Electronic networking in initial teacher education: is a virtual faculty of education possible?

John Pearson

Faculty of Education, Monash University, Churchill 3842, Australia

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Abstract

This article is a report of the use of an electronic network by trainee teachers in a ‘school-based’ initial teacher education course to facilitate discussion between participants. A rational for incorporating computer conferencing, drawing on teachers’ knowledge and how this might be acquired, is presented. The potential of electronic networks for sharing ideas about teaching, and encouraging ‘reflective practice’, is examined. Features of one application of electronic working are briefly described, and data are reported on the extent to which the potential of the medium was realised with the trainee teachers in a specific case. Deeply held concerns about computer conferencing by these trainees indicates that participation in a ‘virtual community’ cannot be assumed when computer conferencing is introduced into initial teacher education courses. © 1999 Elsevier Science Ltd. All rights reserved.

1. Introduction

In the last ten years, there has been considerable interest in the educational applications of electronic networking (Harasim, 1990; Mason & Kaye, 1989). Numerous reports have appeared about electronic networking in K–12 schooling (Riel, 1990, 1993; Wells, 1993), place-based undergraduate courses (Hiltz, 1986, 1990; Hiltz & Turoff, 1993), and distance education courses (Hansen & Gladfelter, 1995; Harasim, 1987; McCreary, 1989). The extensive literature presents numerous examples of the ways in which electronic networking can facilitate educational outcomes in these learning contexts.

E-mail address: john.pearson@education.monash.edu.au (J. Pearson)
In contrast, the literature about the use of electronic networking in teacher education is not extensive. Only a limited number of reports which document the use of electronic networking in professional development activities with experienced teachers (Muscella & DiMauro, 1995; Odasz, 1992; Tsui & Ki, 1996; Schrum, 1992), for induction support for beginning teachers (Beals, 1991, 1992; Merseth, 1991), and in initial training (Bull, Harris & Druker, 1992; Canning & Swift, 1992; Selinger, 1996) have been published. Most of these reports have been descriptions and evaluations of specific applications, rather than investigations of the extent to which explicit course objectives have been realised in practice. Hence, additional research is needed to explore the ways in which this new medium might contribute to the acquisition and maintenance of professional knowledge in the field of teacher education. Recent reports indicate that research of this kind is now underway (Selinger, 1998; Watson, Blakeley & Abbott, 1998).

The introduction of an alternative ‘school-based’ course in initial teacher education—in which participants (university staff, classroom teachers and trainee teachers) had access to an electronic network—presented an opportunity to investigate the potential of electronic communication in the study and development of professional knowledge about teaching. Of particular interest was the extent to which electronic networking in this alternative course would provide opportunities for participants to share information about the knowledge base of teaching, and to adopt ‘reflective approaches’ to the study of classroom events and practices. This research also seemed to be important for practical reasons; the difficulties of staffing alternative courses of initial teacher education (Williams, 1995), and rapid developments in new communications technology, may lead to attempts to make greater use of a ‘virtual faculty’ in the initial training of teachers. Hence, research of the kind reported here may be valuable in informing other attempts to introduce electronic networking, enabling potential difficulties to be handled appropriately.

2. School-based initial teacher education

While the concept of ‘school-based’ initial teacher education has a long history (Dow, 1979; McIntyre, 1988), interest has intensified as a result of government initiatives in the 1980s and 1990s in the UK (Department for Education, 1993; Wharfe & Burrows, 1990; Williams, 1995). Similar interest in the notion of ‘partnership’ between schools and universities in the initial education of teachers has been shown by teacher registration authorities in Australia (Board of Teacher Registration, 1994; Standards Council of the Teaching Profession, 1995).

Amongst teacher educators, interest in the idea of developing initial teacher education courses based on close university-school relationships, and the outcomes which are expected to accrue from locating a significant component of professional preparation in schools, has centered on understandings about the kinds of knowledge which can be made available to beginning teachers and the ways in which this knowledge can be acquired.

For instance, the Oxford Internship Program identified findings from research, the ‘craft knowledge’ of experienced teachers, and the ‘knowledge, common sense and wisdom of teachers and teacher educators’ (McIntyre, 1988: 103) as important sources of knowledge
about teaching. Experience in schools played an important part in acquiring this knowledge—research findings could be considered in relation to particular contexts, the ‘sophisticated thinking’ involved in craft knowledge about teaching could be articulated, and the impact of ‘practical matters’ such as organisational and resource constraints could be evaluated. Experience in schools provided access to these sources of knowledge, and opportunities to consider how different kinds of knowledge might impact on teaching. In addition, reflection on practice in school settings enabled trainee teachers to examine different perspectives on teaching, the ways in which ‘their own current perspectives have been shaped by personal histories and especially by their temporary roles as interns’, and to test ‘suggested ideas and practices against a variety of criteria’ (McIntyre, 1988: 108).

Similar views have been presented by Shulman (1987) who recognised that the ‘wisdom of practice’—‘the maxims that guide (or provide reflective rationalization for) the practices of able teachers’—were an important knowledge base of teachers. He also noted that much of this knowledge had been unrecorded:

Practitioners simply know a great deal that they have never tried to articulate. (Shulman, 1987: 12)

Shulman considered that difficulties in accessing this knowledge arose because teachers had no audience with which to share their work and no system of notation to record practice:

One of the frustrations of teaching as an occupation and profession is its extensive individual and collective amnesia, the consistency with which the best creations of its practitioners are lost to both contemporary and future peers... teaching is conducted without an audience of peers. It is devoid of a history of practice. Without such a system of notation and memory, the next steps of analysis, interpretation, and codification of principles of practice are hard to pursue. (Shulman, 1987: 11–12)

According to Shulman, access to practical wisdom depends on the sharing of information about teaching. Sharing information about teaching requires an audience of other practitioners with similar interests, and a system of notation for recording ideas about practice.

However, reflection is also needed to learn from experience. According to Shulman (1987: 19), reflection is:

…what a teacher does when he or she looks back at the teaching and learning that has occurred, and reconstructs, reenacts, and/or recaptures the events, the emotions, and the accomplishments. It is that set of processes through which a professional learns from experience.

Making knowledge about teaching accessible, and encouraging trainee teachers to adopt ‘reflective approaches’ to their own practice are important aims of initial teacher education courses. The potential of electronic networking to facilitate these aims is explored in the following section.
3. Electronic networking

Audience and notation (sharing ideas), and reflection (learning from experience), are important in investigating and acquiring knowledge about teaching. But teachers often have no audience with which to share their work and no system of notation to record practice (Castle, Livingstone, Trafton & Obermeyer, 1990; Castle, McLure & Gillingham, 1991). The opportunities for ‘reflective practice’ are often limited, and extensive support is often required if ‘reflective practices’ are to be successful (Roth, 1989; Wildman & Niles, 1987). The potential of electronic networking, and computer conferencing in particular, for sharing (audience and notation) and reflection is now briefly examined.

3.1. Audience

Computer conferencing has emerged as an important educational application of electronic networking. It has been acclaimed as a new ‘domain’ (Harasim, 1989: 50) or ‘paradigm’ (Mason & Kaye, 1989: 23), for educational activity and used extensively in distance education courses to facilitate communication between participants in widely dispersed locations, and in place-based tertiary courses as an adjunct to face-to-face discussions. These applications indicate that computer conferencing on an electronic network has the potential to create an audience (forum) for classroom teachers, student teachers and university tutors to access, discuss and clarify professional knowledge about teaching. Three features of the application suggest this is possible.

3.1.1. Many-to-many communication

Messages sent to ‘conferences’ are available to all participants with accounts on the network. Each conference is a ‘shared space’ which ‘focuses and organises the group discussions’ (Harasim, 1989: 52). Participants can read messages contributed by others, comment on these or add their own ideas in new messages. Hence, computer conferencing has the potential to facilitate group interaction and the exchange of information.

The possibility of many-to-many communication on an electronic network may be an important innovation in initial teacher education courses. An electronic ‘shared space’ may provide a unique opportunity for participants to share knowledge about teaching in a way which has not previously been possible. Active dialogue amongst a wider audience on an electronic network may present new opportunities to identify and examine concepts and techniques in teaching, and to delineate the implications of these for classroom practice.

3.1.2. Place-independent group communication

Electronic networks can facilitate collaboration between participants who are not geographically proximate. Potentially, common interests and particular expertise can be shared more widely.

This attribute may be significant in initial teacher education courses because of the distributed locations of participants. Travel to common locations for seminars, and inconvenient meetings scheduled after school hours, could be avoided if an electronic network was available. Importantly, an electronic network could bring all participants together, rather
than restricted sub-sets (tutors and student teachers in a university seminar, or teachers and student teachers in a school) which is usually the case in traditional teacher education courses. A larger group, representing a broader range of interests and expertise, could be anticipated to facilitate the discussion of concepts and techniques about teaching. However, minority interests could also be accommodated (Graddol, 1989), with separate conferences created for special interest groups which emerge outside mainstream discussions.

3.1.3. Time-independent communication

Unlike face-to-face discussions, computer conferencing is based on asynchronous communication. This may also have considerable advantages for group interactivity and discussion.

Participants in computer conferences have control over the timing of their interactions. Instead of physically attending meetings scheduled at a particular time, messages can be accessed when it is convenient to do so. Participants also have control over the pacing of their involvement; they can read messages from others and compile their own messages when they are ready to do so.

One of the reported advantages of electronic communication is that the inhibitions felt by many participants in face-to-face meetings can be minimised. There is no competition to have one’s opinion heard, no time restrictions on the expression of ideas, and no interruptions by assertive members or chairpersons. Contributors who need time to formulate and present ideas can participate to the same extent as more confident and assertive individuals (Harasim, 1990: 47).

This feature of electronic communication may also have potential advantages in initial teacher education courses. Electronic communication overcomes practical difficulties associated with attending meetings. Moreover, the asynchronous nature of communication allows time for individuals to research, formulate and present ideas, which may be important when participants have different knowledge about, and experience with, ideas and practices which might be discussed. Delayed communication may assist all participants to contribute, not only those with existing knowledge and experience, or those who might initially be more confident in presenting ideas.

3.2. Notation

Contributions to computer conferences are text messages which are permanently stored on the host computer. These messages provide a unique record of concepts and ideas discussed on the network. Case studies of computer conferencing have indicated that text-based communication has several advantages in group interactions.

Harasim (1990: 51) reports that ‘online educational interactions, being revisable, archivable, and retrievable, augment the user’s control over the substance and process of the interaction’ on the network. She explains the importance of recorded messages in the following way:

Users… have more control over the nature of their interactions than they have in face-to-face environments: they may read all items, read items selectively, or merely scan. They may save particular items to disk or print them to be used in later or more intensive review.
Transcripts of group interactions can [also] be recalled for retrospective analysis… (Harasim, 1990: 52)

Harasim (1990) also claims that the expression of ideas as written text—distributed electronically—requires participants to clarify their own thinking before contributing messages to conferences. This presents:

…the opportunity to make explicit to oneself the aspects of an activity that are usually tacit—for example, expressing the thinking processes by which a decision or conclusion is reached, or the strategy for accomplishing some task. (Harasim, 1990: 49)

The exchange of text-based messages also encourages ‘active’ (Harasim, 1990) and ‘self-directed’ (Mason, 1988) learning since interaction is dependent on participants accessing the network frequently to follow conferences, read and comment on messages by others, and compose and submit their own contributions to conferences.

Other aspects of text-based communication are claimed to facilitate communication. These include the absence of social and physical cues which focus attention on ‘the content [of messages] rather than the presenter’, and a reduction of ‘the stereotyping associated with high external social status and physical appearance, thereby removing a significant barrier to equal participation’ (Harasim, 1990: 49–50).

Hence, computer conferencing may provide an opportunity to notate educational ideas and practices. As the number of conference messages increases, a rich database of material would be available to provide guidance and support with practical activities and to help student teachers develop understandings of educational issues and practices. In the development of this database, student teachers could play a very active role in their own learning as they ‘test’ their ideas about teaching, articulating their concerns (in written messages) and improve their understanding of issues on receiving advice (reading messages) from other participants.

However, while the exchange of written messages has been found to have some positive benefits on group communication, it must also be noted that the loss of some of the features normally associated with face-to-face discussions is sometimes perceived as inhibiting by participants (Trushell, Reymond & Burrell, 1998). This is often the case in the initial stages of using this new medium (Wilson & Whitelock, 1998). These inhibiting factors include: (a) the lack of physical cues (facial expressions, voice intonations, gestures) and nuances of speech (humour, irony); (b) the ‘vulnerability’ of contributing ideas to a conference when the reactions of other participants cannot be anticipated; and, (c) the difficulty of managing large amounts of information in active conferences (Harasim, 1990: 50).

It could be anticipated that the loss of social and physical cues for participants in an initial teacher education course might be difficult to predict. For instance, extensive experience with face-to-face communication may mean that participants find the loss of cues in electronic communication disconcerting. In addition, differences in the knowledge base of participants, their lack of familiarity with each other before the course commenced, and varying levels of skill in written communication, may lead to feelings of ‘vulnerability’ about contributions to conferences, especially in the early stage when experience with the medium would be limited.
3.3. Reflection

Electronic networking may also present new opportunities to support reflection (learning from experience) in initial teacher education courses. Several characteristics of the medium help participants investigate and clarify issues and practices involved in learning to teach.

The asynchronous nature of electronic communication enables participants to research and clarify ideas before contributions are made to conferences. This may be particularly important when participants have different knowledge about, and experience with, ideas and practices which might be discussed.

Text-based communication provides opportunities for participants to seek clarification about ideas and issues raised, to outline the processes by which decisions are reached, and to synthesise ideas from a variety of sources. Hence, text-based communication encourages participants to make knowledge about teaching explicit, and therefore accessible to analysis from different perspectives.

3.4. Computer conferencing

The use of computer conferencing in initial teacher education courses has the potential to be an important innovation in professional education and training. However, the potential of the medium has yet to be fully established. The evaluation of electronic networking reported here, which focuses on the behaviours of trainee teachers, provides some additional insights on which the efficacy of the medium in initial teacher education courses can be assessed.

4. The ‘school-based’ teacher education course

The ‘school-based’ program, introduced in the fourth year of an initial teacher course, aimed to engage trainee teachers in:

- co-operative planning, teaching and reflective practice with professional colleagues;
- maintaining a reflective journal;
- teaching regularly across curriculum areas;
- attending and presenting at curriculum development committees and seminars;
- interacting with the wider school community;
- a weekly after-school seminar with school staff and liaison lecturers;
- completing a 6000 word report on a topic;
- computer conferencing with other participants;
- compiling a professional employment portfolio

(Standards Council of the Teaching Profession, 1995: 19)

Trainee teachers \( (n = 26) \) were placed in one of four local primary schools for two days per week during first and third term (46 days). Many trainee teachers spent much longer in schools, some maintaining regular contact throughout the year (February to October). Liaison lecturers, part-time appointments with teaching experience in schools and the initial teacher education course, visited trainee teachers and provided support and guidance.
The university provided computers, modems, printers and telephone connections in each school, installed the communications software (FirstClass), and provided training in its use for all participants. No conditions about frequency (minimum and maximum contacts) or purposes (contributions to conferences) were placed on the use of the network; actual usage anticipated to reflect the needs of participants in the program.

5. Research questions

The research focused on a number of questions related to audience, notation and reflection in a specific case.

5.1. Audience

- Did a public audience exist on the electronic network?
- Was this audience comprehensive? (teachers, trainee teachers and university tutors);
- Was ‘active’ participation (contributing messages) evident?

5.2. Notation

- Was the network used to record ideas and discussions about teaching?
- What was the content of messages on the network?

5.3. Reflection

- Was the network used to share information about curriculum and teaching?
- Did examples of collaboration between participants emerge?
- Were multiple perspectives about curriculum and teaching evident in messages?

6. Data collection

Data about the use of the electronic network were collected from (a) participant observation (the author was network Administrator); (b) software-generated statistics on logins to the network and message contributions; (c) questionnaires distributed to participants; (d) interviews with trainee teachers (n = 20); and (e) analysis of conference transcripts.

7. Network use by trainee teachers

Fig. 1 shows the extent and nature of usage by trainee teachers (April and October). Trainee teachers account for 85% (n = 1256) of logins to the network, 82% (n = 721) of private messages created, and 68% (n = 130) of messages placed in conferences. This chart reveals that
Trainee teachers used the network extensively for private messages but to only a limited extent for public conferencing.

Data from questionnaires revealed that the ‘school-based’ program was viewed positively. Trainee teachers \((n = 21)\) reported (Strongly Agree/Agree) that they enjoyed planning and teaching their individual project (81%) and that the ‘school-based’ program helped them to develop teaching skills (90%).

Few difficulties were experienced using the FirstClass communications software which was considered to be ‘easy’ (90%) and ‘fun’ (77%) to use. Only 14% thought they were at a ‘basic level’ using features of the software, the remaining 86% indicating that they were at ‘higher’ or ‘advanced’ levels.

These data reveal positive attitudes towards the ‘school-based’ program and the communications software. Strongly positive responses were also received on items about the perceived value of the network; electronic communication was considered to be very useful for ‘receiving information’ (91%), ‘social contacts’ (95%), ‘teaching projects’ (86%), ‘discussing educational issues’ (81%), ‘dealing with personal and professional problems’ (71%) and “developing a ‘sense of community’” amongst participants (81%).

These are interesting and useful findings; they indicate that there is scope to incorporate electronic networking in initial teacher education courses and that trainee teachers perceive that benefits may accrue from doing so. However, in data from conference messages and

![Fig. 1. Network use by trainee teachers.](image-url)
interviews, other ideas about electronic networking emerge, and these influence conclusions which might be drawn about the potential of the medium in initial teacher education.

7.1. Conference messages

Apart from ‘Staffroom’ (created by the Administrator), other conferences \((n=13)\) were determined by trainee teachers \((n=26)\) at on-campus meetings. Only three conferences—‘Staffroom’ (67 messages), ‘Course Comments’ (57 messages) and ‘Projects’ (36 messages)—had relatively high message counts. Other conferences set up to discuss curriculum issues were poorly supported (0–15 messages).

‘Staffroom’ was the first conference created (by the Administrator). A review of the messages in this conference revealed that trainee teachers used ‘Staffroom’ to notate factual information, as a noticeboard on which to distribute notices and publicise events. ‘Projects’ consisted mainly of project outlines \((n=22)\) submitted by trainee teachers. Only eight messages offered comments on specific projects proposed by trainee teachers. Hence, ‘Projects’ was also used as a noticeboard, rather than a forum in which ideas were discussed and procedures about completing projects were clarified. ‘Course Comments’, in which trainee teachers were able to use a special account called ‘Mary Smith’ to contribute messages anonymously, attracted many more messages \((n=57)\) which dealt, in the main, with immediate concerns related to the ‘school-based’ program. The content of messages in this conference, and the use of the anonymous account, are discussed in more detail later. While participation in conferences was limited, higher levels of participation in ‘Course Comments’ revealed that trainee teachers were, in certain circumstances, willing to use the network for discussion purposes. Data from questionnaires and interviews provided insights on factors influencing participation in conferences.

7.2. Factors influencing participation on the network

While concerns about features of the ‘school-based’ program (such as workload and assessment) impacted on participation on the network (Pearson, 1996), the focus here is on concerns directly related to the use of the electronic network as the medium for discussion purposes.

7.3. The public nature of communication

‘Negotiating’ a relationship with the electronic network and, in particular, the conferencing facility proved to be a particularly difficult task for many trainee teachers. They found that nothing in their teacher education course had prepared them to put forward ideas in the ‘public’ way required in conferencing. In previous years, they had been passive listeners rather than active contributors in university classes.

Looking back over the three years you could count on your fingers the number of times you actually had to get up in front of everybody and do something. And then you’re stuck on this thing where everything you do is in front of everyone else. So it’s a big change. [TT12]
It might also be anticipated that teaching practice in previous years may have developed confidence about public presentations. However, trainee teachers were unable to transfer the skills and confidence gained during face-to-face interaction (with children, as well as adults) to the electronic medium.

Teaching children isn’t as intimidating as presenting your own ideas to people your own age or older. Even though you might be quite confident in front of 30 or so kids, when it comes to actually participating in conversations relating to class work or whatever it’s just dramatically different. [TT13]

7.4. Envisaging the audience

One of the problems for trainee teachers thinking about contributions to conferences was the difficulty they had in envisaging the audience. In assignments in other subjects, trainee teachers had written what they perceived the lecturer wanted:

In most of our Uni life we’ve gotten to know the lecturers in the classes we’ve been in and you’ll tend to write what you think the lecturer wants from you. You know what particular lecturers look for. I don’t think you necessarily write the same way for all lecturers. [TT13]

However, on the network they were uncertain about how to compose messages which would be read by an audience which comprised other trainee teachers, classroom teachers and university staff.


The content of messages was not the only problem. Without previous experience of ‘network genre’, trainee teachers were uncertain about how to write.

I’ve got to write in a non-relaxed form for me when I’m on the network. I feel like I’ve got to write in a formal way and that puts me off. [TT3]

The difficulty of making decisions about writing ‘style’ is also reflected in the following passage from another trainee teacher.

You have to adjust to it. You can’t just write exactly what you mean when you’re typing it. You have to really explain yourself a lot. When you’re having a chat with someone they can fill in the gaps really easily. [TT5]

‘Time’ was another problem. In some cases, this referred to the competing demands of other components of the ‘school-based’ program, but in other cases the concern with ‘time’ related to ‘reflective writing’. One trainee teacher expressed this in the following way:
It takes me a long time to think about what I’m going to write and edit it. I edit and edit all the time to try and make the point that I want to make so that it’s not ambiguous. So, I’m constantly editing and that’s time consuming. And sometimes I’ve felt under pressure with time on the network and I’ve sent something and thought afterwards that I could have done better. [TT20]

7.5. Cues

Another difficulty for some trainee teachers was the loss of visual and verbal cues associated with face-to-face conversations when communication was mediated via an electronic network.

It’s hard typing something on the computer because, when you are talking to someone, you know with the tone what they’re meaning. If they’re being sarcastic you know, but on the computer you don’t. [TT1]

Another trainee teacher made the following comments:

If you’re there you can read what a person’s body language says and you can see if they’re understanding what you mean, and you can communicate more effectively face-to-face or over the telephone because you can listen to what they’re saying in response to what you’re saying and you can modify your message so that they understand what you mean. [TT16]

In the ‘school-based’ program, the electronic network had been introduced to facilitate communication between course participants. But for trainee teachers, computer-mediated communication was about writing, since active participation in computer conferencing involved composing written messages. Their fundamental concern was the written nature of communication, evident in the language they used in interviews when talking about the network; sending messages was described as ‘writing on the computer’; messages were referred to as ‘letters’; and replies involved ‘writing back’. Only a few trainee teachers talked about the network as a place to share ideas, to become familiar with other points of view or to justify their own ideas about concepts and issues to do with teaching.

7.6. Criticism

Since computer conferencing was about writing, rather than communication, it is not surprising that the major concern of trainee teachers—mentioned in almost every interview—was fear of criticism from others about what they had written. An incident early in the year reinforced their worst fears.

It was a response to one brief project outline—‘about atypical children and self esteem’—which heightened anxiety about the vulnerability of written outlines. This response, by a university staff member, was designed to foster discussion and provide helpful information, but this was not the way it was perceived by the trainee teacher who had proposed the project. According to another university staff member:

[She came] tearing into my office after school one day saying, ‘Who is this?’, and she used a very short word for him. And then she gave me a half hour diatribe on why she thought he had no
right to have any opinion on what she did. And she was deeply offended. There was no idea of the contribution of a colleague or why he wrote it. It just offended her utterly. [US2]

The university staff member who inquired about the project on ‘atypical children’ made another contribution a few days later clarifying the meaning of ‘hypothesis’ and the way a hypothesis was framed. Again, the message was designed to assist trainee teachers to formulate their projects in schools, but the ‘academic’ language used was construed as intimidating. Not surprisingly, trainee teachers decided to avoid written contributions to conferences which could expose their own inadequacies. As one trainee teacher commented:

Better to remain silent and be thought a fool than to open your mouth and remove all doubt. [TT10]

Another incident later in the year reinforced trainee teachers’ concerns about the vulnerability of written communication. It was described in the following terms by one trainee teacher who was directly involved.

We were discussing whether computers stay in schools [in Term 4]. It wasn’t even a touchy subject as far as I was concerned. I wrote on the computer. I used her name and that was why I was criticised. I probably shouldn’t have done but her name was on her comment so I didn’t think she would worry. I said: ‘After the last meeting you weren’t at the situation has been resolved’. I thought it was quite an innocent comment and I got heaps of mail. I was very hurt by it all. [TT4]

This trainee teacher felt obliged to offer a public apology to the trainee teacher she had named. Previously amongst the more frequent contributors to conferences, this incident curbed her enthusiasm for electronic communication.

I thought: I’m going to write as much if not more just to really annoy them, those people who wrote back to me. But, I don’t know, the will-power went and I couldn’t be bothered writing. I haven’t contributed to any other conferences. [TT4]

The potential ‘danger’ in incidents like these were all too evident to other trainee teachers who might have contemplated contributions to conferences. Trainee teachers in this ‘school-based’ program seemed particularly vulnerable to criticism from peers. But they were also reluctant to record the views they currently held, which they believed were not fully formed, in case they later felt they needed to change these views when working in a particular school.

I suppose now we are becoming teachers, or we are teachers, we have to put things out for other colleagues to read, but we are not used to that—publications of our own work and other colleagues reading them and giving us feedback which might be a criticism. I guess most of us are scared about that at the moment. [TT6]

These comments by trainee teachers reveal some of the problems they experienced negotiating the conferencing facility on the network. The fear of criticism about what they
wrote was a particular problem which most failed to resolve. Hence, public messages addressed to conferences usually took the form of notices about professional development courses or social activities, ‘safe’ because these messages simply conveyed information and nothing about their own views which might be open to ‘criticism’.

7.7. Participating anonymously—the ‘Mary Smith’ account

‘Course Comments’ (often called the ‘Mary Smith conference’) was the most successful of the conferences on the electronic network—it created a great deal of interest among trainee teachers, attracting the second highest number of messages ($n = 57$) of all conferences. The ‘Mary Smith’ account is also perceived to have encouraged a high level of interaction (comments on issues raised in other messages) amongst participants which was not evident in other conferences but, since this account was anonymous, the number of participants cannot be quantified.

The ‘Course Comments’ conference, and the ‘Mary Smith’ account, enabled many trainee teachers to handle problems associated with using their own accounts. As anonymous participants, they were free from criticism and it didn’t matter what, and how, they wrote. One trainee teacher, who had made no comments to conferences except ‘Course Comments’ using the anonymous account, considered that:

It wasn’t personalised. No-one knew who it was so they couldn’t attach a name to it. So the criticism wasn’t taken to heart. [TT12]

Another trainee teacher thought the anonymous account was a good idea because:

You don’t feel so bad about coming back as Mary Smith and giving feedback. It’s not friends or people you know. You don’t want to step on peoples’ toes. You can actually give feedback whether its critical or whether its positive. [TT18]

For another trainee teacher, using ‘Mary Smith’ was a way to contribute ideas with ‘no strings attached’:

I wrote it under Mary Smith because I couldn’t be bothered getting back all the garbage that would come if I wrote it under my own name. I’d be getting personal comments back to my [mail]box and on to me personally and I didn’t want that. [TT14]

The use of an anonymous account was an interesting innovation which has been perceived to have increased participation in one conference. But it might also be argued that the capability to make anonymous contributions enabled trainee teachers to avoid, rather than address, the problems they had with the network and probably did little to help them resolve the concerns they had about public comments and the ‘fear of criticism’ about what they wrote on the network.

8. Concluding comments

The data collected in this case study revealed only minimal use of the network in relation to potential opportunities (identified earlier in this article). In this initial teacher education course,
a public audience did not develop, ideas and practices were not recorded, and reflective behaviours were not evident. For a variety of reasons, the notion of recording and discussing educational concepts and issues via written messages on an electronic network was foreign and disconcerting; the ‘risks’ outweighed the ‘benefits’, and the potential of new technology was not explored. While various factors contributed to outcomes in this specific case, the experience indicated that three major aspects need to be addressed before a ‘virtual faculty’ is likely to find a place in initial teacher education courses.

First, the nature of partnership relationships need to be considered. The questions: (a) ‘What type of teacher education program would offer opportunities to support collaboration?’ and (b) ‘How could this be facilitated using electronic networking?’—need to be discussed and clarified by participants. Despite the emphasis in the ‘school-based’ program on ‘collegiate relationships’, ‘negotiated curriculum’ and ‘research about practice’, participants in this program focused on immediate concerns (‘delivering the curriculum’) at particular school sites, rather than problem-centered objectives relating to research and evaluation which involved a wider audience from several schools. As Campbell, Jamieson, Olson & Mappin (1995: 302) have noted, the nature of ‘partnership arrangements and collaborative agreements between universities and school systems’ are fundamental to using new technology:

In some form the universities, the schools, and the student teachers must form an alliance that is value-added for all three parties. These alliances must be formed to solve commonly held problems and exploit mutual opportunities.

When alliances are based on mutual self-interests, the ‘efficiency’ of new communications technologies can begin to emerge; collaborative interaction between participants at different sites becomes possible, reflective practice is encouraged, and a rich database of ideas can develop for future reference and analysis.

Second, special attention needs to be given to the problems of notation which may exist for trainee teachers and classroom teachers. A tendency to ‘privatism’—‘a reluctance to disclose and discuss the nature of educational work’ (McTaggart, 1989: 346)—has been extensively documented in the educational research literature (Feiman-Nemser & Floden, 1986; Lanier & Little, 1986; Lortie, 1975), and similar tendencies were evident in this case study. Trainee teachers and classroom teachers were reluctant to contribute messages to conferences for ‘fear of criticism’ their comments might attract, and the judgements which might be made about their professional competence on the basis of what they wrote. As Perkins & Newman (1995): 617–8) note, a problem with electronic communication is that respect can be won, or lost, on the basis of written exchanges:

Among strangers in electronic discussion, people are represented only by their communicative competence. Claude Baltz, quoted by Freeman (1989), puts it very well: ‘instead of identity having that status of an initial given (with which the communication usually begins), it becomes a stake, a product of the communication’. Status is gained or lost directly from message exchanges, mediated by [written] language.
For classroom teachers and trainee teachers with doubts about their own written abilities, sending messages to conferences presented obvious problems. The difficulties of presenting craft knowledge about teaching in written messages was recognised, and fears were held that written acumen would be the basis on which professional competence would be judged. Since there were no requirements to contribute messages, the perceived ‘risks’ involved in doing so were best avoided.

Third, the teacher education curriculum, and the expectations held about the activities trainee teachers complete as part of the course need to be addressed. While this may occur as collaborative arrangements between universities and schools are developed, specific attention needs to be directed to the content and pedagogy of courses. In relation to content, present preoccupations with technical skills (knowledge of curriculum guidelines, lesson planning) about ‘orchestrating’ classroom teaching episodes need to be supplemented with investigations of competing views of teaching and learning and the bases on which these are grounded. Activities in schools need to be based on inquiry (investigation and analysis) of classroom events, rather than repeated practice in ‘delivering the curriculum’ to pupils. In terms of pedagogy, present practices based on passive roles for trainee teachers (lectures, and ‘pseudo-discussions’ in ‘tutorials’) need to be replaced by other activities (investigations, critical reading, debates, responses to guest lecturers) in which trainee teachers play more active roles in examining knowledge about teaching. Skills, other than those related to the management of classrooms, need to be developed. These include written presentation skills, as well as specific research skills (observation, data analysis) which might be needed in investigations of classroom events. If attention is not given to content, pedagogy and skills in the initial teacher education curriculum, the ‘reflective practices’ which can be facilitated by electronic networking are unlikely to occur.

Hence, in the context of initial teacher education, the nature of collaborative partnerships between schools and universities, the problems surrounding the notation of classroom events for classroom teachers and trainee teachers, and the curriculum and pedagogy of the course as a whole require clarification and development before the advantages of electronic networking can be realised. Where these aspects have not received attention, it is likely that an electronic network would remain under-utilised, as occurred in the specific network investigated in this case study.

References


