Mentoring Online about Mentoring: possibilities and practice

CATHERINE SINCLAIR
School of Education and Early Childhood Studies, University of Western Sydney, Bankstown Campus, Locked Bag 1797, South Penrith DC, NSW 1797, Australia

ABSTRACT Mentoring is most often associated with direct personal contact between individuals. Computer-based learning, on the other hand, is more associated with the impersonal interaction between human and machine. Recent developments in online technology, however, have paved the way for more personal interactions between people via machines. This article reports on the experience of a university professor and her graduate students as they embarked on learning about the very personal domain of mentoring via face-to-face and online learning. The results in terms of student learning, professional practice and mentoring suggest the benefit of utilizing technology as a support and enhancement to direct personal interaction, not replace it.

Mentors and Mentoring
A mentor is defined as:

an experienced, successful and knowledgeable professional who willingly accepts the responsibility of facilitating professional growth and support of a colleague through a mutually beneficial relationship. (Hutto et al., 1991)

According to the literature, mentors should have outstanding knowledge, skills and expertise in a particular domain and have high status or power in an organization to promote the welfare, training, learning and careers of those they mentor (often called mentees or protégés). Mentors should be committed to the mentoring role and believe in the potential of the mentee. Mentors are expected to be supportive but also challenging, have a willingness to share, and have good interpersonal and communication skills (Daloz, 1999; Hawkey, 1998; Stanulis & Russell, 2000). Mentors should be also able to provide information and assistance, model appropriate practice and provide positive, sensitive feedback regarding mentee development and progress (Daloz, 1999; Elliott & Calderhead, 1994; Fairbanks et al., 2000; Murray, 1991; Stanulis & Russell, 2000).

Further, mentoring has been defined as ‘a nurturing process’ where mentoring functions are carried out within the context of an ongoing, caring relationship.
between the mentor and mentee (Anderson, 1987 cited in Kerry & Mayes, 1995, p. 29). It has also been reported as beneficial in helping and socializing new teachers and student teachers (Fairbanks et al., 2000; Zeichner & Gore 1990 as cited in Hawkey, 1998; Tauer, 1998); as well as enhancing the professional development and practice of new and experienced teachers (Fairbanks et al., 20000; Tauer, 1998). In-person mentoring, however, is not without difficulties. These include the direct replication by mentees of their mentors, the power exerted by mentors that may impede mentee professional growth, and breakdowns in communication (Fairbanks et al., 2000; Hargreaves & Fullan, 2000; Hawkey, 1998; Murray, 1991; Stanulis & Russell, 2000). Further, mentoring may not lead to professional development for mentors because as a humanistic approach its outcomes are unpredictable and highly individualistic (Hargreaves & Fullan, 1992 cited in Tauer, 1998).

Thus mentoring is generally undertaken in a direct personal way. However, is it possible, through the use of computer technology, to also develop a mentoring relationship? What are the benefits and problems associated with online mentoring? What are the results of online mentoring for graduate student learning and professional practice?

**Online Learning**

Online learning generally refers to the ‘delivery’ of a course via the worldwide web. The research literature has outlined the benefits and drawbacks of online learning. For students, the benefits include increased access to learning; flexibility of place, pace and interaction; and immediate feedback on progress (Bell, 1997; Brown & Thompson, 1997; Hart & Gilding 1997; Webb, 2000). Other benefits include increased student responsibility for and control over their learning; increased motivation; increased retention rates; and different pathways to knowledge (Brown & Thompson, 1997; Corderoy & Lefoe, 1997; Ellis, 2000; Hart & Gilding 1997; Kirkwood, 1998; Schavereen & Cosgrove, 1997).

Online learning can also provide flexibility for the facilitator who can view student work anytime and anywhere, and continually monitor student performance (Hart & Gilding 1997). Facilitators can also encourage higher order questions, responses and understanding from students as students reflect on or further research a topic before responding to online discussions (Brown & Thompson 1997; Ellis, 2000; Hart & Gilding 1997; Webb, 2000).

As a pedagogy, online learning is considered more egalitarian and democratic, with students being more comfortable in their own homes ‘conversing’ with other students over the internet rather than feeling intimidated in the classroom (Ellis, 2000, p. 3). Students present their views anonymously or independently, do not have to struggle for a turn to speak in class, and can be sure their voices are heard by everyone (Brown & Thompson, 1997; Russell, 2000). Finally, online learning can promote student independence and self-study, allowing them to seek help from others as the need arises and learn from discussions even if they have not initiated them (Brown & Thompson 1997; Hart & Gilding, 1997; Russell, 2000).

There are also drawbacks to online learning. For students there are problems
associated with student access to the required technology or knowing how to use it; isolation; flagging motivation; and failure to use online discussion boards (Bell, 1997; Corderoy & Lefoe, 1997; Hart & Gilding, 1997; Rossiter, 1997; Williams et al., 1997). There is also a possible fear of appearing stupid in front of their peers as students communicate in text; preference for other forms of information and communication; and failure to complete required work or the course (Ellis, 2000; Hart & Gilding, 1997; Macpherson et al., 1997; Williams et al., 1997).

For facilitators, there are problems of intellectual property and ownership of the material to be presented on line (Ellis, 2000) and lacking skills in software, web-page design and communication interfaces (Hart & Gilding, 1997). Further, online learning can lead to a significant increase in the workload of facilitators to 24 hours a day, seven days a week as students expect the quick responses that the technology can offer (Corderoy & Lefoe, 1997; Hart & Gilding, 1997; Panitz, 1999). There is also the possibility of dismissal once courses are online as computers can monitor the course through record and data keeping (Panitz, 1999).

As a pedagogy, online learning may lack the community and social interaction which develops among a class, and results in a greater time delay between student questions or comments and the response from their teachers than the immediacy of face-to-face communication (Ellis, 2000; Hart & Gilding, 1997; Mullen, 2002; Panitz, 1999). Also concepts may not be as clearly explained as can occur verbally; and online learning can fail to develop critical thinking and reasoning skills (Hart & Gilding, 1997; Panitz, 1999).

However, could online learning and mentoring be combined to overcome these drawbacks and promote effective learning of graduate students who themselves were learning about ‘in person’ mentoring? There does seem to be some common ground between the two as mentoring and online learning are both learner-focused and provide a flexible approach to learning (Brown & Thompson, 1997; Ellis, 2000; Lines, 2000; Roundtree, 1992). It is even considered that email from the tutor or professor can help establish a learning environment that is helpful, responsive and human (Brown & Thompson, 1997). Investigating the experiences of graduate students and their professor as together they explored the concept and practice of mentoring might provide some useful insights into the nexus between mentoring and technology.

**Mentoring Online about Mentoring**

As part of an 18-week, post-graduate course about mentoring early career teachers, students were asked to undertake part of their learning online rather than by means of the more usual face-to-face, campus-based approach. The objectives of the course included the development and implementation of knowledge and understanding of mentoring, the needs and competencies expected of student and beginning teachers, formative and summative evaluation for assessing teacher performance, reflection, and a commitment to and competence in the professional development of an early career teacher. These objectives were to be achieved through full-day campus-based classes, online web-based activities, assignments,
email and web-based asynchronous discussions with other students and the professor.

Students attended campus-based classes for two full days prior to the beginning of the school year (and university semester). On these days they were introduced to each other and their professor, and were introduced to the concept and practice of mentoring and being a mentor. Following this introduction, students would be expected to continue their study of mentoring by completing activities ‘online’ via a website during the first and second school term (four months). After completing the activities and course readings, students were asked via a series of questions to discuss various aspects of mentoring with each other and the professor on the website’s discussion board. Students were asked to participate in four of the seven discussions included in the three online tutorials.

Students also had direct access to email the professor privately in addition to the more public discussion board. During this time students also were required to complete and submit their first assignment, a literature review of mentoring, early career teacher needs and effective professional practice.

The students met again as a group with the professor for a further day in the school holidays at the end of first term to discuss the mentoring programmes they had been implementing in their schools. They also addressed additional issues such as the changing relationships between mentors and mentees (early career teachers), handling difficulties and co-mentoring (Kochan & Trimble, 2000; Mullen et al., 2000) or mutual learning for mentor and mentee. Subsequent to this meeting, students would complete their final assignments which involved written reports of the development, implementation and evaluation of the mentoring programme implemented with their early career teachers.

Participants

The participants consisted of the seven students enrolled in the course. All were studying part-time. All were practising teachers (three elementary teachers, three secondary teachers and one kindergarten to Year 12 teacher). Participants ranged from five years to more than 21 years of experience and occupied positions in their schools ranging from classroom teacher to school principal. Six of the seven participants were female.

The professor (the author) was most comfortable with a facilitative, mentoring style rather than the ‘sage on stage’ approach but she preferred the direct personal approach of weekly classes. Her normal approach was to develop personal mentoring relationships with students: to consider student prior learning and experience, individualize instruction, accommodate individual learning styles, challenge students and promote critical thinking. Conducting the course online was part of her own commitment to lifelong learning, of finding new and better ways to meet the needs of her students who as experienced teachers in positions of authority and responsibility in schools may not have had the time to attend weekly classes. It was also an attempt to try other pedagogies and come to terms with an increasingly computer-based world.
Analysing Online Learning and Mentoring

Student online discussions, e-mail discussions, assignments and anonymous course evaluations were analysed to see if computer technology could facilitate the development of a mentoring relationship and promote higher order thinking, deep understanding, substantive conversations and a change in professional practice. An analysis of online and email discussions for evidence of higher order thinking, deep understanding and substantive conversations was undertaken by adapting three dimensions of the Queensland School Reform Longitudinal Study classroom observation schedule (Hayes et al., 2000) to the printed format of online discussions. The observation schedule provides descriptions and a scoring system that measures the kind of pedagogy occurring in school classrooms according to 20 dimensions in the domains of intellectual quality, relevance, supportive classroom environment and recognition of difference. For the purpose of assessing the learning of graduate students, three dimensions were selected from the intellectual quality domain as being most relevant to the type of pedagogy being implemented (i.e. online learning), the level of education (i.e. postgraduate) and the evidence of student learning (written online discussions). These dimensions were higher order thinking, deep understanding and substantive conversations. The online and email discussions of all participants (students) were then scaled on a five-point scale ranging from least to greatest evidence of each dimension.

The existence of a mentoring relationship was assessed by analysing web-based discussions, emails and course evaluations according to the principles of mentoring from the research literature and outlined earlier in this article. These data sources also provided information as to the benefits and problems associated with online mentoring.

Results

Data revealed insights into the development of student learning, professional practice, on-line mentoring and the role of technology in learning and mentoring. Each will be addressed in turn.

Graduate Student Learning: developing higher order thinking, deep understanding and substantive conversations online

Students’ written evaluations of the course reported that they had learned about the needs and concerns of early career teachers and the transition into teaching as a career. They learned about effective mentoring, different mentoring models and how to be an effective mentor.

Students’ online discussions demonstrated higher order thinking as they synthesized, generalized, explained, hypothesized, concluded and interpreted information and ideas arising from their own experiences and, later in the course, also from their reading of the literature. All students demonstrated deep knowledge of reflective journal writing and action research as they provided information, arguments and
reasoning that demonstrated the complexity of promoting professional growth. All but one student (whose comments were mainly descriptive) demonstrated deep understanding as their comments showed systematic, integrated understanding, explored relationships between ideas, constructed explanations and drew conclusions. As two students wrote:

... In both my experiences, writing a reflective journal empowered me by forcing me [in]to articulating my knowledge, beliefs and understandings of professional readings and teaching experiences, as well as question and explain my learning intentions by thinking deeply about the ways of doing things and why. (Anne, 13/2/01, 5.53 p.m.)

I have ... been part of two action research groups ... on both occasions we began to gather real data not assumed data and to present it to people so that they could see the issues we were striving to correct and bringing to their attentions any small victory. (Helen, 8/3/01, 9.22 a.m.)

Initially, knowledge was generally not seen as problematic although each of the students had their own interpretation as to the value of reflection and journal writing, and gave varying interpretations and constructions of action research. By the third online tutorial, almost half of the student group was beginning to see knowledge as problematic as they juggled with the role of mentoring as support or evaluation as they considered the assessment of early career teachers. As one student wrote:

... I’m still exploring my reasons for not quite agreeing with the idea that the mentor/mentee relationship is likely to be compromised if you are expected to evaluate the mentee ... I understand that the mentoring relationship requires a building of trust, however I feel trust can be developed if you are interactive and work towards a shared, mutually acceptable and negotiated goal. (Carol, 14/4/01, 11.30 a.m.)

All students had substantive conversations. They wrote more than just short answers to the posed questions. Responses were detailed (from 14–63 lines). Students were asked to recount their own experiences with writing reflective journals and action research and how these approaches could be used with early career teachers. However, they took the discussion further and made distinctions, formed generalizations, raised questions of their own, shared ideas with each other, made explicit references to previous comments and were involved in several consecutive interchanges with each other. At times, individual students provided additional information beyond the set questions. By the second online discussion, students were beginning to feel sufficiently comfortable with each other to even begin to disagree. Indicative of a substantive conversation, one student wrote:

I believe that everything we do in the classroom is informed in some way by what we believe or value. This may be conscious or unconscious. A reflective journal is a method for creating meaning, or making conscious our experiences. Most importantly I think it is an avenue for articulating
beliefs and ideas ... I have used the reflective journal as a tool for professional development in a literacy course and an assessment and reporting course. Having undertaken these courses at different stages in my career, I think the benefits and purpose of a journal changed as my experiences widened and my depth of understanding of how students learn increased. Initially the journal served as a type of ‘diary’ where it mainly described my experiences and helped me make some decisions that shaped my beliefs and teaching practice. These entries were mainly emotive and subjective, however, still served the purpose of developing what was termed ‘a self-monitoring early career teacher’... As I was facilitating T&D [Training and Development] that stemmed from the course groups’ reflections, the journal served not only to clarify and affirm my ideas but it also had an impact on the ideas of others.

One difficulty experienced, particularly early on, was that reflections were often hard for me to write as I deliberated on exactly what I wanted to say. I think that these feelings were linked to the fact that my reflective journal had an audience and that the facilitator responded each session to my entries. I think this has an impact for my mentoring relationship. It is important to achieve a balance between an experienced teacher and an early career teacher so that both feel they are equal partners... To draw this altogether [sic] I think the reflective journal needs to be a negotiated thing between mentor and mentee. The format should be agreed upon and the reflections guided by questions or headings that both parties view as important and purposeful. I think what is shared and how it is shared would also need to be considered. So far, my mentee and I have completed a getting to know you task that involved reflections orally and in writing to discover where we’re both coming from. We are now looking forward to really developing the mentoring relationship. (Carol, 14/02/01, 9.52 a.m.)

Substantive conversations did not develop, however, when students had a choice of more than one online discussion in which to participate. On these occasions (online tutorials 1 and 3), only one student participated in the alternative discussion and so in these cases, there were no responses by other students. As this student commented, ‘It’s me again, trying to respond to a task which everyone else chose to avoid’ (Helen, 5/05/01, 5.17 p.m.). Also by the end of the semester, students were tiring with ‘no more energy left’ (Helen), finding it difficult to submit assignments and with only two students responding to the final discussion of the third online tutorial.

**Changing Professional Practice**

Students’ written evaluations of the course reported that they had implemented the roles of a mentor and changed their own practice of supporting and guiding
colleagues by asking questions to promote independent and critical thinking. They considered that they had improved their listening skills, communication skills and empathy by being required to mentor teachers in their own schools. They also reported that they reflected more on their own practice and paid more attention to the needs of early career teachers.

The final assignments, reports on their mentoring programmes for early career teachers, meant that all students had implemented a newly designed mentoring programme in their professional practice as a result of their learning from the course. The reported outcomes of these programmes for the students as mentors (as distinct from the mentees or early career teachers) included:

- Learning about themselves and ‘what’s worth fighting for’ (Helen). This learning was brought about by an opportunity to reflect on one’s own knowledge, beliefs and practice; and, ‘an opportunity to refine the theory into working practice’ (Carol). It was also the result of the development of specific skills such as listening, observing, reframing, counselling and empathy; and an increased feeling of self-worth as a result of assisting a colleague’s professional development.
- Learning about other people: their strengths and weaknesses, their skills, needs, achievements and views on children and learning; and, a recognition and acknowledgment of their professional contributions to the school.
- Learning about the school and the perceptions of people within the school about the strengths and weaknesses of structures and school organization: an interaction that provided new insights and professional renewal.
- Opportunities to share knowledge, skills and understandings accumulated over a period of time working in schools.
- Learning about leadership and purposefully building a team through listening and being prepared to ‘show your own nakedness and insecurities by being seen as a person’ (Helen).
- Making teaching a more satisfying profession.
- Extending the newly gained knowledge to a wider arena beyond the school by participation in district committees.

As one student wrote:

I have been given an extraordinary opportunity to get to know the new Head Teacher English ... I have been privileged to hear of the perceptions of my co-mentors of the unique stressors on Head Teachers. This has given me insight into ways these can be reduced. For one of the members of the group this has been invaluable, causing me to understand just how fragile he is and how close he is to leaving education.

The time spent with the various groups of Head Teachers ... has been stimulating, motivating me to examine many of my practices and to reflect on the ideas which have been so openly shared. Principals have no monopoly on wisdom and that needs to be acknowledged by all. (Helen)
Developing a Mentoring Relationship through the Use of Computer Technology

The overall course evaluation according to the students was 4.5 (out of 5) with all responses lying between the highest scores of 4 and 5. Student written evaluations of the course reported that individuals enjoyed the on-campus seminars; the opportunity to get to know each other; knowledge gained through discussion with others in the group and reading; and meeting and learning from each other. While one student liked not having to attend campus each week, another would have preferred fewer on-line discussions and more face-to-face classes.

My participation in online discussions was timed to encourage maximum conversations ‘between’ students rather than develop ‘question and answer’ between myself as the teacher and the students. I did not wish to direct the discussion and, reflecting adult learning theory (Connors, 1989; Jarvis, 1995; Knowles et al., 1998; Meade, 1990; Pratt, 1993; Reiman & Thies-Sprinthall, 1998; Sellars, 1990), wished the students to talk to and learn from each other. Therefore, I participated in each online discussion only after most of the students had contributed. As I emailed the students:

I am … trying to avoid question and answer between each of you individually and myself or the feeling that my ideas are the only correct ones. I will attempt to correct any misconceptions as I see them … (27/3/01)

I emailed responses individually and collectively to students after the completion of their first online tutorial discussion. General comments were made to the entire group. Personal, private comments were sent to individuals about their own particular contributions to the online discussion, particularly in line with the published criteria for online discussion responses set out in the course documentation. My discussion board and email comments demonstrated interpersonal interactions and dialogue in all conversations. My comments indicated that the two most frequent mentoring roles I undertook were providing feedback to students on their performance online (19.4% of comments made) and challenging students, generally by posing questions about their mentoring approach and the topics under discussion (17.7% of comments). I also frequently provided advice and guidance about online tutorials and assignments (14.5%); information about enrolment and progression in the course, assignments and the topics under discussion (12.9%); and support for students in overcoming personal and course difficulties, assignment extensions and participating online (11.3%). Less frequent comments related to the mentoring roles of teaching and coaching about the topics under discussion and completing assignments (8.1% of comments); and sharing my own experiences (6.5%). Infrequently, I acted as a sounding board for students about their personal and course difficulties (3.2% of comments); promoted their strengths and worth to others in the group (3.2%); was engaged in mutual or co-mentoring (1.6%); and helped them with their professional roles and responsibilities (1.6%). Students, however, began to engage in co-mentoring, supporting and helping each other with resources, references and ideas. The nature of the online mentoring through discussion meant
that there was no opportunity for modelling. An example of providing resources comes from Barbara who wrote:

Hi everyone. Just wanted to let you know that I’ve been browsing the net tonight (instead of doing my second online tutorial) and it’s interesting to note how many different mentoring programs there are out there for beginning teachers, especially in the States … . I’ll include an extract from ‘A new teacher mentoring knowledge base of best practices. A summary learned from practitioners’… (6/02/01, 10.46 p.m.)

Anonymous student evaluations of the course also suggested that I undertook these roles. However, they added that I had an ‘excellent understanding of the topic’, was interesting, approachable, friendly and ‘extremely understanding and flexible when it came to empathizing with students who were juggling study and work’. Thus to students I had exhibited the attributes of mentoring of having outstanding knowledge in a particular domain as well as the personal attributes of caring, nurturing, supportiveness, challenging, sharing yourself, patience and providing positive, sensitive feedback.

**Benefits and Problems with Online Mentoring**

Students had initial difficulties in getting online. They wrote of how they had to beat or cheat the system to get into the website, the pragmatics of putting their ideas online without the risk of losing what they wanted to say halfway through and difficulties in downloading the online tutorials. An indicative comment came from one student who wrote, ‘Hi, everyone. I haven’t really been lost in cyberspace … . It just took me a few times to get through the correct route to this place!’ (Carol, 14/2/01, 9.52 a.m.).

Once all students were ‘up and running’, however, there were fewer comments about the technology and individuals began to report the benefits of online tutorials. One student even reported that she had learned how to use a discussion board. According to the students, online tutorials enabled them to have control over their own learning and flexibility in choosing when to respond to the tutorial discussion. While there was a time limit to respond to each online discussion, it was fairly extensive, being only three times during the semester. Each online conversation ranged over a six-week period. While there were set questions these were open-ended in format and students (except one) tended to write in prose form rather than just answer each question in turn. Students participated at varying times from early morning (7.23 a.m.) until late at night (12.04 a.m.) on any day of the week. As Helen, a school principal, commented, ‘I find using [on line tutorials] really useful because I am not tied down to place or time. I tend to work late into the night and often can only get onto the net after my son has turned in. So it is a valuable means of interacting as well as a way of dragging me screaming and kicking into 2001’ (email 26/3/01, 5.43 p.m.).

However, there were some other difficulties attributable to the technology. Longer responses needed to be ‘posted’ to the discussion board in two to three parts and
some students continued to have difficulties downloading the tutorials. Such problems led a couple of students who were struggling with their studies to consider giving up the course, particularly when they also experienced difficulties at work at the same time.

**So What Has Been Learned from this Experience of Online Mentoring?**

The data have provided some new insights into the possibilities and practice of developing an online mentoring relationship as well as its associated benefits, problems and results for student learning and professional performance.

**About the Development of a Mentoring Relationship**

Like earlier research into mentoring, this experience has demonstrated that students value mentoring support (Booth, 1993 cited by Hawkey, 1998) even when it is online rather than in person. Strategies which facilitated mentoring online reflect and add to that provided in the literature. In agreement with Ellis (2000), this experience has shown that it is important to focus on the individual, determine their learning style and help them use their strengths to achieve success. This experience also demonstrated the importance of developing a mentoring relationship of trust and open communication with students before expecting open and honest communication online. It showed the necessity of assessing the individual’s total life situation, showing flexibility and understanding particularly in terms of assignment and online participation deadlines. For example, the deadline for completing the first online tutorial was post-phoned as students had experienced difficulties getting online due to delays in the processing of their enrolment and problems with the provided usernames and passwords, both of which meant they could not access the course website. It was important to devise a plan that was reasonable and practical for the students and met the university’s expectations. In addition, there was a need to create a balance between the mentoring principle of immediacy in response by the mentor to student questions, with the adult learning principle of students learning from each other. Creating the right balance can lead, as it did in this case, to the development of a supportive, cooperative learning environment for students. It can also lead to more substantive conversations among students rather than the more typical student–teacher interaction of teacher question, student response and teacher evaluation of the correctness of the response (Hayes *et al.*, 2000).

**About the Benefits and Problems Experienced in Online Learning and Mentoring**

Some of the benefits and difficulties experienced by students were similar to these already reported in the literature. For example, online mentoring did provide students with control and flexibility in their learning (Mullen, 2002). It also increased their access to the course as students came from greater distances than usually is the case for weekly tutorials. The online nature of the course allowed students to seek help from each other at any time when they needed it (Brown &
Thompson, 1997) rather than waiting for weekly tutorials on campus. It also enabled them to learn from discussions they may have not initiated (Brown & Thompson, 1997) as all conversations were public on the website rather than private to participating individuals in their verbal communications. Of course, private conversations were still possible through private email and phone conversations.

As Panitz (1999) reported, there can be time delays between students posting their comments and receiving responses from the professor rather than the immediacy of face-to-face communication. Also like earlier studies there was the ‘flagging’ motivation of students working in an online environment (Hart & Gilding, 1997; Rossiter, 1997). For the professor, some concepts were more easily explained verbally than in writing and I needed to develop new skills related to software, webpage design and communication interfaces (Hart & Gilding, 1997). Online mentoring also increased my working hours as I could be reached by email 24 hours a day and students expect quick, individual responses (Corderoy & Lefoe, 1997; Hart & Gilding, 1997; Mullen, 2002; Panitz, 1999).

Like Ellis (2000), the present experiences demonstrated that mentoring online requires constant vigilance as people whose lives are too complex to attend campus-based classes can find themselves falling behind with their course. Mentors must also be particularly sensitive in their communications with mentees as it is easier to convey encouragement and support as well as a gentle challenge in person than it is through the written word. Written communications must be clear, complete and comprehensive (and the current experiences found just how time consuming that can be).

In contrast to earlier research, there was no problem with inclusiveness among the students (Mullen, 2002) as the subject was the first one undertaken by all students as they commenced the Graduate Certificate of Mentoring and the group was small (seven students). Like Mullen’s (2002) study of doctoral students, but unlike many other studies, only some, not all, of the students preferred an online learning pedagogy. This result may reflect the nature of the students themselves. In this case the students were schoolteachers, who operate in a very people-orientated profession and teach in real, not virtual, classrooms. Therefore, some students may have been more comfortable with and preferred the familiar, personal approach.

Also, the current online mentoring experience did not lead, as reported elsewhere, to a lack of personal communications (Ellis, 2000; Hart & Gilding, 1997; Panitz, 1999) as the professor and the students met for a significant period of time over two consecutive days before moving the course online. Students were not intimidated by classroom or online discussions, likely due to the initial establishment of an open and supportive campus-based classroom prior to undertaking the online tutorials. In contrast, students were most supportive of each other. For example, one student, Rob, posted helpful hints on posting to the discussion board in response to Anne’s question as to why her ‘format’ on the board was different to others (13/02/01, 5.55 p.m.). In turn Rob then asked how to ‘download the 2nd [sic] tutorial in a readable format’ (14/02/01, 9.05 a.m.). Advice and support among the students on personal, technological and academic matters continued right throughout the course. However, without the initial face-to-face contact, some students may be
intimidated by the very public nature of their comments being situated on a website. Students can fear appearing stupid in front of their peers as their communications are recorded in text not verbal interchanges (Ellis, 2000). It is, therefore, important to develop (and publish in subject documentation) a 'net'-iquette or etiquette for online discussions to foster a supportive, cooperative environment rather than a possibly confrontationist one.

Also, the current experience did not support Panitz, who found that online learning did not lead to the 'development of [the] seasoned, critical reasoning and thinking skills obtained through face-to-face discussion, disputation and deliberation with other living human beings' (1999, p. 12). In the present experience and demonstrated earlier in this article, students did demonstrate such reasoning and thinking skills, in particular, higher order thinking, deep understanding and substantive conversations.

Also contrary to research which found that students did not use the online discussion boards (Bell, 1997; Corderoy & Lefoe 1997; Hart & Gilding, 1997), the present experience found that students did use the discussion board but this was probably because it was part of their overall course assessment (20%). Assignment-based participation was most evident when the online dialogue did not involve several consecutive interchanges between all students or when students did not respond to student-generated questions in the alternate discussions undertaken by only one student. Thus students considered their online conversations as assignments to be completed rather than 'virtual' tutorials. It was also found that consecutive interchanges were facilitated by longer rather than shorter deadlines for posting discussion board responses.

In contrast to studies reporting online technology as increasing retention rates (Ellis, 2000), the present experience has shown that students who experience difficulties with the computer-based technology can consider leaving the course. Like earlier studies, students needed to have the required technology and know how to use it; to be trained in how to use the technology before the course began; and have technological support during the course (Corderoy & Lefoe, 1997; Hart & Gilding, 1997). These preliminaries were not undertaken in the present experience.

**About Student Learning and Professional Practice**

Implementing mentoring principles in the online and face-to-face conduct of the course on mentoring led to student learning and improvements in professional practice. Like earlier studies, the data have shown that the professional development of experienced teachers was enhanced and it allowed them to obtain satisfaction in helping teachers 'get through' their first year of teaching in a particular environment (Tauer, 1998). It also allowed them to take pride in realizing the worth of their own pedagogical and practice knowledge to others (Tauer, 1998). Further, acting as mentors reinforced their existing beliefs and practices, enhanced their self-esteem, revitalized interest in their work and enabled them to develop close relationships with their mentees (Murray, 1991; Tauer, 1998). In addition, being in a mentoring relationship with the professor as their mentor enabled the participants to reflect on
mentoring strategies and to incorporate them into their own practice. Like Liddell’s study (1997), this experience allowed participants to acquire specific information (in this case about mentoring); obtain the support and encouragement from the mentor; and to enter into discussions at any time and without the need to be involved in simultaneous engagement.

The type of questions asked fostered the level of participants’ thinking, knowledge and understanding as exhibited in their discussions. For example, participants reported reflecting on issues before responding to the online discussions. Anything but momentary reflection is not always possible in the immediacy of in-class discussions (Brown & Thompson, 1997; Hart & Gilding, 1997). Also, participants may consider their responses more carefully when they are aware of the public and lingering nature of their responses on the website rather than a quick verbal comment that exists momentarily in class. Further, initial discussion board questions related to personal experiences assisted the adult learners to enter into discussions as well as leading to opportunities for them to connect with their background knowledge and experiences. However, once participants have entered and feel comfortable with the online medium, it is important to push their thinking to higher levels of synthesis, generalization, explanation, hypothesis, interpretation and conclusion drawing. This thinking will enable participants to solve problems, discover new meanings and understandings, and construct knowledge. Questions that ask participants to apply their learning to the larger social context in which they live and work (in this case mentoring early career teachers) develops a connectedness to the world and the application of the newly created knowledge beyond the university or online classroom.

In Conclusion

As Panitz (1999) reported, ‘technology can never replace the affective nature of education created by face-to-face interaction between students and between students and teachers’ (p. 1). From the online mentoring experience of this university professor and her graduate students it has been found that while the technology cannot replace the affective nature of education, it can enhance that experience, particularly when students are absent from the university campus for long periods of time. The enhancement is likely when the following three elements are evident:

- principles of mentoring are implemented in the conduct of the course;
- the set activities encourage higher order thinking and substantive conversations among adult learners; and
- authentic assessment methods encourage students to put into practice what they have learned.

Notes

[1] Early career teachers are student teachers and qualified teachers within the first three years of professional practice in schools.
Earlier courses had been conducted on campus over 14 weeks, by means of a single, two-hour evening class each week.

Access to the website was, however, limited to the students enrolled in the course and their professor.

All participants are quoted by pseudonym, have given their permission to have their comments included in this paper and have read the paper in its entirety.

One student reported on a mentoring programme for new executive teachers in the school.

References


