

Blurring of the boundaries: Innovative online pedagogical practices in an Australian Faculty of Education

Jerry Maroulis and Shirley Reushle
University of Southern Queensland

The Faculty of Education at the University of Southern Queensland (USQ) has developed a strong reputation in delivering high quality education, especially in the area of online pedagogical practices. However, online education, once seen as the domain of postgraduate and distance education, has been subsumed into undergraduate on-campus teaching. The authors present their own vignettes from the Faculty of Education Online Pedagogical Practices (OP²) report to illustrate best practice within courses and other projects managed by the Faculty, and conclude by providing a number of recommendations for future online practices at USQ.

Introduction

The Nelson (2004) report *Backing Australia's future* has focused national attention on the commitment of Australian universities to teaching and learning. In response to this and other local, national and transnational imperatives in tertiary education, a team from the Faculty of Education at the University of Southern Queensland (USQ) prepared a report on online pedagogical practices (OP²) (Kehrwald et al., 2005). It raises a number of critical issues for regional Australian universities such as USQ in meeting the needs of contemporary Australian society including lifelong learning, workplace learning, open and flexible learning, adult and continuing education, and the impacts of globalisation on education.

The OP² report is a product of ongoing discussions in the faculty related to the role of networked computing and communications technologies in higher education. The report is informed by several sources including reflection on several years of experience using technology to enhance the provision of education, evidence collected from recent evaluations of online programs, and current notions of best practice in online learning and teaching.

Some theoretical foundations of online learning and teaching are identified along with the characteristics of sustainable, quality, online learning. Among the key ideas, is the need to consider the relationships among various systems associated with online learning within an organisational context, the active and social nature of learning online, and the alignment with good educational practice in other contexts. A series of vignettes developed by the authors will be used to illustrate examples of best practice within courses and other projects managed by the faculty. These views of good practice are supported by research, reflection and student evaluations. Finally, five propositions, along with a number of recommendations are provided as the basis for developing and extending online education in the Faculty of Education and informing future online practices at USQ.

Characteristics of sound online practice at USQ

As online teaching and learning has become more widespread, practitioners at USQ have sought to develop more cohesive understandings of teaching and learning activity in context. This includes an understanding of the theory underpinning effective online pedagogy, theoretical views of learning,

and examples of effective online learning and teaching in context. Several characteristics of sound online pedagogy have been identified in the OP² report. Due to the flexible interactive communication they afford, networked computing technologies lend themselves especially well to the application of particular theories of learning (Garrison, 1993; Jonassen, Peck, & Wilson, 1999). These include approaches based on constructivist philosophies (Jonassen, 1999; von Glasersfeld, 1995) such as situated learning (Hung & Chen, 2001; Lave & Wenger, 1997; Wilson & Meyers, 2000) and social learning theories which underpin approaches such as communities of practice and learning communities (Barab & Duffy, 2000; Wenger, 1998). These theories are consistent with a philosophical position based on individual and social construction of meaning, and localised context-dependent realities. Such a position values personal perspectives on meaning and places importance on *learning* over education (or teaching). The resulting pedagogy is active and social. It relies on learner-centredness in learning programs (Land & Hannafin, 2000), use of rich, authentic learning contexts (Wilson & Meyers, 2000), and goal-directed activities which support personal perspectives on meaning (Brown & Duguid, 2000; Jona, 2000). Rather than focusing on transmission of content or even assignment of tasks for learners to undertake, these learning environments are concerned with what *learners actually do* (Steeple, Jones & Goodyear, 2002) and how learner activity contributes to learning based on personal meaning making (Goodyear, 2002; Mayes, 2001). This pedagogy places the learner at the focal point of learning tasks and requires individual and collaborative activity that is goal-directed, practical and authentic. The learning activity which results becomes integrated with the learners' work, leisure and personal life, entwined with authentic everyday activity. This offers more opportunities for natural learning (Brown & Duguid, 2000; Kimball, 2001) and assists in the promotion of lifelong and lifewide learning.

Examples of good practice in the Faculty of Education

The OP² vignettes illustrate the faculty's good/better/best practice regarding the contribution to online learning in a range of educational settings. These vignettes are situated in a range of contexts: the fully online environment, the move from correspondence to networked learning, blended environments, cross-campus offerings, consultancies and distributed professional learning communities, again emphasising the shift of online education across pedagogical and geographical boundaries, and the issue of evaluation of programs.

Vignette 1: Using De Bono's Thinking Hats for computer-mediated, authentic problem solving

This vignette describes how learners in a fully online, postgraduate course, FET8601: Teaching Online: Strategies and Tactics, used a metaphorical teaching method framework for lateral and creative thinking developed by Edward de Bono (the Six Thinking Hats technique). This framework enabled the learners to participate in online debate and view a problem from multiple perspectives.

One such scenario involved exploring the attitudes of first year undergraduate pre-service educators to online learning and teaching in 21st-century education. This activity was not a mandatory requirement of the online course. Members of the online class chose to participate for the following reasons:

1. Explore innovative ways of teaching and learning online.
2. Explore online debating viewing a problem from multiple perspectives (Belfer, 2001).
3. Inform the faculty about pre-service educators' attitudes to online education.

Learners were encouraged to embrace the principles of adult learning and constructivism and behave as collegial partners in the learning process - not as instructor and learner. The 'rules of engagement' aimed to reflect an earlier netiquette (online etiquette) activity conducted in the online course and Belfer's (2001, p.113) statement where the aim was to embrace 'communication in a state of resonance where there is respect, tolerance and opportunities for the individuals to pursue their personal interests'.

The activity commenced with an introductory synchronous chat session followed by six days of asynchronous discussion to reflect each individual 'hat' This asynchronous activity began with an outline of the case or problem and concluded with a smaller group of four students and the facilitator working collaboratively over a period of a month to prepare a report for the faculty (Birks et al., 2004).

Vignette 2: Modelling the principles of sound instructional design

FET5601: Instructional Design for Flexible Learning is a foundation, fully online, postgraduate course. It aims to provide learners with knowledge of the principal and commonly adopted theories and processes of designing instruction for flexible learning environments, and the ability to apply these theories and processes to practice.

The main objective is to enable participants to design flexible programs within their own work situation while providing a sound theoretical base to inform their design, development and implementation decisions. The teaching and learning principles are modelled throughout the progress of the course and include:

1. Development of a supportive and productive working environment where participants can access, comment, and interact, whilst their progress is monitored.
2. Focus on the concept of situated learning where the knowledge learnt is applied in relevant learner contexts.
3. Authentic activity and assessment requires participants to develop an instructional program (or part thereof) for use in their own work context. The facilitator provides meaningful and timely feedback on activities and assessment items.
4. Interactive learning with the content, their peers, 'experts' in the field and their facilitator.
5. Use of reflective practice in relation to the learning acquired through their instructional program.

Formal student evaluation data collected in 2004 revealed strong support for the course achieving the stated outcomes. Responses reflect strong appreciation of pedagogical principles related to collaboration, interaction, authentic tasks, social presence and reflective practice, and the importance of a combination of flexibility and structure. Despite the learner-centred focus, this feedback emphasises the important role of the teacher/facilitator. In response to the question, 'What did you find were the most helpful/effective aspects of this course?':

- Developing an online community of learners which allowed interaction and exchange of thoughts and ideas.
- The emphasis on collaborative learning, that is, use of discussion activities posted to group areas (including wrapper and self-assessment activities) facilitated group discussions.
- The interaction between course participants, and knowing that people are willing to share ideas and resources. The modular sequencing of subject matter, and specific dates for completion.
- The announcements and emails which I found to be extremely motivating during a hectic work period. They are primarily the reason that I was able to keep going.
- The resources (both within the course material, the ones we were directed to, the ones we found for ourselves, and those discovered by fellow students) were invaluable. Useful modelling for how to run an online programme at post-grad level has provided further experience for me to draw on when discussing communication techniques with teaching staff embarking on online delivery for the first time.
- Appreciated the flexibility to adapt the course to my own teaching context.

Vignette 3: Flexibly delivered on-campus course

EDU2441: Environmental Education is one of the first flexibly delivered on-campus undergraduate courses offered at USQ. It was developed in flexible delivery mode in 1998 to cater for cross-campus (Toowoomba and Wide Bay) delivery.

The course provides students at both campuses with choices and flexibility about how they wish to engage with the course materials. This approach accommodates the changing demographics of the USQ student body undertaking pre-service teacher education, with increasing numbers of mature-aged students and many students with part-time work demands. Traditional content delivery and rigid timetabling placed additional pressures on the limited time that students have available to balance their work, family and study demands. Consequently, the flexibly-delivered nature of EDU2441 has been embraced by the student cohort.

The course content is provided in various formats – PowerPoint lectures (non-audio), internet PowerPoint lecture-on-demand which is audio-enhanced, audiotaped and videotaped lectures, and website resources. In addition, electronic discussion groups and video-conferencing supplement the normal face-to-face lectures and tutorials.

The course utilises a constructivist approach to the learning, especially relative to the main assessment task where students create environmental learnscapes in school or council grounds. The schooling community at both Toowoomba and Wide Bay have embraced the student work and, in many cases, have developed these learnscapes on their school grounds.

Vignette 4: Maximising the online experience in an on-campus course

PRI1491: Content Studies for the Middle Years is an online/web-enhanced first-year course offered for the first time in 2004 in the new BEd (Primary and Middle Schooling) program. With enrolments at over 220 students, this course is designed to provide a 'content refresher' in a number of content areas relevant to the Middle Years of Schooling (Years 4–9).

Students complete six modules that include Science, Expressive Arts, Mathematics, Information Technology, SOSE and Health. Experienced middle-school teachers were recruited to develop each of the course content areas. The materials for the six modules are recorded using Macromedia Breeze, to provide higher quality, editable audio-enhanced PowerPoint content material.

The first week of the course is the only formal time that students have face-to-face contact with teaching staff. The remainder of the course is undertaken fully online via WebCT Vista. Tutorials largely take place via electronic discussion areas and chat rooms for each content module and include relevant electronic readings. Additional 'support' tutorials are arranged as required by the student group. Assessment is undertaken both online in the form of CMA quizzes at the end of semester and via a research paper exploring the significance of pedagogical content knowledge in the middle years.

There are many reasons for the structure of this course development:

1. Provide pre-service teachers with a taste of online learning environments to encourage them to appreciate, through experiential learning, the strengths and weaknesses of this approach.
2. Allow pre-service teachers the opportunity to reflect on this approach and to start brainstorming what the possibilities may be for their own future classrooms.
3. Engage pre-service teachers with educational technology in an attempt to familiarise and demystify concerns about the use of computers.
4. Allow students to address some of Education Queensland teacher ICT standards.
5. Provide equity between both the Toowoomba and Wide Bay students as all on-campus students experience the same learning environment.
6. Allow students to experience different electronic forms of communication (synchronous and asynchronous).

Finally, the design and pedagogy of PRI1491 is quite radical and thus represents an important benchmark for the faculty. It provides valuable insights into understanding the issues associated with online delivery for on-campus undergraduate pre-service teachers. This will help to inform our practice and consider the possibilities of other Breeze recorded materials for use with both Toowoomba and Wide Bay students and at our new USQ campus at Springfield, Brisbane (scheduled to commence in 2006).

Vignette 5: The Singapore experience

This vignette describes Design and Facilitation of e-Learning, an online course with a professional development focus, conducted as a consultancy and not part of a USQ-accredited program. This course was designed to equip participants with the relevant knowledge and skills to meet the needs of their own students as they move into the e-learning environment. The course was offered to the Ngee Ann Polytechnic, Singapore in 2002 to thirty-one polytechnic teachers, and again in 2003 to a cohort of twenty-six polytechnic teachers at the same institution. As an authentic learning environment, the course has a problem-based, project-based approach. The key design features are interactive online activities, key professional readings, active online discussion forums and the client's negotiated work-based projects. The practical application of theories and concepts developed in the readings and discussion forums are demonstrated through the use of exemplars drawn from post-compulsory contexts. The learning and teaching philosophy underpinning the design of this course reflects those characteristics discussed earlier in this paper.

Key elements of the course include:

1. Orientation workshop visit by USQ personnel to client institution (three days).
2. Facilitated online course for ten weeks (approximately four hours 'contact' per week).
3. Ongoing online interaction between participants and USQ teaching staff through discussion groups, synchronous chat and email facilities. The consultative nature of the course means that the e-learning facilitators from USQ are involved in giving specific coaching and are available for consultation with the participants on their specific project work.
4. Face-to-face or videoconference session with USQ at the end of the course to enable participant presentations of completed course materials.

A peer-learning partnership option (Eisen, 2001) is offered to client institutions. This involves members of the client institution, who have relevant experience, providing support in the form of:

- local contextual information and workplace examples,
- online and face-to-face forum activity including sharing of ideas and experiences, and
- support in pacing of the program.

The advantage of peer learning is that it offers a two-way, reciprocal learning experience and the opportunity for students to teach and learn with and from each other in both formal and informal ways, with mutual, interdependent benefits (Anderson & Boud, 1996). This focus on collaborative, face-to-face and electronic discussions among participants aims to nurture mutual sharing and learning. The interaction is encouraged to extend beyond the course itself in order to promote professional exchange and develop a learning community.

Vignette 6: Conducting evaluation

In 2004, an evaluation of the faculty's postgraduate, fully online programs was conducted. The overall aim was to explore the characteristics of effective and sustainable online pedagogy. The learners mostly work in online or technologically-enhanced teaching and learning environments and hold diverse professional qualifications. At the time of the evaluation, the programs had been offered for eight years and the courses had class sizes varying from twenty to ninety students.

In order to gather data, a series of online focus groups were organised. Due to the diverse locations of the participants, most focus group activities were held in an online environment. The following stakeholder groups were used:

1. *Advisory Group* (membership from various national and international educational institutions) which provided expert review, advice and verification of findings.
2. *Student Focus Group*: fourteen current online postgraduate students.
3. *Graduate Focus Group*: twelve graduates of the programs.
4. *Tutor Focus Group*: nine online tutors who had worked with course leaders in the online courses.
5. *Teacher Focus Group*: online teachers in the USQ Faculty of Education.

A series of questions were posed to these focus groups and data were examined under three categories – pedagogical, administrative/organisational and technical. The findings support the concepts proposed earlier which define the characteristics of sound online pedagogy. A summary of these findings include:

1. Learners value a learner-centred experience where interaction and collaboration between peers and with the teacher are central to the learning process. Teachers who facilitate such interactions are highly regarded.
2. Online learning environments should be readily modifiable throughout the semester to enable the refocusing of learner attention as different phases of interactive learning unfold. Technology-enhanced environments are viewed as teaching and learning contexts (consisting of both dynamic and static content), not mechanisms for resource delivery or self-paced, individual study packages.
3. Learning activities must be authentic and contextualised by the learner if they are to be offered across diverse contexts and cultures. Reflective practice is critical to a high quality, learning outcome.
4. Learners need to feel valued and part of a dynamic, and preferably ongoing, learning community.
5. Support structures should be designed as a 'one-stop' access point. Support is particularly valued by learners when it encompasses a web-based orientation to the online environment, clear and comprehensive web-based information about enrolment patterns and administrative policies and procedures, and administrative support contact for specific, personal, administrative advice.
6. Reliable, personalised and timely 24/7 technical support is essential. This is required for situations falling outside of the 'frequently-occurring' incidents, and readily anticipated problems and is particularly important when servicing national and international clients who are located in various time zones. Courses in the Faculty of Education are increasingly adopting synchronous as well as asynchronous methods of online interaction that alter the concept of 'standard' 9 am to 5 pm, Monday to Friday, office hours.

Propositions

Five propositions emerge as the basis for developing and extending online education in the Faculty of Education and more widely within USQ. They are:

1. Online learning environments enhance opportunities for learning by facilitating communication among participants within and beyond courses.
2. A shift in focus to learner activity makes new calls on course staff and needs to be supported with resources and staff development opportunities.
3. Evaluation methods devised for traditional courses will need revision in order to support quality assurance of online courses that implement more constructivist pedagogies.

4. Systematic research and development efforts are required to identify and extend emerging successful online educational practice.
5. Successful experience in online education should be leveraged both as the basis for courses in that emerging field and as a tool for increasing effectiveness in other teaching areas.

Recommendations

From the experiences explored in the OP² report, the following recommendations for future directions are offered.

1. Decisions about the selection, development and implementation of online learning systems should be informed by clear and consistent criteria that recognise the values of contemporary online learning and the values and mission of the organisation. Learning Management Systems or other technological tools should not only accommodate, but promote the development of social/relational learning systems and other alternatives to transmissive models of education. Development of an 'online alumni' that supports professional networking, and retains contact with peers across the program beyond course activity is strongly encouraged.
2. There should be a commitment to providing sufficient resources to ensure that online learning systems are reliably accessible as integral elements of learning and teaching environments, independent of time and location. Suggestions include resourcing for the integration of short, medium and long term research projects, continuous staff development through training, development of research capacity in areas related to online learning provision, and development initiatives for both education technology tools (technology) and their application (pedagogy).
3. Comprehensive and clearly identified support systems should be easily available to both staff and students using online learning systems. For students, this should include access to online orientation and demonstration material prior to and during the semester, and 24/7 access to technical support. Personal support is strongly preferred to automated response systems. Integrated, holistic, one-stop support systems are preferred to multiple discrete systems. For staff, this should include, in addition to the support available to students, relevant professional development opportunities, and assistance with instructional design and technical issues. Professional development for staff should be offered using the online learning systems and should model good practice in online pedagogy.
4. Comprehensive quality assurance processes should be established for all aspects of online learning and teaching including underlying systems and procedures, course design and materials, and implementation of courses.
5. Resources should be committed to support research and development directed towards improving the quality of online learning opportunities. Tangible and focused support should be given for research into enhancing online learning and e-pedagogy, recognising that practice precedes research in an emerging field.
6. The demonstrated strengths of online learning and teaching should be highlighted in strategic marketing initiatives. The positive experiences of the online students, irrespective of place and culture, can be better used as effective promotional tools for expansion into other markets.

Conclusion

The Faculty of Education reviews the online element of its programs informed by contemporary pedagogical practices to reflect and address emerging issues and trends in e-pedagogy. The faculty also solicits student feedback as a foundation for improving the online programs. These practices provide the foundation for continuous improvement for course and teacher development

and higher quality, relevant outcomes for students. As the future is unknown, we need to monitor contemporary online practices and continue to refine and improve online practices rather than aim for the status quo.

Copyright © 2005 Maroulis, J. & Reushle, S. The authors assign to ODLAA and educational non-profit institutions a nonexclusive license to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant to ODLAA a nonexclusive license to publish this document in electronic or print form within ODLAA publications and/or the world wide web. Any other usage is prohibited without the express permission of the authors.

References

- Anderson, G., & Boud, D. (1996). Extending the role of peer learning in university courses. *Research and Development in Higher Education*, 19, 15-19. Retrieved July 7 2005 from http://www.education.uts.edu.au/ostaff/staff/publications/db_18_herdsa_96_ab.pdf
- Barab, S.A., & Duffy, T.M. (2000). From practice fields to communities of practice. In D.H. Jonassen & S.M. Land (Eds.), *Theoretical foundations of learning environments*, (25-55). Mahwah, NJ: Lawrence Erlbaum Associates.
- Belfer, K. (2001). De Bono's Six Thinking Hats Technique: A metaphorical model of communication in computer mediated classrooms. Paper presented at the *ED-MEDIA 2001 world conference on educational multimedia, hypermedia and telecommunications*, Tampere, Finland.
- Birks, J., Chong, J., Jurd, K., Melgosa, A., & Reushle, S. (2004). Advice from the grandstand to the trenches: Pre-service teachers and online education, Unpublished report.
- Brown, J.S., & Duguid, P. (2000). *The social life of information*. Boston: Harvard Business School Press.
- Eisen, M.-J. (2001). Peer-based professional development viewed through the lens of transformative learning. *Holist Nurse Practitioner*, 16 (1), 30-42.
- Garrison, D.R. (1993). A cognitive constructivist view of distance education: An analysis of teaching-learning assumptions. *Distance Education*, 4 (2), 199-211.
- Goodyear, P. (2002). Psychological foundations for networked learning. In C. Steeples & C. Jones (Eds.), *Networked learning: Perspectives and issues*, (49-76). London: Springer.
- Hung, D.W.L., & Chen, D.-T. (2001). Situated cognition, Vygotskian thought and learning from the communities of practice perspective: Implications for the design of web-based e-learning. *Education Media International*, 38 (1).
- Jona, K. (2000). *Rethinking the design of online courses*. Paper presented at the ASCILITE, Coffs Harbour NSW.
- Jonassen, D.H. (1999). Designing constructivist learning environments. In C.M. Reigeluth (Ed.), *Instructional theories and models*, (Vol.2, p.715). Mahwah, NJ: Lawrence Erlbaum Associates.
- Jonassen, D.H., Peck, K.L., & Wilson, B.G. (1999). *Learning with technology: A constructivist perspective*. Upper Saddle River New Jersey: Prentice Hall.
- Kehrwald, B., Reushle, S., Redmond, P., Cleary, K., Albion, P., & Maroulis, J. (2005). Online pedagogical practices in the Faculty of Education at the University of Southern Queensland (Working Paper No.05/01). Toowoomba: Faculty of Education, USQ.
- Kimball, L. (2001). Managing distance learning – new challenges for faculty. In R. Hazemi (Ed.), *The Digital University*. London: Springer.
- Land, S.M., & Hannafin, M.J. (2000). Student-centred learning environments. In D.H. Jonassen & S.M. Land (Eds.), *Theoretical foundations of learning environments*, (1-26). Mahwah, NJ: Lawrence Erlbaum Associates.

- Lave, J., & Wenger, E. (1997). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Mayes, T. (2001). Learning technology and learning relationships. In J. Stephenson (Ed.), *Teaching and learning online: Pedagogies for new technologies*, (16-26). London: Kogan Page.
- Nelson, B. (2004). *Backing Australia's future*. Retrieved 17 December 2004 from http://www.backingaustraliasfuture.gov.au/ministers_message.htm
- Steeple, C., Jones, C. & Goodyear, P. (2002). Beyond e-learning: A future for networked learning. In C. Steeples & C. Jones (Eds.), *Networked learning: Perspectives and issues*, (323-342). London: Springer.
- von Glasersfeld, E. (1995). *Radical constructivism*. London: The Falmer Press.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, U.K, New York, NY: Cambridge University Press.
- Wilson, B.G., & Meyers, K.M. (2000). Situated cognition in theoretical and practical context. In D.H. Jonassen & S.M. Land (Eds.), *Theoretical foundations of learning environments*, (57-88). Mahwah, NJ: Lawrence Erlbaum Associates.