Distance education teaching and tutoring: two evolving Australian models

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**Abstract**
Many Australian universities have entered the distance education market, offering degree programs throughout South East Asia. Although each university offers their programs in a variety of styles, the common factor is the use of computer and web based technologies to not only support the subject’s content, but to facilitate the communication between the students and their academics. Students have accepted this mode of delivery through the presence of their local academics, who have facilitated their use of the technology. Without their local input, both academically and culturally, it can be seen that student use of computer based technology would be far more limited, thus inhibiting their success in the web based subjects. The offshore academic, as well as facilitating the student use of the technology has provided crucial local knowledge, thus adding impact to the subject and its relevance to the student. It is clear that computer and web based technologies will continue to be developed to add to the delivery of courses both on and offshore. It is in each university’s best interest to develop a close partnership with their offshore colleagues to ensure academic success for their students.

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DISTANCE EDUCATION TEACHING AND TUTORING: TWO EVOLVING AUSTRALIAN MODELS.

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ABSTRACT
Many Australian universities have entered the distance education market, offering degree programs throughout South East Asia. Although each university offers their programs in a variety of styles, the common factor is the use of computer and web based technologies to not only support the subject's content, but to facilitate the communication between the students and their academics. Students have accepted this mode of delivery through the presence of their local academics, who have facilitated their use of the technology. Without their local input, both academically and culturally, it can be seen that student use of computer based technology would be far more limited, thus inhibiting their success in the web based subjects. The offshore academic, as well as facilitating the student use of the technology has provided crucial local knowledge, thus adding impact to the subject and its relevance to the student. It is clear that computer and web based technologies will continue to be developed to add to the delivery of courses both on and offshore. It is in each university's best interest to develop a close partnership with their offshore colleagues to ensure academic success for their students.

1. INTRODUCTION
The 1990s saw an explosion in Asian demand for western degrees. Many Australian universities entered the distance education market at this time, offering degree programs in a number of countries in South East Asia, backed by strong development of electronic delivery and support. International students now contribute to the "business of borderless education" in Australia, making education the country's fifth highest income earner, and Australian universities increasingly dependent on international enrolments for their funding: see the Australian Commonwealth DEST report by Dearn et al, 2002.

The programs on offer use a variety of teaching models that vary from institution to institution and from discipline to discipline. In Australia, universities such as the University of Southern Queensland (USQ) have been in the distance education market, both in Australia and abroad, for many years. An integral part of the USQ teaching model is a central Distance and e-Learning Centre which coordinates much of the communication between students and academics. Inevitably computers are playing a major role in that communication and the evolution of the USQ model. USQ provides support for individual students, and groups, largely by direct email communication with a member of the teaching team and discussion group threads on Blackboard, WebCT, and other platforms.

Newer players, including the University of Wollongong (UOW), have developed their own, often quite different teaching models. In both cases some students attend a local college in his/her own country. The Australian course content may be presented by the UOW academic in what is called an intensive delivery. In that delivery system the UOW academic delivers the content of the subject over one academic week and then returns to Wollongong. The course delivery is then supplemented by local tutors with additional support from the Australian subject co-ordinator. The differences mostly lie in the nature of that support. This is manifested particularly in the extent, or lack of, face-to-face interaction between the students and their Australian lecturer. Without a comprehensive background in distance education, and no mandate to enter the distance education program, UOW focuses on the flexible delivery method which UOW places a greater emphasis on including the Australian academic in this mode of learning than USQ.

This paper outlines the backgrounds that have moulded distance education and offshore teaching approaches adopted by these two Australian universities, and offers ways in which teacher/educators are harnessing the power of burgeoning information and communication technologies in response to the needs of their distance students. In particular, we reflect on the changing role of the academic with the upsurge in the use of computers, and we report data on teacher-educators' perceptions of their new responsibilities within the distance learning models they employ.
2. UNIVERSITY OF WOLLONGONG

Background

The University of Wollongong (UOW) entered the Asian education market contemporaneously with the rise of the World Wide Web. Thus, from the outset, the internet was poised to play a major role in the teaching model adopted. Also – UOW is not a distance educator. From the student perspective, the local college serves as a UOW campus. In much the same was as UOW runs several satellite campuses in Australia and at Dubai. UOW’s initial model for a subject taught off-shore but coordinated from Australia involved the Australian lecturer visiting the overseas institution to deliver the course material in an intensive one week study block. Offshore partners are accredited teaching institutions, offering their own accredited courses in addition to ours. The Australian subject co-ordinator set all assessment tasks and marked approximately 50% of the assessment, including any examinations. The offshore institution has its own full time, professional academics, acting in the role of tutor for the subjects on intensive delivery.

In a strategic move to cope with the sudden influx of offshore contracts, the Dean of the Faculty of Informatics initiated an International Unit. The function of this unit was to initiate and oversee any new contracts, monitor subjects and student progress as well as liaise with offshore institutions. As well, the unit had an academic coordinator whose job was to liaise between the institution and Wollongong regarding any academic issues, be a contact for students and staff delivering offshore subjects. Offshore tutors were subjected to a ‘vetting’ process by the offshore academic coordinator in conjunction with the onshore subject coordinator and the head of school. Subjects were usually supported by a contained website for transmitting information, and allowing students to access material, contact their Australian academic and post questions to each other in a discussion area. Subsequently the majority of such websites have moved to WebCT, the university supported class management package. The remainder of the week-by-week interaction with students, such as tutorials and personal enquiries, were handled by the local tutor.

This model has a number of shortcomings. Firstly it appears to diminish the status of the offshore academic, despite being the students’ primary source of information and support throughout the latter part of the semester. During the week long block delivery, the local tutor’s role is apparently subservient. Much of their time is spent providing clerical support, or passively auditing classes. The Australian lecturer’s role is clearly seen as more superior, and the ultimate arbiter of any dispute. We believe that this sub-optimal situation has now been overcome by developing an instructor network and ensuring that all instructors have input into the subject.

Re-emphasising the role of the tutor.

Fuller and McFarlane (2002) proposed an alternate approach making use of existing technology to continue interaction between students and the Australian academic throughout the semester. Under this model, the role of the offshore academic is that of an equal partner and has many benefits for both staff and students (McFarlane et al, 2003).

The class management package WebCT, telephone, email, NetMeeting and PowerPoint presentations, as well as the one week in intensive mode were combined for the delivery of one particular Computer Science subject. The initial trial of this approach involved a large computer science subject launched through one of UOW’s partner institutions, INTI College, Sarawak, Malaysia. PowerPoint presentations prepared at UOW were emailed to INTI and loaded onto the PC in their lecture theatre. The UOW lecturer presented the lecture remotely, using NetMeeting, requesting slide changes when required. This was preferred to sharing the PowerPoint presentation as it allowed graphics to be included. Previous attempts at sharing PowerPoint slides resulted in unacceptable transmission delays. NetMeeting was also used for synchronous discussions with the UOW lecturer during scheduled laboratory sessions.

The initial PowerPoint delivery and talk involved both academics making students aware from the start that both are partners in this relationship. This shared delivery also prepared the students for the arrival of the UOW lecturer to their institution. For contractual reasons, subject content must be delivered in intensive mode. This took place in the second week, where again, both academics worked together to emphasise the partnership of the subject.

The Australian based academic continued to interact synchronously with the overseas students, after completion of the intensive week via online lectures and tutorials. This continuing interaction provided the opportunity to tailor responses dependent upon students’ evident understanding of the concepts being discussed. To this end, the local academic was able to provide the Australian academic with advice using text messages in NetMeeting, which were not seen by the students. Even though the Australian academic was situated remotely, the input provided by the local academic afforded the immediate and unspoken feedback normally only possible in a face to face learning situation.

Having both academics present during these online sessions reinforced the importance of the contribution being made by the local academic as it was obvious to the students that they were operating as an equal partner. The local
academic's role in identifying problems by observing the students as they began working on tasks was crucial. Students could also raise questions in the public area of the classroom or using the bulletin board facility of WebCT. The bulletin board assisted in clarifying any problems, and by corresponding via email, telephone or Instant Messenger, the two academics were able to mutually devise guidelines that benefited the students in accomplishing each task's objectives. Both academics monitored the discussions to determine where the students were having difficulty, and thus tailored supporting lecture content. To help encourage student participation, individual frequency and relevance of interaction formed part of the subject's assessment.

A number of other changes have taken place since the initial trial of this approach, as a result of findings from surveys have been administered toward the end of subsequent semesters to gauge student reactions. Our emphasis on online discussions was predicated on the commonly held belief that Asian students are reticent to participate in face-to-face discussions, and that online participation can subsequently improve participation in face-to-face discussions [(Goldberg, 2001, Fuller et al, 2001). However, as shown in Table 1, the majority of respondents claimed not to find this hard, while a similar number said that using online discussion forums stimulated them to think about the topics. This prompted us to drop the assessment of the discussions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you find it hard to give your opinion in a face-to-face group discussion?</td>
<td>27</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Do you find it hard to give your opinion in an on-line group discussion forum?</td>
<td>40</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Do the discussion forums stimulate you to think about the topics?</td>
<td>43</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Would you say that your on-line discussion experiences have helped you to participate more in face-to-face discussions?</td>
<td>26</td>
<td>28</td>
<td>3</td>
</tr>
</tbody>
</table>

Secondly, there was no definitive support for the online lectures. Table 2 shows that, while a small majority favoured them and similarly, a similarly small majority did not prefer one method of delivery to the other. Responses to the third question clearly indicate that students do not wish to drop face-to-face lectures in favour of online presentation.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your opinion, do you find that on line lectures provide a meaningful learning environment for students?</td>
<td>30</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>Would you have preferred to have only the face-to-face lectures in week 2 of the semester and no online lectures?</td>
<td>25</td>
<td>29</td>
<td>3</td>
</tr>
<tr>
<td>Would you prefer online lectures each week, rather than the one-week of intensive lectures in Week 2 of the semester?</td>
<td>19</td>
<td>35</td>
<td>3</td>
</tr>
</tbody>
</table>

**Current Approach**

We have since dropped the online lectures in favour of regular Internet Relay Chat (IRC) sessions. The Chat sessions allow the students and both academics to communicate in a less structured way. Topics to be discussed are determined beforehand, and students are given time to read background material. Questions are posed based on the background material, and the discussion directed when required. Although the sessions can be led by either academic, generally both participate in these discussions. The local academic's role as moderator is strongly emphasised. It should be noted that student's ability to log into the internet site was sometimes delayed due to administrative processes. In an effort to prevent that delay, the International Unit established a back up website, controlled by a login and password which is distributed by the UOW academic during their week of intensive delivery. Under that system, no student was disadvantaged in obtaining required materials for the subject.

The local tutor now contributes to both the design of the subject both in terms of content and assessment. Their involvement in adding local references, examples and case studies added to the 'culture' of the subject, making it part of the student's world, and not an impost from outside. This increased participation in the subject design is made as transparent as possible, emphasising and reinforcing the local academic's credentials as a source of advice and information.

While the local tutor's contribution to localising course content has been substantial, it is also recognised that any advantages so gained may in fact be totally negated by our failure to provide a culturally aware interface between students and these materials (McFarlane et al, 2004). Thus, in future they will also assist in the design of subject websites.
The past 6 years of the UOW off-shore program has overseen a dramatic shift in the roles of both the offshore tutor and the Australian subject co-ordinator. Initially the Australian co-ordinator was totally responsible for design of the subject, content, assessment and any supporting website. The offshore tutor operated under the co-ordinator’s direction, and was not involved in the setting up of the subject in any way. Under current arrangements, the Australian co-ordinator and off shore tutor act as equal partners, sharing the responsibility for both design and delivery of the subject.

3. UNIVERSITY OF SOUTHERN QUEENSLAND

Evolving models: traditional to electronic

Evolving models for distance education at the University of Southern Queensland (USQ) are based on a quite different history and infrastructure to that of OOW. USQ offers many courses in dual mode (on-campus and distance-learning) with due regard for issues of access and equity. USQ’s distance education students are widely scattered: many have no access to support teaching; some have little or no access to the web. Hence for courses where computers are not critical to the core content, care is taken not to exclude or disadvantage students who do not have easy or frequent access to support teaching, specific software and the internet.

USQ’s wide range of course offerings have traditionally been built on a solid basis of comprehensive print, multimedia and electronic materials designed for individual study, supplemented by frequent feedback on written assignment submissions and computer-mediated assessment, with support from the teaching team via electronic media, telephone, fax and post. However, course design has evolved quickly and dramatically to engage distance students more actively in online communication and it is clear that on-campus teachers are fast becoming electronic tutors and online facilitators of learning. With increasing student access to and personal use of computers, generally, computer literacy is fast becoming a declared graduate attribute. Courses are therefore evolving to accommodate much higher levels of electronic communication and interaction, and students are being invited to interact with peers and teaching teams in a variety of ways, both synchronously and asynchronously.

Increasingly common to all course offerings is the provision of a wide range of web-based study stimuli that supplement the core written materials that are provided to every distance student: course webpages include links to electronic discussion groups, related materials, supplementary learning activities, some interactive, lecture slides and presentations used on-campus, feedback on learning tasks and assignment work, exemplars of good work, and models from past assessment items.

In parallel with the growth of direct computer-based electronic communication, it is not surprising to note that there has been some decline in the use of tele-tutorials and audiographic sessions at USQ. In the past, USQ has made substantial use of tele-tutorials and audiographic sessions. Where learners can gather together at local centres, tutorials are offered via telephone conference calls (like tutorials) or video conferencing. However, some teachers have worked strongly at developing techniques for using such media effectively, and use them regularly to establish and nurture a personal presence, because some distance students value this kind of interchange with teachers highly. These sessions are recorded at USQ, and audio tapes are generally made available to all students via the course websites very soon afterwards. Audiographic tutorials include visual display on electronic boards and/or computer monitors for those learners who can gather at local centres where the facilities are available. Some current research into learning styles and preferences seeks to establish whether it is those who are strongly auditory who are loyal to tele-tutorials, and those who are much more visual who are more active online.

Course design, delivery and communication: team effort

It is clear that with the fast expanding range of learning tools and forums, distance education course design and delivery are becoming more and more a negotiated team effort, with input from specialists outside of the core teaching team. USQ’s Distance and e-Learning Centre instructional designers advise and assist teacher-educators with the preparation of culturally-sensitive quality materials, and the development of a range of strategies to accommodate and engage distance learners from all over the world.

Teams of culturally-aware and experienced specialists in USQ’s International Office supplement communication between teachers and off-shore students to facilitate sensitive and smooth communication between teachers, students, and local agents. Some are specifically tasked with increasing levels of communication between the university and distance agents or partners. Others have the role of advising and assisting students with queries, providing interface where language and culture play a role, and referring to the appropriate on-campus academic or administrator where appropriate.
There is no single model for distance education course design, or for support teaching. These are structured around the particular needs of the course (goals, content, level, class-size, resources) and the strengths and convictions of the teaching team and instructional designers: see, for example, Mcdonald & Reushle (2000). While some Departments favour reliable and more direct forums, Blackboard and WebCT platforms have formed a basis for both online and dual-mode USQ course delivery, despite some staff and student concerns about the inflexibility of aspects of these platforms, and concerns about balancing the need for a cohesive institutional style against individual course needs and character, the control of which should remain in the hands of the academic course leaders, teaching teams, with input from instructional designers.

Evolving partnerships with off-shore teachers

Brand new overseas campuses are being developed by USQ on the model of fully shared responsibility for both teaching and assessment, with USQ course materials providing the basis for full face-to-face off-shore delivery by a local teacher and it will be interesting to see how academics approach both the teaching and organisational partnerships that must necessarily evolve. Course websites are currently being developed specifically for the needs of these new local learning-communities, to facilitate this high level of shared teaching and to accommodate non-synchronous academic semesters.

USQ course design and delivery cannot generally rely on students having access to ongoing local teaching or tutoring support, however. Many of USQ’s Australian students, and some from overseas, enrol without an intermediary, and most international students enrol through institutional partners, study support officers, or referral agents who do not employ teachers or tutors. While some of USQ’s off-shore institutional partners (in particular, in Asia) have traditionally offered support tutoring or teaching, some past experience of the arrangements made by partners has revealed that this work is sometimes designated to casual or contract workers, and in such instances, USQ academics have not felt able to rely on models that build on long-term teaching partnerships.

Nevertheless, positive outcomes of some strong USQ efforts to use teacher/tutors from both national and international arenas to support and guide on-site educators are documented in the report by Reushle & McDonald (2004). Findings based on evaluative feedback from inexperienced tutors indicate that they approve of gaining experience of distance learning models that are proposed and demonstrated by more experienced teaching “masters” or mentors. While this differential model does not establish a level teaching team, it enables non-threatening fast-tracking of experience within a range of different learning environments, and reflects well-established approaches to cadetship and training. USQ professional development courses and websites further support new online and distance educators with a range of workshops, reports and manuals.

While USQ has built some strong teaching partnerships with off-shore tutors, most overseas partners welcome regular intensive teaching visits by lecturers to venues that have enough students to warrant such. Off-shore teaching conditions are often far from ideal, given the difficulty of facilitating the arrangements from a distance, and indeed, cultural habits aggravate the natural distance between students and a visiting teacher, and these factors inhibit social and educational interaction. Nevertheless, some students react very positively to these face-to-face offerings: Engineering and Science students, for example, welcome intensive teaching which aims at making the harder concepts more accessible: certainly feedback from students and teachers over many years has indicated that the affective and cognitive value of these teaching visits is worthwhile for some courses.

In summary, USQ supports its suite of distance courses with a range of face-to-face and electronic teaching/tutoring strategies, even where quite strong teaching partnerships are possible. To strengthen personal levels of communication between on-campus teachers and their distance students, teams of course designers and teachers are exploiting innovative ways to use the full range of burgeoning electronic media effectively for students with a wide range of backgrounds and cultures.

4. Computer-mediated learning: new demands on teachers and students

USQ and UOW are clearly both very strongly committed to finding new and innovative ways to improve teacher-learner interaction, and to exploit avenues for electronic education appropriately, and on-campus teachers are exploring a host of new opportunities for teamwork and course communication.

Of the suite of computer-mediated communications between teacher and learner, besides direct inter-personal teacher-learner email communication, mail groups and discussion groups are perhaps the most common currently in use in Australian universities, with WebCT most often the choice of platform. Top-down models of electronic course communication from lecturer to class persist with clear quick benefits: they establish a direct link from student back to teacher, and provide prompts for learning and discussion that elicit valuable responses from some individual students.
However, top-down communication is devolving quickly and inevitably into far more horizontal learner-driven discussions. Recent years have seen educators embrace structured discussion group forums as a motivating and supporting force for learning. For some discussions, the teacher plays primarily an early introductory role, inviting students to use the forum as a means of raising learning questions with others in the course, and engaging in discussion, perhaps provoking that occasionally via postings on course assessment tasks or other learning issues. Other teacher-facilitated discussions centre on specific topics or tasks, with an expectation of participation by all learners even to the degree that their postings are monitored and assessed.

It is clear that the distance teacher’s role is changing from that of author/teacher and tele-fax tutor to online teacher and cyber prompt. All these efforts, however, are placing new and generally growing demands on teachers. In a report commissioned by the Australian Government Department of Education, Science and Training, USQ online teaching was studied closely by the research team of Postle et al (2003). Findings from the investigation point strongly at the increased demands that online education make on staff and students. While staff viewed electronic communication as a powerful pedagogical tool, they found it difficult to come to terms with the perceived demands of its 24-hour a day capabilities, and increasing expectations of maintaining an electronic presence. Staff questioned the sustainability of their early levels of interaction in models for online learning. Analysis of course statistics revealed some general trends in the usage of computer mediated communication. High levels of teacher-student communication at the beginning of courses tapered off from mid-semester, even when communication was a crucial component of the pedagogy. However, usage was variable for both students and teachers. Nevertheless, levels of communication were similar for males and females, and across different culture groups, and hence the team proposed that “the relative anonymity and asynchronous nature of online education might remove barriers to participation”.

It is important to note too that recent joint research into work environment predictors of beginning school teacher burnout, done by a team that includes researchers at USQ and Griffith University, suggests that how innovative the work environment was perceived to be added significantly to burnout, after controlling for initial levels of burnout, and the personality trait neuroticism (O’Brien, Goddard & Goddard, 2004). Strong pedagogical issues are beginning to emerge too, with teachers also expressing concern that pedagogical issues might be taking second place to the commercial ambition of Australian universities.

5. The evolving role of the teacher/tutor/educator

In their study of online teaching at USQ, Postle et al (2003) reported that perceptions of the shift in positioning of both teacher and learner emerged clearly, accompanied by some degree of concern on both sides: their responses express a sense of “violation” of their learning and teaching expectations. In particular, students questioned the effects and quantity of forced communicative interaction, expressing concerns that this aspect of some new models imposed a loss of flexibility on their learning. It seems likely that with a diverse range of learning styles and backgrounds, appropriate levels of teacher control may be difficult to establish via electronic media, where learner reaction is largely invisible and the effects not seen immediately.

Certainly the role of the distance education teacher/tutor is changing substantially. The distance education teacher has always played the role of tutor at a distance, and teacher for intensive sessions, either face-to-face or via technology. However, student access to electronic communication has made frequent feedback from the teaching team possible throughout the semester, and for some individual distance students, this medium of personal tutoring is particularly effective. In fact growth in levels of demand from students for email communication, and the expectation of quick response has altered the daily workloads of tertiary academics, and responsibilities now include daily rostering of the members of large class teaching teams so that students’ with conceptual and procedural difficulties are assisted as quickly as those who are on campus: indeed there seems to be no reason why they should not be.

Teacher facilitation of learning is no longer constrained to pre-designed materials. Where UOW’s model differs, the immediacy of electronic postings is being exploited to prompt learning in many stimulating new and different ways, and course design is changing steadily to accommodate these learning prompts and scaffolds. Indeed course design and delivery is evolving into a balance of paper and electronic media management that requires new skills on the part of tertiary educators, and tertiary teacher-educators are having to spend increasing numbers of hours facilitating and monitoring student-centred online and email discussions and problem-solving. Cultural awareness and sensitivity are increasingly important and necessary skills, alongside electronic group and inter-personal communication skills, which are very different in nature to face-to-face skills, and universities like USQ offer professional development courses that assist educators to develop these skills alongside the technical aspects of managing electronic communication.

On top of being “managers” of education, distance educators must have and project electronically, or else convey in short sharp intensive teaching sessions, a host of qualities that give tutoring and teaching substance and credibility. It is
interesting and significant to examine the following qualities that Hislop lists as desirable characteristics of effective online tutors: see below, as cited in Reushle et al (2004).

- Motivated
- Approachable
- Visible
- Explicit
- Proactive
- Discrete
- Collaborative
- Technically capable
- Credible

Of course these reflect the qualities we accept as necessary for effective face-to-face teaching: but how much harder these are to establish without a physical presence! Similarly the introduction of online lectures and IRC sessions has added additional workload to UOW offshore teachers. While rewards for being an offshore staff have improved there is still the question of additional marking in addition to the usual teaching load. At this time, the offshore delivery is considered ‘off load’ and is limited by the Vice chancellor to ensure that onshore classes are not affected. All UOW offshore lecturers are volunteers and look forward to their experience in a foreign country.

Indeed there is evidence that online teachers feel quite different to their counterparts in terms of their roles and responsibilities (McDonald et al, 2002). The USQ study (Postle et al, 2003) found that online teachers reported being in “change-mode”. They saw their roles jointly as managers of learning and learning partners in the virtual classrooms created by online learning environments, rather than re-interpreting teaching and learning around traditional structures, principles and practices. However, while they had made progress in establishing online learning communities, and accepted that online learning required teamwork, staff expressed concern over “losing control of what they perceived to be their roles, and even their rights”.

Strategies which online teachers reported finding effective were the use of concept maps, the creation of different online learning for different types of communication: introductory and social, technical support, sharing information, and learning reflections, etc. Also reported as helpful is a range of cognitive tools: graphic organisers, spreadsheets, and electronic library resources, the posting of challenging questions to stimulate discussion, group pages to assist in collaborative learning tasks and problem solving, regular brief online evaluation forms to gauge aspects of the course, and protocol for synchronous chat.

6. Summary

Just as there are differences in offshore education models at USQ and Wollongong, so is there seems to be no evidence in the literature of a shared pedagogical framework emerging for distance education generally. Indeed, with variable goals, technologies and resources, it is doubtful that a single framework would suit all teachers and all students. At this experimental stage, with teachers grappling to find strategies that work in strange new learning environments, it is clear that the pedagogical challenge for teachers is predominantly procedural, rather than conceptual.

In the search for strategies that facilitate learning in a changing world, Australian tertiary level educators are grasping opportunities to harness the immediacy of electronic delivery and communication to stimulate learning in a host of new ways. To be effective, they must develop a multitude of new technical and inter-personal cyber-skills in this era of explosive growth in the use of educational technologies: and while higher education is currently the appropriate forum for leading the development of these skills, it seems inevitable that they will increasingly and soon also be needed for on-campus and school education.

Indeed the role of teacher/tutor has changed dramatically from the days when teachers and distance students were separated by time delays and the constraints of prepared materials. Distance education teacher/educator roles have become even more complex and multi-dimensional, highly flexible and sensitive, in response to sightless cyber communication. New team-teaching and co-teacher cyber-environments are also carving new and unfamiliar roles for teaching partners, and teachers are responding with strategies that attempt to level inappropriately unequal teaching roles. Teachers report that navigating these uncharted waters while maintaining some sense of control over their educational environment is exciting but challenging. It seems clear that teachers and students alike need time to grow and build experience in cyber learning environments and that this should largely be at their own pace: both express concerns about issues of loss of “control” and enforced cyber activity from team leaders and administrators is likely to be stressful and resented.

Expanding on the educational roles implied by the maxims of Sage on Stage and Guide on Side, it is clear that the modern educator is evolving towards new and exciting, but very sensitive and demanding roles: those of Cyber Facilitator and Online Prompt.
REFERENCES


