturers tended to take on the role of information provider, but not information receiver (Herrington & Standen, 2000).

Academic teaching staff often learn about online teaching through informal and incidental conversations with their colleagues (Coughlin & Kajder, 2009; Koch & Fusco, 2008). When the social aspect of professional learning is set alongside a focus on authentic teaching dilemmas, this practice-based approach can be useful to engage lecturers in the process of reflecting about their own practices as well as the practices of their colleagues (Bell & Gayle, 2009).

Effective professional learning programs about online learning would ideally include a component of ongoing reflection, in which lecturers are continually encouraged to evaluate specific aspects of their online teaching and course design practices. Bright (2007) suggested that lecturers should reflect on how their online teacher presence facilitated productive online learning for their students. Schön (1983) also espoused the value of combining reflection with practical working situations through the “reflection-in-action” process, suggesting that this process was more integral than learning in isolation from practice. Consequently, a professional learning program would be best to include opportunities for lecturers to converse and reflect informally about their own teaching practices, ongoing dilemmas, breakthroughs and challenges.

Lastly, in conjunction with the on-campus or online professional learning opportunities offered to staff and the subsequent reflective processes that lecturers engage in about online teaching, professional learning programs must also be well supported by institutional leaders (Olson, 2002; Youngs & King, 2002). Without this key ingredient, well-meaning and well-designed professional learning programs run the risk of failure. From the previous research (Northcote, Reynaud, Beamish, & Martin, 2010), the leadership and support of faculty and institutional leaders were recognized as a key success factor when guiding lecturers through the process of learning about online learning and teaching.

The Start: Threshold Concepts

Avondale has an established reputation for quality teaching which is reflected in various objective measures, such as student evaluation questionnaires and the Australian good universities guide. Quality teaching is a product of small classes and a culture of high-level pastoral care stemming from the college’s philosophy of holistic education (Avondale College of Higher Education, 2008). But, these teaching skills did not necessarily transfer well to an online environment. In particular, technical expertise varied widely from

sophisticated to rudimentary. In a questionnaire administered to staff in two faculties (Northcote et al., 2010), academic teaching staff showed higher levels of confidence about pedagogical issues than technical issues related to online teaching. At the same time, staff also expressed doubt over the ability of online learning to match the quality of the face-to-face experience. Findings from this study were used to inform the design of the professional learning program for staff in two faculties.

The professional development program for lecturers was essentially constructivist in nature, enabling staff to build upon the skills that they had already developed in both traditional and distance education, and in limited cases, with online learning (Matzen & Edmunds, 2007). Many of these existing skills could be classified as relating to course design, construction of assessment tasks and resource creation.

A preliminary study (Northcote et al., 2010) established the threshold concepts that most concerned the teaching staff. In order of importance, they were:

(1) Pedagogical: teaching style and role; learning quality; understanding of online learning; student engagement; atmosphere; interaction; and expectations;

(2) Technical: enrolment; assessment; course building; resource; student skills; software; and servers space and capacity;

(3) Resources: creation and use; student access; legality; use of practical equipment and tools; and accountability;

(4) Time: workload; and allocating time and managing time;

(5) Strategic issues: accountability; versioning of online units; and strategic plan of online units to be developed;

(6) Fear: developing new skills and acquiring new knowledge; new ideas; safety; and security.

The process of identification of the key threshold issues, which isolated the areas in which teachers had concerns and areas where they felt confident, informed the professional learning strategies.

The Journey: Implementation of Multiple and Transformative Professional Learning Strategies

The academic teaching staff at Avondale already held well developed on-campus teaching skills and many also possessed skills in teaching off-campus students through distance education programs. However, a move to teaching in the online environment posed a new challenge for these lecturers. In the research, we conducted last year to identify lecturers' concerns about this shift in teaching mode (Avondale College of Higher Education, 2008), then we found that the idea of teaching in an online environment resulted in some of the lecturers questioning the very essence of being a teacher. They had some questions, such as "How do I get over the 'masked persona' of the lecturer online?", "How do I transfer the richness of face-to-face?" and "How do I project my own personality effectively?". It became clear to the researchers involved in this work that the move to online teaching was not just associated with a change of intellectual understanding about online learning; and this move also presented lecturers with a personal and, at times, an emotional challenge that was often related to their identity as a teacher.

To help Avondale staff come to terms with the demands placed upon them, as they negotiated the teaching and learning challenges that they would encounter in the online environment, a professional learning program was implemented. Experience from other professional learning programs, in which academic teaching staff had developed knowledge and skills about online learning, suggested that multiple strategies were required

(Northcote & Huon, 2009a; 2009b). The strategies also needed to be varied to provide more flexible entry points for both new lecturers and lecturers who already had some online teaching experiences. Opportunities for a mix of informal and formal strategies were also required to meet the needs of lecturers at varied times throughout the semester.

The professional learning program the authors developed for the academic teaching staff was also informed by the research that conducted last year (Northcote et al., 2010) which clearly indicated that staff wanted to view examples of good practice and wanted to be able to practice their newly developing skills in immediately relevant contexts. As a result, we integrated many opportunities for staff to participate in practical workshops, using their own units as the basis for activities.

All in all, 11 separate professional learning strategies were developed and implemented across the college in 2010 (Northcote et al., 2010). Due to the iterative nature of the program, two additional strategies have been incorporated into the program in 2011 (see Table 1).

Based on the experiences of other similarly focused professional learning programs about online teaching, it was known that professional learning strategies should offer opportunities for staff to meet face-to-face as well as give them the resources and tools to enable them to work independently (Ellis & Phelps, 1999). Other researchers had also identified the value in situating professional learning programs within authentic contexts that encourage lecturers to use their own work-in-progress examples (Bell & Gayle, 2009).

Table 1

Strategies Involved in the Professional Learning Program About Online Teaching

| Type | | Strategy | Detail |
|-------------------------|----|---------------------------------|--|
| Face-to-face activities | 1 | Practical workshops | A series of practical workshops focus on both pedagogical knowledge and technical skills (see Figure 1). |
| | 2 | Informal conversations | These informal corridor chats provide academics with “just-in-time” advice and guidance from Moodle mentors. |
| | 3 | Consultations | One-to-one consultations encourage staff to develop skills and acknowledge the difficulties involved in online teaching. Consultations usually occur in the lecturer’s office. |
| Resources and tools | 4 | Online resources | Instructional resources are provided via the online LMS (moodle). Paper-based versions (booklets and handouts) are also available (see Figure 2). |
| | 5 | Examples | Demonstration of both of exemplars (to demonstrate best practice) and non-examples (to demonstrate mistakes or “what not to do” examples) of previously constructed online courses, resources and activities. |
| | 6 | Two-Minute Moodle weekly emails | These emails provide staff with instructions and examples of how to implement pedagogically sound online teaching practices (see Figure 3). |
| | 7 | Pedagogical guidelines | A set of pedagogical guidelines were developed to guide the design and development of online courses at Avondale, based on experts’ advice from various higher education educators (Anderson & Krathwohl, 2001; Biggs, 2003; J. Herrington, Oliver, & T. Herrington, 2007; J. Herrington, Oliver, T. Herrington, & Sparrow, 2000; Herrington, Oliver, & Reeves, 2003; Kerns et al., 2005; Salmon, 2004; Van Duzer, 2002). These pedagogical guidelines informed the development and structure of the self-evaluation rubric mentioned below. |
| | 8 | Self-evaluation rubric | A rubric of online teaching skills and knowledge (known as a MOOBRIC (rubric used in conjunction with Moodle, an online teaching platform)) which staff use to identify their current and projected skill levels (see Figure 4). |
| Strong leadership | 9 | Institutional support | Support from faculty deans and institution’s leaders for lecturers’ development of online teaching skills is ongoing (e.g., policies and funding). |
| | 10 | Unit targets | Within faculties, units are identified each year within a long term plan, for future development and delivery. |
| | 11 | Research focus | Faculty deans encourage staff to conduct and share research into online learning and teaching. |

| THEMES | TOPIC |
|---------------------------------|---|
| Getting started | Moodle basics @ Avondale: What is it, what are its main functions and what can it do for my students and me? How do I navigate through the College system? |
| | Method in the madness: Planning distance units |
| Active and interactive learning | Adding life to your distance unit: Designing activities that facilitate active learning |
| | Adding you to your distance unit: Increasing your "teacher presence" |
| | Get talking: Designing and creating forums for distance units |
| | Put the student first: Making the student experience a priority in distance units |
| | A reason for being and doing: The practicalities of pedagogy in distance units |
| | Digging deeper: Using online learning tools to facilitate higher order learning in distance units |
| Assessment and evaluation | Not just essays: Designing and creating assessment tasks for distance units |
| | Top notch quizzes: Designing and creating quizzes that promote learning |
| | Save time with online marking: Ways to use online tools to manage and streamline marking processes |
| | Giving and receiving: The secrets of feedback to improve teaching and learning in distance units |
| | Getting better and better: Improving distance units through evaluation cycles |
| Rich media | Get the picture: Using graphics to facilitate learning in distance units |
| | You heard it here: Using audio to facilitate learning in distance units |
| | Moving pictures: Using video to facilitate learning in distance units |
| | Making it move: Creating animated resources for distance units |
| Resources | Create and activate: Creating resources to facilitate active learning in distance units |
| | Don't reinvent the wheel: Using existing resources in distance units |
| | Copyright and copyleft: Using resources legally in distance units |
| Management | The "W" Word: Using online tools to prevent workload blowout |
| | Keeping on track: Monitoring student activity in distance units |

Figure 1. Workshop program.

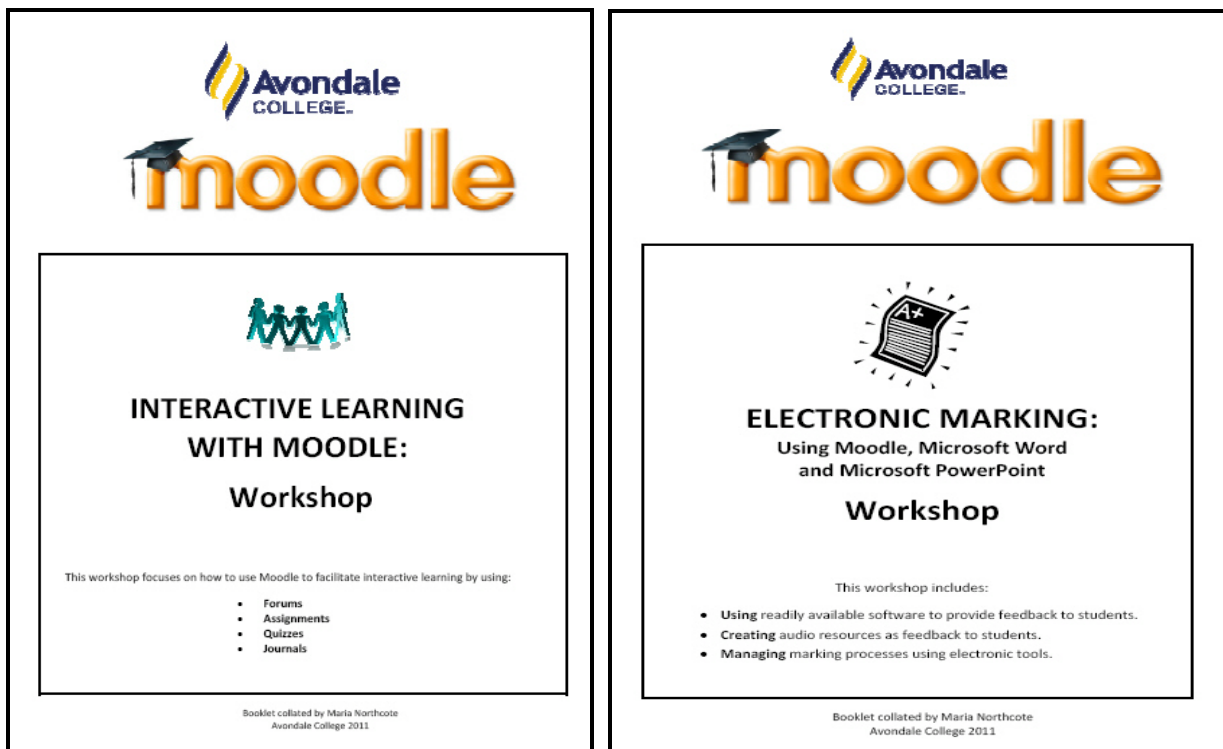


Figure 2. Examples of workshop booklets.

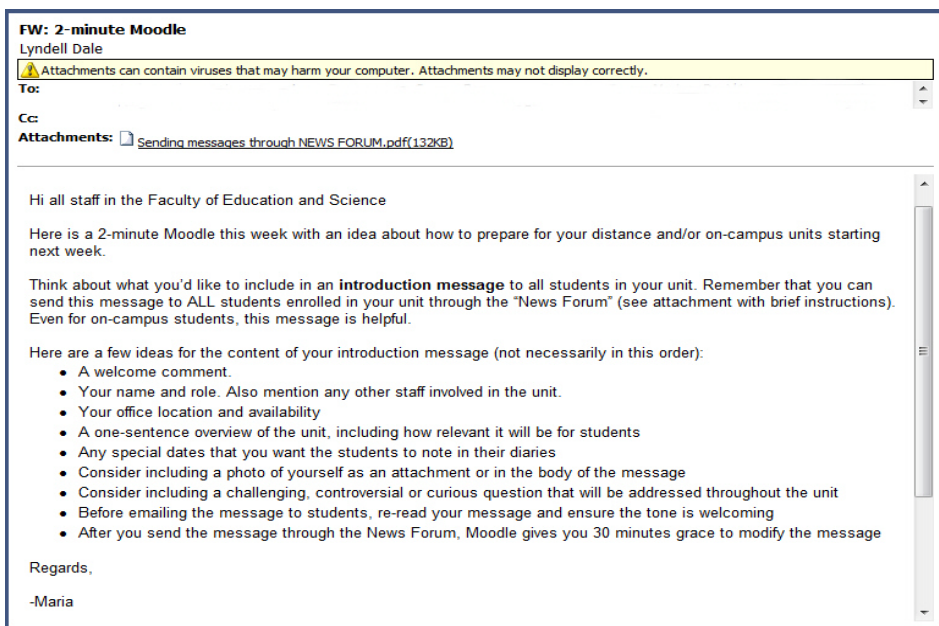


Figure 3. Example of a “Two-Minute Moodle” weekly email message.

| | | Muddler | Meddler | Moodler |
|-----|---------------------------------|---------|----------------------|---------|
| 1 | Pedagogical knowledge | | | |
| 1.1 | Learning activities | ← | Purpose | → |
| | | ← | Alignment | → |
| | | ← | Student-centeredness | → |
| | | ← | Engagement | → |
| | | ← | Variety | → |
| 1.2 | Assessment evaluation and | ← | Information | → |
| | | ← | Submission | → |
| | | ← | Variety | → |
| | | ← | Marking | → |
| | | ← | Feedback | → |
| | | ← | Evaluation | → |
| 1.3 | Communication and interaction | ← | Strategies | → |
| | | ← | Facilitation | → |
| | | ← | Community | → |
| | | ← | Expectations | → |
| | | ← | Monitoring | → |
| 1.4 | Support, guidance and mentoring | ← | Orientation | → |
| | | ← | Guidance | → |
| | | ← | Reflection | → |
| | | ← | Additional help | → |
| | | ← | Trouble-shooting | → |
| | | ← | Mentoring staff | → |
| | Overall | | | |

Figure 4. Rubric used by lecturers to self-evaluate online teaching skills in Moodle (MOOBRIIC).

Informed by this research of others and that of the authors' own online teaching professional learning program for staff includes 11 different strategies incorporating face-to-face activities, resources and tools, and strong leadership, as outlined in Table 1.

The content, design and timing of the workshops are under continual change, based on current staff needs and available resources.

Each of the strategies included above is linked with research processes and outcomes. For example, workshops include both "how-to" technological advice about how to manage various functions within the institution's LMS, i.e., Moodle, and research-informed recommendations for good practice. Research into the authors own practice and about the practice of other online teachers is integrated throughout the entire professional learning program.

The Future

Once the 11 professional development strategies outlined above continue to be fully implemented and evaluated over the next six months, it is anticipated that some modifications will be required to this program. The authors also plan to extend this program by designing and developing a blended professional development unit for staff about online learning and teaching using the current LMS (Moodle). Also, the authors are continuing to develop and trial the rubric (see Figure 4) based on the TPACK (technological, pedagogical and content knowledge) framework (Mishra & Koehler, 2006) that describes the types of knowledge required by teachers to work in a pedagogically sound way within a technology-rich environment. It is intended that the rubric will be used as a tool to assist teachers to reflect on their online teaching and course development skills, as online educators. There will be a continued exploration of the balance between "top-down" and "bottom-up" strategies to ensure that the institution's strategic aims are met and staff are included and consulted during the process.

Of particular interest is the development of more pedagogical approaches and resources that utilize rich media. There are a number of exciting directions that Avondale wishes to pursue in this area. Some staff can be quickly overwhelmed by some of the technical logistics that accompany this direction, so the authors are looking to increase the amount of technical support available to staff to facilitate the development of pedagogical approaches that utilize rich media for both communication and instruction.

Conclusions

As an institution of higher education, Avondale recognizes the importance and potential of online learning experiences for students. With Internet access being ubiquitous for the majority of the Australian population, online experiences tend to be the norm rather than the exception for most people. People now use the Internet to access information, perform commercial transactions, and increasingly for educational purposes. Younger generations of students seem to be particularly receptive to e-learning environments. As distance education has matured and e-learning approaches have become more sophisticated and better understood, there is a need for educators to develop a set of skills that are robust and sustainable.

To implement rich online environments, the professional learning opportunities of staff are particularly important. Staff can develop online teaching skills through involvement in learn-by-doing strategies that combine structured, informal and need-driven strategies. Avondale continues to monitor and balance the mix of available "top-down" and "bottom-up" strategies and has found the "middle-out" development strategy that incorporates informal and formal strategies to be optimum. This is important as this balance of strategies, while

reflecting the strategic intent of the institution, helps to establish a positive learning culture and impacts staff productivity and morale.

Avondale has always had a focus on meeting the needs of students and staff. The strategies reported in this paper have been successful in enhancing the online learning and teaching environment, continue to reinforce the ethos of the institution, and supports the specific needs of the staff involved. As we look back over the program, the authors are in a position to recommend them to you.

References

- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives*. New York, USA: Addison Wesley Longman Inc.
- Avondale College of Higher Education. (2008). *Avondale college strategic plan: 2008-2012*. Cooranbong, NSW: Avondale College.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117-148.
- Bell, A., & Gayle, M. (2009). Engaging professional learning in online environments. *Australasian Journal of Educational Technology & Society (AJET)*, 25(5), 700-713.
- Biggs, J. (2003). *Teaching for quality learning at university* (2nd ed.). Berkshire: The Society for Research into Higher Education and Open University Press.
- Bright, S. (2007). E-teachers at work: Exploring a process for reviewing e-teaching for ongoing professional learning. In *ICT: Providing choices for learners and learning* (pp. 71-74). *Proceedings ASCILITE Singapore*. Singapore.
- Coughlin, E., & Kajder, S. (2009). *The impact of online collaborative learning on educators and classroom practices*. San Jose, California: The Metiri Group and Cisco Systems.
- Ellis, A., & Phelps, R. (1999). Staff development for online delivery: A collaborative team-based action learning model. In J. Winn (Ed.), *Responding to diversity: The 16th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE)* (pp. 71-82). Brisbane.
- Fullan, M. (2000). The three stories of education reform. *Phi Delta Kappan International*, 81, 581-584.
- Harasim, L. (2000). Shift happens: Online education as a new paradigm in learning. *Internet and Higher Education*, 3, 41-61.
- Herrington, J., Oliver, R., & Herrington, T. (2007). *Authentic learning on the web: Guidelines for course design*. Faculty of Education: University of Wollongong.
- Herrington, J., & Standen, P. (2000). Moving from an instructivist to a constructivist multimedia learning environment. *Journal of Educational Multimedia and Hypermedia*, 9(3), 195-205.
- Herrington, J., Oliver, R., & Reeves, T. C. (2003). Patterns of engagement in authentic online learning environments. *Australian Journal of Educational Technology*, 19(1), 59-71.
- Herrington, J., Oliver, R., Herrington, T., & Sparrow, H. (2000). Towards a new tradition of online instruction: Using situated learning theory to design web-based units. In *ASCILITE 2000 Conference Proceedings* (pp. 1-13).
- Kerns, B., Elhouar, S., ... Wolffe, R. (2005). *Ten principles of effective teaching and practical examples for the classroom and blackboard*. Retrieved July 6, 2008, from http://blackboard.bradley.edu/faculty/Recommended_Ef_Use_BB/Recommended_EffUseOfBb.pdf
- Knowles, K. G. (1990). *The adult learner: A neglected species*. Houston, Texas: Gulf Publishing.
- Koch, M., & Fusco, J. (2008). Designing for growth: Enabling communities of practice to develop and extend their work online. In C. Kimble, & P. Hildreth (Eds.), *Communities of practice: Creating learning environments for educators* (Vol. 2, pp. 1-23). North Carolina: Information Age Publishing.
- Matzen, N. J., & Edmunds, J. A. (2007). Technology as a catalyst for change: The role of professional development. *Journal of Research on Technology Education*, 39(4), 417-430.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054.
- Mitchell, C., & Sackney, L. (2000). *Profound improvement: Building capacity for a learning environment*. Lisse, Netherlands: Swets and Zeitlinger Publishers.

- Northcote, M., & Huon, G. (2009a). From small to large hits: Spreading the online message to academic and administrative staff via strategically-targeted development activities. Paper presented at *the International Conference on Information Communication Technologies in Education (ICICTE)*. Corfu, Greece, July 9-11, 2009.
- Northcote, M., & Huon, G. (2009b). Giving fishing lines is better than giving fish: A capacity-building approach to educational resource development. Paper presented at *the EDUCAUSE Australasia: Innovate, Collaborate and Sustain, Perth Convention Centre*. Perth, Western Australia, May 3-6, 2009.
- Northcote, M., Reynaud, D., Beamish, P., & Martin, T. (2010). Transforming online curricula, transforming staff (Poster). Paper presented at *the ASCILITE (Australasian Society for Computers in Learning in Tertiary Education)*. Retrieved from <http://www.ascilite.org.au/conferences/sydney10/Ascilite%20conference%20proceedings%202010/Northcote-poster.pdf>
- Northcote, M., Beamish, P., Reynaud, D., Martin, T., & Gosselin, K. (2010). Bumpy moments and joyful breakthroughs: The place of threshold concepts in academic staff development programs about online learning and teaching. Paper presented at *the 3rd Biennial Threshold Concepts Symposium: Exploring Transformative Dimensions of Threshold Concepts*. Retrieved from http://www.thresholdconcepts2010.unsw.edu.au/Abstracts/NorthcoteM_etal.pdf
- Olson, C. A. (2002). Leadership in online education: Strategies for effective online administration and governance. In K. E. Rudestam, & J. Schoenholtz-Read (Eds.), *Handbook of online learning: Innovations in higher education and corporate training* (pp. 237-256). Thousand Oaks, C. A.: Sage Publications.
- Salmon, G. (2004). *E-moderating: The key to teaching and learning online* (2nd ed.). London, New York: RoutledgeFalmer.
- Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Van Duzer, J. (2002). *Instruction design tips for online learning*. Retrieved October 9, 2008, from <http://www.csuchico.edu/tlp/resources/rubric/InstructionalDesignTips.pdf>
- Youngs, P., & King, M. B. (2002). Principal leadership for professional development to build school capacity. *Educational Administration Quarterly*, 38(5), 643-670.