



Online Teaching Demands Hands-On Commitment

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Proceedings of the 15th Annual NACCQ, Hamilton New Zealand July, 2002 www.naccq.ac.nz

ABSTRACT

As teachers in an ever-changing environment, we have to be adaptable. The purpose of this paper is to discuss how we manage to keep true to pedagogical strategies whilst managing the technical issues encountered when porting our courses to the web.

The days of standing up front and delivering a series of notes to your class went a long time ago. Anyone who still does this type of teaching runs the risk of 'student flight'. This is just as applicable to teaching with and from a textbook as it is to online teaching. We, as teachers, are compared to the 'edutainment' industry. Our colleagues in learning psychology have long ago proved that concentration spans are reduced and that we must 'involve' our audience. Just as we continually think of 'new activities' in the classroom we must think of ways to port these to 'on-line' teaching. As the growth of this area explodes we must examine the pedagogical strategies that can be used for online teaching.

1. INTRODUCTION

Online is having a profound affect on how society is learning (Bonk *et al.* 2000). Peer networks, virtual learning space and collaborative learning circles are some of the new techniques. Once over the learning bump, online teaching should make us more creative. It is this role that we wish to discuss. Previous departmental research has included 'Who Learns Best Online' (Young *et al.* 1999) or 'Does Gender Matter', (McSporrán *et al.* 2001) focussing on which students adapt best. We are still convinced that some people/groups find online learning easier than others. However, it is time to look at who adapts best as an online teacher. The transition for teachers or learners is not simple. Some tend to concentrate on the technology and forget the pedagogy of learning. Others are reluctant to change what seems to work for themselves, or, in the case of the instructors, for the majority of the class. Some simply hate change, and claim ideals are rarely achieved; "Initial costs in staff time...high and returns are speculative." (Swindell, 1999).

There are deep issues embedded in online learning, none the least of which is insecurity:

- ◆ 'If I put all my precious work on line I run the risk of losing it'.



- ◆ 'When do I get time out to learn all the technical stuff?'
- ◆ 'Who will mentor me through this learning curve?'
- ◆ 'What do I get in return for my efforts to put my course online?'
- ◆ 'My case studies are the result of my hard work, why should I share them?'

These issues need resolving before an instructor will embrace online teaching.

The role of the instructor is increasingly changing but the aim is the same – to make the delivery methods work for one hundred per cent of the students in one way or another. In a face-to-face class, a good teacher will watch carefully for the facial expressions of affirmation. As Lehtinen *et al.* (2000, p23) state, "when it concerns computers, the constraints of social interaction are different from the face-to-face communication". Online, the affirmation comes through the written communication channel rather than the facial expressions.

2. THE ROLE OF THE INSTRUCTOR

Many students, like instructors, are unsure of the online environment. They find it difficult to take risks and share knowledge, and require support. According to De Fazio *et al.* (2000, p146), "academic support is often a complex role requiring a mixture of knowledge of the subject, language and study skills. In addition, there is a people or strong pastoral element that underlies the very nature of the work". This is difficult enough in a face-to-face situation, but via a computer, "however, retaining or attaining a sense of human interface between the teacher and the student... can be rather challenging" (De Fazio *et al.* 2000 p151). Instructors need to be innovative and proactive in the adoption of online strategies and the evaluation of pedagogical strategies. Their role is not just to employ new technologies, but also to maximise the achievable benefits from them. Their role is to prepare the students for the next stage in their learning.

Successful management of background tasks is important if the instructor wishes to enhance the learning. Administration of a web based course brings with it new challenging decisions about resources, tools, partners and markets. Being in love with new technology does not generate new students or class satisfaction. Good old-fashioned passionate teaching enamours

your students to rave about the usefulness of your course. Boring, non-passionate reading of notes drives them out of the classroom and the same attitude to online resources will result in non-attendance in class or non-participation, the silent class. Eventually this could mean the demise of courses, with potentially damaging results to a programme if a poorly attended course is a feeder to courses in the next level up. Non-participation in discussion boards might sound trivial, but it could be the beginning of an avalanche. Therefore the instructor has an obligation to tailor the use of technology to the course in question. As O'Keefe and McGrath (2000 p378) state, "lecturers need to be aware of the models of teaching and learning which they implicitly or explicitly adopt, and to critically consider the role of technology both in the development of the curricula and the delivery of the material". Whether online or offline, the interaction between the teacher and learner is a core element of learning. Feedback is required. "The teacher is an important mediator in the process of constructivist academic learning" (O'Keefe and McGrath, 2000,p377 citing Laurillard, 1993).

Discussion boards have been used successfully for many years, but they are not the only tool and tend to be over used. To make this tool viable requires considerable input from the instructor. "Both asynchronous and synchronous communication are online tools that may facilitate (discussion) but, ... it does need to be monitored and moderated carefully." (De Fazio *et al.* 2000 p 150). Acknowledgement of the other's point of view is mandatory, as is netiquette on online discussions. Students need to learn that there is more than one way to solve a problem. Emotional intelligence is critical when dealing with team members, whether online or in class. IT savvy is not the only requirement for industry employment. "Well rounded employees are in demand again" (Wells, 2002). Social actions should never be underestimated as an important indicator of success. It is the instructor's role to promote collaboration, a necessary pre-requisite of on-line discussion. If students are not interested in helping others, and cannot see the benefits, the discussions will die. "This means that a groupware application is not enough for changing the teaching-learning processes.....but simultaneous attempts to change the whole collaboration culture of the classroom are also needed." (Lehtinen *et al.* 2000 p35).

Instructors need a voice in online learning decisions. They need to take a lead role in the pedagogical strategies attempted in a course. However they also need a mentor to discuss their ideas with. They need to be able to visit and discuss their thoughts, images and ideas with a colleague further down the track than

they are without fear of failure. In other words they need to absorb the research and experience of others.

Continual improvement can only occur if pedagogical and technical strategies that have been successful are repeated or developed further, and those that were less than successful are analysed as to their shortcomings and either discarded or reshaped. For this to happen, course documents providing reflective comments written at the time of delivery or shortly thereafter, must be available. The instructor has the role of preparing a course, delivering it and very importantly, reflecting on it and then evaluating and improving it. Brown and Thompson, (1997 p80) report that feedback should be given during the course, otherwise valuable comments tend to be lost. With early feedback, problems can be rectified during the course.

3. STRATEGIES FOR FULFILMENT OF ROLES

Campbell and Hawksworth (1999) point out that the introduction to online learning is important. A teacher with a friendly, honest, humorous style, aimed at the right level, is going to make the students believe that they will succeed. This, of course is true whether online or off-line. In our experience a conversational role taken by the instructor allows more participation by the students. Formal or directive statements like an email directing students to discuss their chosen research topic online will result in very few postings other than a declaration of the topic the student is intending to pursue. Teacher-centric environments where instructors pose formal topic-centred statements or

questions result in minimal performance. (Ahern, Peck and Haycock, 1992). According to Green and Eves, (2000, p76), “discussing information that the student is familiar with is essential to the establishment of confidence ... As confidence grows, students become willing to respond to the postings of others ...so the lecturer must bolster confidence during online chats and by the tone of responses to postings.” When online instructors are more interactive and spontaneous and have a genuine concern for the wellbeing of their students, this caring attitude is transferred whether in class or online and results in more interactivity.

Peer assistance should never be underestimated. Instructional conversations can be time consuming but Frequently Asked Questions (FAQs) can be stored and used again and again when appropriate. By actively encouraging the students to participate and by showing a personal interest, the instructor can facilitate the gain of significant advantages for all, by allowing the students to not only post questions, but also to provide answers. However, the postings must be monitored and mediated. The lecturer must not allow incorrect answers to go unquestioned or leave requests for help and challenges to postings to go unanswered. Weekly newsletters can be stored, edited and re-cycled where appropriate. Personalising articles and providing social reporting achieve a familial atmosphere achieved, enhancing learning (Campbell and Hawksworth, 1999).

One of the easiest ways to avoid overuse of any tool or strategy, or at least make it work effectively, is to use a graph when formulating lesson plan strategies, drawing attention to usage. It’s simply an extension of the tools already available. Variety is the key. In Table 1 are a few variations: (Bonk *et al.* 2000).

In Class	Online
Ice Breaker 8 noun activity (describe partner)	Ad hoc groups made - same exercise
Peer Feedback Roles	Via email
Critical Friends	Via discussion “groups”
Reading Reaction Class groups	Discussion Group online
Case Studies	
Structured controversy	Whole class discussion (Points)
Brainstorming	Use of the Whiteboard (Groups)
Concept Mapping	
Scavenger Hunt (library)	Use the web to get resources
Role Play (paper handouts)	Role play make script available to certain students. Use of “avatar” names
Discussion of sound vision (resources)	Sound use voicemail, video via net (slow) CDs or tapes (digitised)
Guest Experts (in class expensive)	Use of new conferencing software

Table 1: In Class Activities with Online Equivalent

4. THE PRACTICE OF THE THEORY

Many courses prepared by a variety of lecturers have had a range of online facilities, with success varying from absolute to dismal failures. By choosing successful courses and getting student feedback, we can build on successes.

In our three year Bachelor of Computing Systems degree, one successful course with much online content is Help Desk.

It was always envisaged that the online resources would be used to facilitate and alleviate the administration load of a Co-operative Education unit, (McSporran and King 2001), however this course was re-engineered to actively promote online learning within and outside the classroom.

In this course, initial sessions are used to familiarise the students with the tools that are required for online discussions. Using Blackboard, which has been set up to facilitate class discussions, personal diaries, file management, task completion, course notices and home pages of their peers, tasks involving collaboration with other students are assigned. These require the use of various technical equipment e.g. scanners, digital cameras and various software, the end focus being on the production of a personal home page and familiarity with the Blackboard utilities. Many different (computer) programs have been used to facilitate collaborative learning making it an important pedagogical tool. (Lehtinen *et al.* 1999 p16). Very early on, the students are required to conduct online discussions, even though they are physically in the same room. Here the instructor's role is critical. Digital Pictures are used so that participants can have an image of the person they are speaking to. Humour is also used on help desk (cartoons) together with motivational snippets. A heavy focus on sharing resources found on the web is encouraged. To enhance problem solving abilities, small working groups are set up on Blackboard and each group given a similar but different brain-teaser problem. The tools within Blackboard (whiteboard and chat) allow the participants to draw diagrams and discuss whilst being physically separated. This begins in the classroom and continues remotely. The purpose of this non-assessable exercise is to encourage the metamorphosis of the student from face-to-face customer support to remote customer support. As corroborated by Brown and Thompson, (1997 p77) active learning is further encouraged by the inclusion

of non-assessable activities in each topic of the course, increasing the learning effectiveness.

Another useful tool in Blackboard software is a facility to operate a 'Task Manager'. Each week tasks are assigned in order to evaluate the students' ability to delegate, prioritise and organise. This is monitored and set up to allow students to view the urgency of a task and monitor/flag their own progress in private, whilst still allowing the lecturer to see instantly who is up to date. This is a practice advocated by O'Keefe and McGrath, (2000,p375 citing Burley and McNaught, 1997) "In online courses it was necessary to retain the high degree of interaction and clarification that face-to-face tutorials provide" .

The initial weeks are for the building of a learning community, which then flows on to become online and supportive whilst they participate in their work-based placement. A sense of community is so important according to Bonk *et al.* (2000 p14). The use of the online support and social interaction is to raise confidence in their ability to become online commuters as demonstrated by others (Campbell and Hawksworth, 1999). From our experience, these are necessary skills to allow them to perform, completely online, other tasks, such as the required organisation of a training day. For this the lecturer books the training venue and gives the students clear guidelines on the required outcomes. It is entirely the students' responsibility to organise everything else from advertising, determination of training requirements and production of material, signage, taking bookings and manning the front desk, right through to setting up, completing the training of members of the public and closing down. The lecturer does not have any face-to-face contact with the students until the actual training day.

Weekly activities and use of the calendar and announcements are used to remind each student of the various stages of the course. However the tried and true is not discarded. On day one of Help Desk and several other successful courses, there is a course packet handed out. This includes an overview, schedule and all assessable assignments (no final exams of course). If a student loses any of these, further copies can be obtained from the web. The course sessions online contain all lesson plans, exercises and handouts.

The only document not visible to the students in the Help Desk course is the Lecturer Course Portfolio document. This is a document written after (or updated) each session. This document discusses what worked and what did not. It is designed for the instructors' eyes only. It is a section of the course that the instructor can

use to gauge the instructor's teaching and the corresponding student's learning. It is useful information about the course and the educational context in which it was completed. The instructor's honest reflections are critical. Disasters can be just as important as 'golden moments'. A comment from a colleague made on returning to the office after a wonderful session, "I wish I could have captured that on camera", has been echoed many times in good teaching. Immediately sitting down and writing out what happened is the next best thing. This overcomes academic amnesia. Reading the portfolio before the session avoids pitfalls and boring repetitive teaching that does not bring the reward of 'great session' exclamations.

5. STUDENT EVALUATIONS

Useful indicators of the effectiveness of the teaching are "students' satisfaction about how the course was taught and what they believed they learned from it" and "how a teacher assessed their own teaching" (Yates *et al.* 1999). As promulgated by Yates *et al.* (1999), a high standard of teaching is expected and the process of online teaching is more public and transparent than many anticipate. However, "the process of public discussion actually aids self analysis" (Yates *et al.* 1999).

The lecturer course portfolio has proved to be a valuable resource in providing reflections on both successful and unsuccessful strategies. Comments from this have confirmed the findings of Lehtinen (1999) and others that the most successful strategies are those that involve student collaboration, but with timely and constructive feedback and encouragement from the lecturer. Public castigation of a student is counter productive, and students, and even some instructors, need to be made aware of their social responsibilities in observing general 'netiquette'. From the evaluation of many courses, it appears that many of the qualities appreciated in face-to-face teaching are also those appreciated in online teaching. 'What has contributed to the success of the venture into online teaching has been the adaptations that teachers have made to their prevailing practice.' (Yates *et al.* 1999) The Help Desk course and others have demonstrated this admirably. The adaptation of in-class exercises to online exercises in Help Desk has retained the on-going hands-on approach. This requires continual monitoring and the workload is not insignificant. However, care and attention to online questions and requests for help and guidance can deliver its own rewards. For example the following quotes from hard copy Semester 2 2001 questionnaires:

"I think our end product was good, our communication was great and the overall teamwork was fantastic.'

"Lecturer was very encouraging - thanks M!"

"Support given is outstanding - give you confidence"

"Very satisfied with the course"

"Very good course, I learned much more than I expected!"

In this course, the success of the porting to online of previously face-to-face class intensive lessons in interpersonal skills, and the total online and remotely controlled exercise of the training day have shown that with good monitoring, interaction and genuine interest in the students' progress, unlikely subjects for online teaching can be adapted. Of the courses with a heavy online component, this has been recognised, through a comparison of student feedback, as being one of the more successful users of the online facilities.

6. CONCLUSION

In order to improve delivery, documentation of the social, managerial and technological actions that instructors take are just as important as the pedagogical strategies used by online instructors. For this, the lecturer course portfolio or similar is ideal. Online teaching requires as much commitment to the students as face-to face teaching, albeit via a different medium. Appropriate interactivity is the key to success in online teaching. Students need to be allowed to discuss without intervention, unless help is needed. When help is needed, it should be timely and constructive, and this is why the instructors need to monitor the sites closely. Encouraging messages never go amiss. Instructors and lecturers always put their own flavour on any lesson, and experienced ones will devise innovative ways of using technology.

For the conservative, the following are student learning needs with appropriate uses of online strategy (after Laurillard, 1993) modified through experience by Mae McSparran.

But most important is the commitment of the instructor or lecturer. The successful online instructors have "built up a reputation for having staff that are enthusiastic about their teaching" (Yates *et al.* 1999). Online teaching is not just a matter of hanging your lecture notes on a website. Instructional methods have to change. Online teaching demands hands-on commitment.

Student Learning Needs Level 1	Online strategy
Motivation & Orientation	Clear and current information
Information Handling Skills	FAQs, Sharing, Online resources
Individual choices	Negotiation of topics for study
Student Learning Needs Level 2	
Independent learning Skills	Use of Personal diary, quizzes
Developing Understanding	Collaborative tasks, problem solving exercises
Linking theory to practice	Embed Multimedia and simulations, Use Students as mentors
Student Learning Needs Level 3	
Practising Discussion of ideas	Online debates, sharing etc.
Rehearsing Skills	Interactive activities
Practising Teamwork	Peer work and actual projects

Table 2: Online Strategies to Meet Student Learning

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