ELECTRONIC COMMUNICATIONS IN INITIAL TEACHER EDUCATION

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In February 1994 the Open University launched a part-time distance taught PGCE course for prospective primary and secondary teachers. In order to support the development of IT competence every student was loaned an Apple Macintosh complete with a printer, Clarisworks2 and a modem. In February 1995 they were sent software for the computer conferencing system, FirstClass This paper describes the way in which students have made use of this medium to increase the opportunity for communication with other students on the course, tutors and the course team. The focus in particular is on the experience of secondary mathematics students.

Introduction

FirstClass is an example of an easy to use computer conferencing system. It works very much like the letters page in a newspaper, in that one or more people can respond to an item posted in a conference over a period time. FirstClass offers students a range of conferences arranged in folders in which discussions can take place between a number of participants. These conferences can be limited to one topic or to a theme. Because of its asynchronous nature, computer conferencing is particularly useful for increasing interaction and communication with distance education students.

FirstClass was introduced to the first cohort students a year after they started their 18 month course because of problems in finding a system that was easy to use and made use of the Apple windows environment. The second cohort of students are to start using FirstClass in June. It is not being used for teaching directly but for increasing student contact with one another and OU staff.

Students are sent a diskette and an accompanying handbook with instructions on how to log-in and describing the protocols of using an electronic communication system. When they log-in for the first time students see the desktop illustrated in figure 1. There is a mailbox for private mail, a bulletin board on which important notices are posted on various subject or regional based notice boards, and a meetings room folder. The metaphor of rooms is followed throughout the subconferences. There is a main lobby in which general 'coffee time' conversations can take place. From here students can access regional areas where students from each of 12 OU regions can discuss various aspects of the course with tutors, the staff tutor and fellow students from that region. Each regional conference can only be accessed by students assigned to a particular region.

Tutors are encouraged to initiate discussion prior to day--schools or following on from day-schools so that students can continue the debates and discussion on themes from each of the 4 day schools. Similarly each tutor has their own seminar room where he or she can chat privately with their own group of 15 or so students either on day school or tutorial themes or on other matters that affect their students. Students are encouraged to initiate topics for discussion in both these forums.
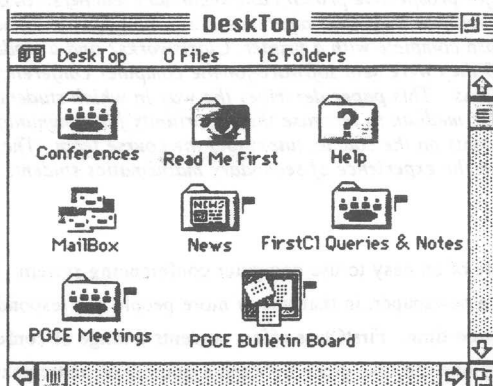

figure 1 student desktop

In order to keep the discussion areas free of technical queries about the use and operation of the system, there is a conference assigned specifically for problems of this nature, *FirstClass queries and notes.*

Since students are in mixed subject tutor groups, either primary or secondary, they will have limited face to face access with other students following the same course line. For example in any secondary tutor group there might be students from each of the six subject lines, and perhaps only one or two of these will be following the same line. To increase access to other students, there are subject bases for each line and also a primary base. In addition to these conference areas there is a staff room conference where tutors and the OU course team can share ideas and pass on information.

The Maths Bulletin Board
Each subject area has its own bulletin board where only the member of the course team with responsibility for that subject area can post messages. However everyone is invited to send contributions to that person if they think it might be relevant. Details of new publications, newspaper articles, television or radio programmes, conferences and talks are posted here. By allowing only one person to post messages, the board does not become unwieldy and students can browse through it easily.

The Maths Lab

This conference is open to all students but is mainly used by secondary mathematics students and primary students. Topics for discussion have been raised mainly by students. I started the conference by asking for students views on how we might define the basics in mathematics in the 21st century. This was followed by a discussion on Ma1 initiated by a tutor.

▤		**MATHS LAB**			
ᵇ᷂ Conference	69 Files	2 Folders			
	📇		📇		
	Teaching ideas		School Experience 3		
✉	Harvey Blair	2K Spreadsheets		7/5/95	18:45
✉	Richard Simpson	1K Re(5): Spreadsheets		6/5/95	17:08
✉	Judith Steiner	1K Re(4): Spreadsheets		30/4/95	19:34
✉	Richard Simpson	1K Re(3): Spreadsheets		28/4/95	18:53
✉	Michelle Selinger	1K Re: New Zealand		28/4/95	3:19
✉	Shelley Goodman	1K New Zealand		27/4/95	21:07

Students soon started to ask for support for teaching topics. For example, Dorothy, a primary student asked for ideas about teaching area to a composite year 6/7 class. She received ideas from a primary non-specialist. a secondary teacher and another primary student. This illustrated the positive nature of such a medium for encouraging cross-phase integration.

Another set of messages focused on a widely used published mathematics scheme. Here students discussed the different approaches taken by their schools and voiced their opinions on the merits and disadvantages of the way it was used, whilst also suggesting how they might adapt it themselves in the future. The spacing of the responses indicated that students were not simply reacting to an item. The asynchronous nature of the medium allowed for thought and consideration as participants did not have to respond in real time. As Kaye (1989) points out, 'the conference transcript becomes a valuable record which can be consulted at leisure, or edited'(p.5).

There have also been discussions on the availability of software, the use of calculators and spreadsheets and discussions that indicate the emphasis the course puts on the use of IT for both teachers and pupils. Over time the discussion has become more sophisticated and the length of contributions has also increased. Students are now describing their school experiences in detail and are willing to share their problems about issues of classroom management and are trying to analyse what it is they think they are failing to do. The reports are about specific incidents rather than general descriptions of malaise. The support they offer each other has been described as a strength of this mode of communication as they now have

written evidence from others sharing similar experiences. Although contributions in this area have only totalled 8, to date, a large number of other students have read these items and are reported to feel less isolated by the realisation they are not alone in their negative as well as positive teaching experiences. Many items have also been about delights, and include vivid descriptions of lessons that went well. Interestingly there has been little exchange of worksheets in the maths lab, a feature which has been quite dominant in both the 'science lab' and the 'primary base'.

Discussion

The experience of OU students matches that of other similar ventures (Beals, 1992; Merseth 1993; Schrum, 1992; Watts and Castle 1992). Computer conferencing opens up classrooms in a novel way. Teachers no longer need to be isolated, unable to find peers with common interests to support their professional development. Through electronic communication they have access to others which does not depend on geographical or temporal factors. The topics for discussion in the OU course match those found by Merseth (1993) which were, in rank order of perceived effectiveness: receive moral support, develop a broader perspective on teaching, keep in touch with others, reflect on a philosophy of education, share teaching techniques, improve classroom management, obtain help with lesson and curricular planning. Through this medium students can debunk and confirm the conventional wisdom of teaching as they develop and explore the craft knowledge of teachers.

In terms of course development, it is the intention to monitor the issues that students refer to most often. This will help determine any re-structuring and re-focusing of the course. The free nature of the medium in which students are allowed to discuss any issues that arise for them will contribute to an increased understanding of beginning teachers needs and there will be a permanent written record of their evolving concerns.

References

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