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Publication Details

Turbill, J. B. (2002). From face-to-face teaching to online distance education classes: some challenges and surprises. *Winds of Change in the Sea of Learning: Proceedings of the 19th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE)*, 8-11 December 2002, Volume 2 (pp. 671-680). Auckland, New Zealand: UNITEC, Institute of Technology.

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FROM FACE-TO-FACE TEACHING TO ONLINE DISTANCE EDUCATION CLASSES: SOME CHALLENGES AND SURPRISES

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Abstract

Many educators in higher education are now delivering their courses online. For some however this move was initially a reluctant one as it was difficult to perceive how their face-to-face classes could be successfully transported into the online medium. This paper describes the journey of one academic who took on the challenge of developing a knowledge building online distance education community. It describes the model used to guide this process and reports on the interaction that occurred. The challenges and surprises are described.

Keywords

Teaching innovations that work; positive learning experiences, design framework

Introduction

Technology is not my traditional discipline area. My academic background is in language and literacy education and the professional development of teachers in literacy. I have researched extensively in this field over the past 20 years. During this time I was also instrumental in writing and presenting a large staff development program, *Frameworks: Language and Literacy K-8* (Turbill, J., Butler, A. & Cambourne, B., 1991, 1999). The program was successfully run in the USA, Canada, PNG and Australia for over ten years. It trained some 3000 facilitators who in turned trained over 10,000 teachers K-8. My thinking and work have been strongly influenced by the learning theories of Vygotsky (1978), Cambourne (1988, 1995), Kolb (1984) and Fosnot (1996) to name a few. Equally as important in the learning process, I believe, is the role that language plays in learning (Halliday, 1978, 1985). My pedagogy has been influenced by the concept of the teacher as a co-learner or co-researcher (Turbill, J., et al. 1991, 1999), as a facilitator (Turbill, 2002) and as a coach (Joyce and Showers, 1982, 1988). My own research into teacher learning drew on all these theoretical perspectives in order to develop a multi-theoretical model of teacher learning (Turbill, 1994, 2002).

It is this multi-theoretical background that has underpinned my face-to-face constructivist and highly interactive teaching and learning philosophy at both the undergraduate and graduate levels of teacher education in literacy. Since this teaching had been deemed successful over the years (evidenced by several awards for teaching), it was with fear and trepidation, and some negativity, that I felt when faced with having to move my face-to-face-on-campus graduate subjects into a fully online medium. Many questions immediately arose: how do I turn a successful, constructivist, highly interactive, teaching model, in which language-choice and language use played such a dominant role, into an online medium? How would I transfer what I learned about the role that language plays in students 'sharing', 'reflecting', and 'collaborating' from face-to-face classes to an online medium? How would I get to know my students and build the relationships that I believed were imperative in developing a 'community of learners' (Barth, 1990)?

This paper documents the journey that I took in developing online subjects that were based on this same multi-theoretical background. It identifies the framework that guided this journey and describes the design decisions made along the way. In particular, it describes the analysis of student discourse that

occurred on the listserv as students reflected and responded to readings, activities and to each other. And finally it highlights the surprises and challenges that have emerged for me as the 'online teacher'.

Why go online?

During the late 90s there was a strong sense among Australian higher education administrators, who were facing massive reductions in funding, that a move to online teaching and learning would increase the potential for entering new markets across the globe. Bennett, Priest & Macpherson (1999, online) suggest that there was also the belief that, 'the use of new technologies for course delivery will, in itself, attract students.' Furthermore they argued that many university administrators perceived 'online course delivery as potentially cheaper than traditional face-to-face and distance education.' Certainly small face-to-face on campus classes of anything less than 10 students were deemed to be not financially viable. Since the Language and Literacy Specialisation for which I was responsible rarely had more than 6-8 students enrolled in any one of its three classes, it seemed I had two options: close down the specialisation or take the challenge and 'go online'. I chose the latter, hoping that online classes would indeed attract new markets both internationally and nationally and most importantly, mean that the Language and Literacy (L&L) specialisation would thus survive as a strong force within the graduate school.

Restructuring the Language and Literacy Specialisation

A specialisation in the University of Wollongong's Graduate School of Education requires a student to successfully complete three subjects within that specialisation. These specialisations form a major component of several of the graduate programs. Thus a first step was to restructure the L&L specialisation so that the course overall was a far more 'marketable' product. As a course designer I therefore rejigged the three subjects so that they could be embedded into any one of the following programs.

- Graduate Certificate in Literacy Education (GC)
- Advanced Graduate Certificate in Literacy Education (AGC)
- Master of Education in Literacy Education (MEd)
- Doctor of Education (with a literacy specialisation) (EdD)

In order for the L&L specialisation to serve all these programs, it meant that students from any one of these programs would be enrolled in the same subject. All students would do the same work and assessment tasks. However what would differentiate the students would be the level of attainment that they achieved. Students in the GC would need only to achieve a pass (50-64%), those in the MEd would need to achieve a credit (65-74%), while those enrolled in the AGC and EdD would need to achieve at a distinction level (75-100%).

A second step was to reconceptualise the three subjects, their content and their labels. This was a major task and took a great deal of time in researching and reading. It is suffice for this paper to simply name the subjects: Teaching Reading, Teaching Writing and Assessment and Evaluation of Literacy. While each could be a stand alone subject, any student wanting the L&L specialisation had to take all subjects in the order set out above.

A multi-theoretical framework for online course development

As a multi-theoretical framework mentioned earlier had been used as a 'blueprint' for my teaching at the graduate level and for successful staff developing programs (Turbill et al, 1991, 1999; Turbill, 1994; Turbill, 2002), it seemed obvious to assume that it could guide the development of successful online courses. Before describing how it was used as a framework for developing online courses, it is necessary at this point to briefly describe the framework and how it 'works'. The following visual model best depicts my multi-theoretical framework. I call it an 'interactive and integrative model of teacher learning'.

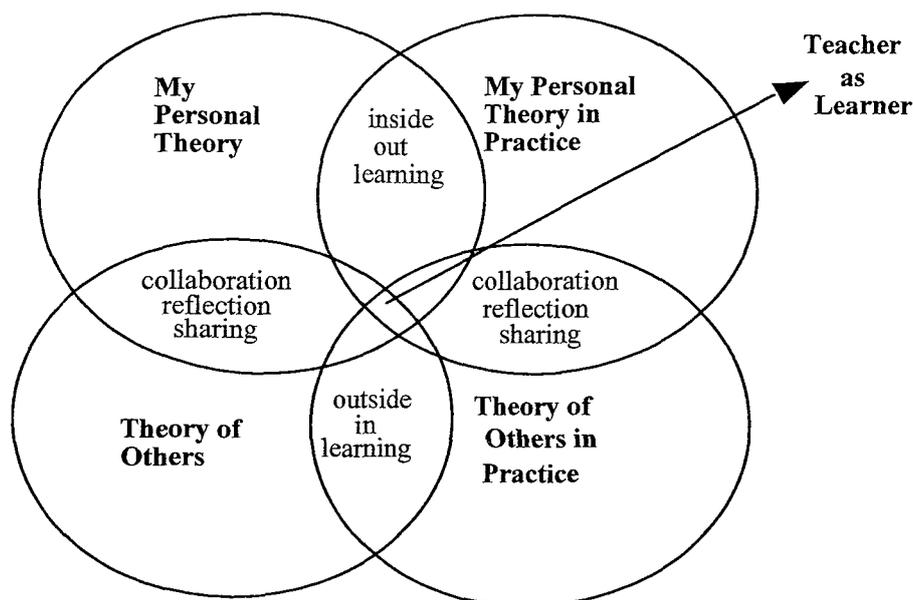


Figure 1. An interactive and integrative model of teacher learning, (Turbill, 1994)

The four circles depicted in the model represent four domains of knowledge that I argue successful teacher learners have and use. Each domain is important and none can stand alone. Furthermore, I contest that for effective teacher learning to occur all domains must operate synergistically.

The four domains of knowledge can be further categorised into the *personal dimension* (the top layer) and the *external dimension* (the bottom layer).

External dimension

Traditionally the teaching at the university level has been positioned within this dimension where information is transmitted to students in an expert-novice relationship. This 'outside-in' form of learning, or 'outer learning' as Fullan (1993) calls it, has a place in learning but it is not enough. Introducing students to the 'theories of others' and how these theories 'work' in practice is a vital component of any course. However if learners are to build the knowledge as their own (as in a constructivist paradigm), my research demonstrates they need to also develop a strong 'personal theory' and be cognisant of how this theory is reflected in, and guides their teaching practices.

Personal dimension

The personal dimension comprises 'my personal theory' and 'my personal theory in practice'. What I have called 'inside-out learning' and Fullan (1993) refers to as, 'inner learning' is a critical component in the learning process. More recently Hiebert, Gallimore & Stigler (2002: 6) have referred to this process as 'practitioner knowledge' that must become 'professional knowledge' through reflective sharing and discussion.

The importance of professionals being able to gain insights into their own thinking, beliefs and values so that they become aware of what drives their practices has long been recognized (Schon, 1984; Cambourne, 1991; Brody, 1994). The model contests that all teacher learners have a 'personal theory' of that which they teach (in my case – literacy). This personal theory frames all that they do, however for many teachers it is often messy, eclectic and lacking in cohesion and usually subconscious or 'tacit' (Polanyi, 1966). My research (Turbill, 1994, 2002) shows that for teachers to build their own professional knowledge they need to begin by making this tacit knowledge conscious and public. Once they begin to do this they are in a better position to integrate 'new knowledge' with their old; their outer-learning with their inner-learning. This process is activated through language: language used while collaborating with others, in sharing and reflecting. Thus language is more than communication. It is a powerful tool for learning and thus plays an important role in that learning.

As learners go through the process of making their tacit knowledge public they also begin to gain a sense of the role that language plays in their learning and thus what role it must also play in their students' learning. In other words through the process of inside-out learning, teacher learners become metacognitively aware; that is, they become aware of their own learning strategies and are therefore consciously able to monitor their own learning experiences. This awareness too begins to spill over to their classroom practice.

In order to activate the 'knowledge building and integration' process outlined in this model, my research found that it is necessary to introduce particular 'structures'. Each structure activates certain learning processes, which in turn incorporates certain ways of using language and therefore leads to developing particular relationships that are vital for learning communities to evolve and operate effectively (see Turbill, 2001 for details).

The challenge, therefore, is in getting the right mix of structures and processes so that optimal learning conditions not only exist but are made operational in such a way they that they become synergistic.

My research in effective face-to-face teaching demonstrated that with a skilful mix of structures and processes such as those listed below, a knowledge building culture is created in which there are sufficient enabling factors to support learners:

- Time for reflection, both written and spoken
- Time for sharing classroom experiences and responses to readings with peers
- Opportunities for collaborative learning in small groups
- Opportunities to try new classroom instructional strategies
- Input (new knowledge) through a variety of media
- Readings that support and extend the various concepts introduced in the courses
- Opportunities to work as co-learners

No structure alone is sufficient, and none is more important than another, but together all can operate synergistically so that any potential inhibiting factor in the learning culture will have only a temporary lifespan as learners work through that which they want to know.

In such learning cultures, trusting and caring relationships develop. Learners become highly supportive of one another's efforts and understandings. A shared meaning begins to develop among the learners, and with it a shared language. This does not mean that everyone has the same beliefs -- far from it -- but it does mean that members of the culture begin to understand one another's perspectives. The learning culture moves toward what Barth (1990) calls a 'community of learners.'

My challenge was to create such a community of learners in an online distance course where none of us sees each other, where the only language modes are reading and writing. I decided to use this same multi-theoretical model to guide the design and development of these online subjects.

Designing the first subject: Teaching Reading

As I ventured into the technology world and the research that was emerging in this new field to me, I was immediately immersed in a new discourse with new acronyms: ICT, IT, CMC, Listserv, Discussion Forums and more. However I didn't have to do this alone. I was fortunate to be able to work with a programmer who helped me transverse the new discourse. I was in a 'knowledge building process' of my own. Together over a period of two months the subject, *Teaching Reading* was developed and put online (<http://www.immll.uow.edu.au/pg/edgr911/index.htm>). For more detail on the subject itself see (Turbill, 2001). The other subjects followed by the end of the year.

What was critical in this process was to mirror the structures and processes that I so readily used in my face-to-face classes. The following tables demonstrate two examples of how I attempted to mirror these 'structures' into an online medium.

	Face-to-face	Online
Structure	Time for reflection, both written and spoken	Opportunities for reflection
Processes	The first 20mins of each class was allocated to small group discussion. Groups orally shared their thoughts on set readings. The expectation was that people came to class ready to share.	A medium – the listserv – was provided for students to share their thoughts on set readings. The expectation was that students would read and respond to each other’s written reflections. The lecturer also read, responded, challenged students in this arena.
Language Use	Students read the readings, underlined points, some made notes. They were asked to <i>identify 2-3 key points and discuss their implication for your teaching</i> . They came to class prepared to listen and talk to each other about the key points each had identified.	Students read the readings. They were asked to <i>list 2-3 key points and discuss their implication for your teaching</i> . Students prepared a written response for peers and teacher to read and posted this on the listserv for all to read and respond to.
Relationships	A safe risk-free environment began to developed. In time students were more were more willing to share, to challenge, to offer alternate views.	Written responses were very ‘formal’ at first. I facilitated the ‘conversation’ in the online discussion by modelling the use of ‘written talk’ as acceptable language use. In time a safe risk-free environment developed and students became more willing to share, to challenge, to offer alternate views.

Table 1. Example #1 Providing time/opportunities for reflection

	Face-to-face	Online
Structure	Opportunities to try new classroom instructional strategies	Opportunities to try new classroom instructional strategies
Processes	Time was provided in class to experience ‘classroom strategies’. Students reflected on experiencing the strategy, its usefulness for their students. They then shared their reflections with peers in small groups. They also shared how they might adapt the strategy to best suit the class that they taught. As a follow up the students were asked to try the strategy with a learner in their classroom, to reflect on how it went and to report back to peers the following week in class.	Students were ask to read about a particular strategy set out in their course readings. These ‘practical instructional strategies’ had been prepared using the headings, ‘Purpose of Strategy’, ‘Procedure’ Students were asked to try the strategy with their class or at least one on their students; to write a description of what happened and a reflection on the usefulness of the strategy for their class. This response was posted online for peers to read and respond to.
Language Use	Students were put into the position of their students. They listened and talked and carried out the strategy. In groups they discussed the usefulness of the strategy. They took notes so they could use the strategy with their own class. They spent time in the next class talking in groups about	Students had to read about the strategy in order to try it with their class. Once trialled, students wrote a description and a critique of the strategy for their particular class and posted it online for peers to read. In time students began to share adaptations of the strategy, as well as similar strategies, with each

	how the strategy went in their classrooms.	other. When a strategy did not seem to 'work' for a particular student, others were quick to offer advice.
Relationships	Group work and discussion brought about cohesiveness among the students. They became very willing to share with each other.	Since students were trying the same strategy there was a sense of 'groupness' online. The students were very willing to share with each other.

Table 2: Example #2 Providing opportunities to try new classroom strategies

I found that while I could not 'mirror' each structure, I could adapt it so that it served the same purpose as in the face-to-face setting. I also was able to then use these structures to form the on-going and cumulative assessments.

Identifying Research Topics

Once I had moved to online delivery I became interested, like others, in investigating further the following:

- How my role changed as an online facilitator (Berge 1995; Burton, 1998)
- How my relationship with the students developed.
- How students interact in an online computer-mediated medium and how this medium impacts on the quality of their learning (Hara, Bonk & Angeli, 2000).
- How we developed into a 'community of learners' (Hill, 2001 cited in O'Reilly and Newton, 2002, p.60).
- How the assessment 'works' in such an environment and how it might impact on online interaction (O'Reilly & Newton, 2002)

What became apparent was that unlike in the face-to-face setting, the data are collected as a result of the course. To collect such data before I had to video and audio-tape classes, have these transcribed and so on. In the online setting, the data are all there for me to revisit whenever I need to. I had a ready made research project.

Research Methodology

Thus from the beginning the whole process was viewed as a research project using a mix of action research (Kemmis & McTaggart, 1982) and case study (Merriam, 1998) methodologies. Burns (1997, p.346) indicates,

action research is the application of fact-finding to practical problem-solving in a social situation with a view to improving the quality of action within it, involving the collaboration and cooperation of researchers, practitioners and laymen.

Kemmis and McTaggart (1988, p.6) describe action research as 'trying out ideas in practice as a means of improvement and as a means of increasing knowledge about the curriculum, teaching, and learning'.

It was also necessary for me as the academic to become a participant-observer within the study, developing a relationship with all the students. Guba and Lincoln (1989, p.11) would label this relationship as a 'respondent as co-researcher' relationships whereby:

human participants [are] accorded the privilege of sharing their constructions and working toward a common, consensual, more fully informed and sophisticated, joint construction, [where] they [are] accorded a full measure of conceptual parity.

Data have been collected in the form of student online discussions, comments and reflections. As well I have kept a reflective journal. From time to time I have also surveyed students via the listserv using informal open-ended questions. Demographic data have also been collected. The latter have clearly

demonstrated that the nature of online delivery has indeed opened up new markets including a partnership with a US university. The numbers of students in the subjects have tripled over the three years and students are enrolling from Japan, Korea, USA and all parts of Australia. The more flexible nature of the online environment has allowed one student, for instance, to follow her husband's career from NSW to Queensland and now to the UK.

Preliminary findings

For someone who was reluctant, even negative, about a move to online learning, I have to admit that I am excited by the outcomes. There are so many different research themes, as indicated above, that emerged from the data I have collected. Overall preliminary findings suggest that an 'online community of learners' developed. The depth of learning demonstrated by the community seems to be of a higher standard than in my past face-to-face settings. As I have long been interested in the role that language plays in learning, it was this area that I felt the need to first investigate. In the face-to-face setting students used each of the language components. That is, in each class they would talk, listen, read and write. In the online setting the students may do a great deal of talking but not with me or their peers. They read and they write. While many similarities exist, linguists assert that written language is not only different from spoken language, it serves different functions (Halliday 1978, 1985).

Thus my first focus has been to investigate the use of computer mediated communication (CMC) as not only a tool for students to share their ongoing assessment tasks with me and their colleagues but also to examine how this tool was being used to develop a community of learners. In doing so I wanted to explore the role that this 'language tool' played in the students' learning.

Much research is emerging from analysis of online interaction that highlights the nature of the interactions in developing knowledge (Hara, Bonk & Angeli, 2000, Henri 1991). The students in the L&L subjects had several avenues for communication. There was email where students could email me or each other directly. There was a website where students responded to the various workshop activities. Then there was the listserv where students were expected to share their responses to set readings provided in each of the 10 topics. They were also expected to read and respond to each other's comments. It is the discourse used on the listserv over one session that I first analysed and report here. Eight students were in this cohort: five from the US and three from Australia. All were female.

Listserv Discourses

The following four themes of discourse emerged:

1. Management and organisation
2. Personal contextualising
3. Professional contextualising
4. Knowledge building

Management and organisation

Management and organisation discourse involved seeking technical support, clarification of the assessment tasks and timelines. Each week I sent a message that 'mapped' the topic that each student had completed. This served the purpose also for the students to check that their work did not get lost in cyberspace. This category played a greater role in the beginning when students were getting started. However it was used throughout by students to check on assignments, completion dates and clarification of some of the online tasks. I took on the role of a 'friendly nagger' from time to time when a student disappeared for a few weeks, or if I thought someone needed further support. Sometimes I needed to email the student directly so that my comments to the student were not public.

Personal contextualising

Personal contextualising included all the 'small talk' that one expects with face-to-face talk. It usually occurred at the beginning of an entry. However it did not occur initially. Most postings in the first few weeks by all students had little personal comment. The analysis of the listserv postings demonstrated that I began my postings with personal contextualising from the start. Since I had worked in the US university where five of the students were from, my comments tried to connect the US students to the Australian students. For instance in one of my early postings, I commented, 'It is pouring here as I write, the wind is

blowing a gale and it is cold – well cold to us Aussies. By Minnesotan standards you wouldn't think it was cold at all – we don't ever get to minus 20F!

My demonstrations of personal contextualising were soon picked up by students on both sides of the Pacific and thus a great deal of the small talk had to do with the weather at first. However there was also a lot of discussion about 'babies' as one of the women was pregnant and another happened to fall pregnant during this time. When the baby arrived we had images of mother, father and child sent out for all to see.

The students also began to share snippets about their surroundings. One of the students from the US wrote, 'as I write a squirrel is trying to get a nut up the tree outside my window'. An Australian student responded, 'How wonderful – nothing so interesting from my window, except my kids fighting with the neighbour's kids – oops I better go check what is going on.'

The Olympics took place during this time so there was much discussion about this event, even some friendly rivalry. The US students soon discovered that their coverage of the Games occurred later than the actual events, so there were often requests to know how a particular team went.

The students also used the listserv to explain why they had not been online or that they were going to be away. They were not required to do this however as one student commented, 'I felt I had to let my classmates know when I hadn't been online for a few days. I didn't want them to worry.'

This type of discourse is very much part of a face-to-face class. It often occurs before class or during breaks. It plays an important role in developing relationships among the group. It leads to a 'safe environment' where students feel comfortable enough with each other to share their ideas and to respond to each other. It seems that in order to develop an online community personal contextualising plays an important role.

The sense that the group began to feel connected was reflected in a comment by an Australian student when she said at the beginning of one of her postings, 'The kids are in bed and I have come into the staffroom to share my thoughts and ideas as I drink my cup of coffee. So how is everyone this week?' Her discourse in the next paragraph shifted into academic genre as she reflected on the set reading.

Professional Contextualising

Professional contextualising mostly grew out of discussion about the between topic strategies the students were asked to trial throughout the subject. This was required as part of the assessment process however the students went beyond simply responding to the assessment task. They shared practical activities that they used, asked each other for ideas and shared websites that were full of practical ideas. The students came from a range of literacy contexts including adult literacy, second language learners, college level and those who taught beginning reading. However this mix seemed to stimulate discussion and sharing rather than limit it.

Professional contextualising also occurred as students responded to the set readings. In these instances the students would consider how a particular theoretical point they had read could be implemented in their classrooms.

Building knowledge

Building knowledge included the required response to each topic's set reading. As students were required to identify 'key points' for them and to discuss the implication these had for their professional context, each entry took on quite a different perspective. Students also picked up on particular comments and responded to each other, offering their point of view and other readings. It was interesting to view how students reacted to readings. One way of describing what seemed to occur can be likened to eating a doughnut. Each seemed to bite into the readings at different places, and as they proceeded through the topics they each took a slightly different perspective. However by the end of the subject each had eaten the doughnut and developed a knowledge base that was both personal yet shared by the group.

What was clearly evident was that the students had developed knowledge in all four domains. They could discuss the 'theory of others' and relate this to how the theory might be reflected in practice. However by

the end of the subject they could also clearly articulate their own personal theory, justify this theory in relation to the theory of others and explain how this theory was reflected in their professional context.

Conclusions

This is a new area of research for me. I am excited, challenged and surprised by it. Yet I am frustrated by it also. I feel confident that the model of teacher learning that I have used to guide the development of staff development for teachers is equally useful to guide the development of online courses. I feel that the outcome of the synergy of the structures, processes, language use and relationships is powerful learning.

The analysis of one cohort of students' discourse on the listserv over the 13 weeks of class demonstrates that the students build knowledge in all four domains and that these four domains of knowledge interact and integrate to build an in depth knowledge of that which they are asked to learn.

I feel comfortable with the role of facilitator that such a learning environment requires, yet I am constantly challenged with just how to keep the learning environment 'active'. I am excited by the deep level of learning demonstrated by students as a result of their online learning experiences. I feel that this learning also has something to do with the amount of sustained writing the students need to do which in turn requires them to read more critically. Language plays a major role in online learning yet it is different.

As with most action research there is no end point. I will keep exploring new plans, reflect on these and try new ones. I need to learn more about maintaining interaction with students in a CMC environment without feeling I am 'nagging' too much. I need to learn more about assessing students in this medium. I know that I assess differently than before. I am much more aware of what students know and understand upon entry into the subject. As I read everything they submit I am far more aware of how much they have learned at the end of the subject. Thus, I find I judge each student against him or herself rather than compare and contrast student against student as I would have done in face-to-face classes. It becomes difficult not to assign students high grades if they have demonstrated in depth personal growth even though the nature of this growth is different in different students. Therefore I want to move more into self-assessment and develop criteria that will enable this process to occur fairly.

I need to learn how to manage my online teaching so that I am not spending inordinate amounts of time reading and responding to my students.

There are many more research projects ahead.

A key point that I have learned throughout this experience is that the use of technology in student learning will not reduce costs, or make teaching easier. It does however have the potential to increase the quality of the teaching and learning. This is clearly demonstrated by the analysis of the written discourse in the listserv interactions. I also believe that the model of teacher learning discussed in this paper has the potential to become a blueprint for guiding others in their online teaching and learning.

References

- Barth, R. (1990). *Improving schools from within*. San Francisco: Jossey-Bass Inc Publishers.
- Bennett, Priest & Macpherson (1999) Learning about online learning: An approach to staff development for university teachers *Australian Journal of Educational Technology* 1999, 15(3), 207-
<http://www.ascilite.org.au/ajet/ajet15/bennett.html> [25th May 2002]
- Berge Z. (1995). Facilitating computer conferencing: Recommendations from the field. *Educational Technology*, Jan-Feb, 22-30.
- Brody, C. (1994) Using co-teaching to promote reflective practice, *Journal of Staff Development*, 15,(3),32-36.
- Burns, R. B (1997), *Introduction to research methods (Third Edition)*. South Melbourne: Addison Wesley Longman Australia Pty Ltd.
- Burton, W. (1998). *Facilitating Online Learning: Charting the conversation*,
<http://leahi.kcc.hawaii.edu/org/tcon98/paper/button.htm> [20th May, 2002]

- Cambourne, B. (1988). *The whole story: natural learning and the acquisition of literacy in the classroom*. Sydney: Ashton Scholastic.
- Cambourne, B. (1991). Ideology and the literacy curriculum: The teaching of phonics. Paper presented at the Australian Reading Conference, Adelaide, Australia.
- Cambourne, B. (1995). Toward an educationally relevant theory of literacy learning: Twenty years of inquiry. *The Reading Teacher*, 49(3), 182-190.
- Duffy, G. (1990). What counts in teacher education? Dilemmas in educating empowered teachers. Presidential Address presented at the National Reading Conference, Miami.
- Fosnot, C. (1996). (ed) *Constructivism: Theories, perspectives and practices*. New York: Teachers College Press.
- Fullan M. (1993). *Change Forces: Probing the depths of education reform*. London: The Falmer Press.
- Guba, E. and Lincoln, Y. (1989). *Fourth generation evaluation*. California: Sage Publications.
- Halliday, M. A. K. (1985) *An Introduction to Functional Grammar*. London: Edward Arnold
- Halliday, M.A.K. (1978) *Language as Social Semiotic: The social interpretation of language and meaning*. London: Edward Arnold
- Hara, N., Bonk, C. & Angeli C. (2000). Content analysis of online discussion in and applied educational psychology. *Instructional Science*, 28(2), 115-152.
- Henri, F (1991). Computer conferencing and content analysis. In A. Kaye (ed) *Collaborative Learning through Computer Conferencing: The Najaden papers*. (pp,117-136). London: Springer-Verlag.
- Hiebert, J., Gallimore, R & Stigler, J. (2002). A knowledge base for the teaching profession: What would it look like and how can we get one? *Educational Researcher*, 31(5), 3-15.
- Joyce, B. and Showers, B. (1982) The coaching of teaching, *Educational Leadership*. 40, 4-10.
- Joyce, B. and Showers, B. (1988) *Student achievement through staff development*. New York: Longman
- Kemmis, S. and McTaggart, R. (1982). *The action research planner*. Geelong, Victoria: Deakin University Press.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice Hall.
- Merriam, S. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- O'Reilly, M. & Newton, D. (2002). Interaction online: Above and beyond the requirements of assessment. *Australian Journal of Educational Technology*, 18(1), 57-70.
- Polyani M. (1966). *The tacit dimension*. New York: Doubleday.
- Schon, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Turbill, J. (1994). From a personal theory to a grounded theory in staff development. Unpublished Doctoral Thesis, University of Wollongong, Australia.
- Turbill, J. (2001, July/August). *A Face-to-Face Graduate Class Goes Online: Challenges and successes*. Reading Online, 5(1). Available: http://www.readingonline.org/international/inter_index.asp?HREF=turbill1/index.html [26th May, 2002)
- Turbill, J. (2002). The role of a facilitator in a professional learning system: 'The Frameworks Project'. In Garry Hoban, *Systems Thinking for Educational Change*, [pp. 94-114] New York: Open University Press.
- Turbill, J., Butler, A., Cambourne, B. with Langton, G (1991, 1999) *Frameworks: A whole language staff development program 3-8*. Stanley, New York: Wayne Finger Lakes Board of Cooperative Services.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.

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