The Adult Numeracy and Mathematics On-Line (ANAMOL) project investigated the use of online technology as a medium for professional discussion, networking, and collaboration among a small group of isolated adult numeracy practitioners in Australia. After investigation of several methods of online communication, freeware was selected because, in most educational organizations, the use of online systems is complicated by conditions and limitations related to official enrollment or registration of all users. Using freeware packages had particular advantages, such as no cost, ease of use, and independence from outside organizations and people. The two packages selected were "People-Link" and "Discus"; this software was supplemented with electronic and postal mail. The project involved an induction session, followed by a series of discussions focused on weekly readings related to numeracy teaching and assessment issues. After a few weeks, most of the participants were fascinated with this new form of communication and gained confidence in its use. Advantages of this form of communication included the scope of the discussion, the ability to distribute it to all participants, and the ability to post messages whenever one wanted, rather than waiting for a gap in the dialog. Project outcomes included creation of a bank of adult numeracy teaching and learning activities made available online, reduction in isolation among practitioners, and increase in ability to use technology. Obstacles were mostly related to technological and access problems. (Contains 10 references.) (KC)
ANAMOL: A Creative Experience
Using Communications Technology
ANAMOL: A creative experience using communications technology

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Working as an adult educator can be an isolating experience. Working in remote areas of rural Australia is even more so, and being the only numeracy teacher can be much worse. The Adult Numeracy And Mathematics On- Line (ANAMOL) project was a recent action research project funded by ANTA as an 'Innovative National Project'. The project investigated the use of on-line technology as a medium for professional discussion, networking and collaboration amongst a small group of isolated adult numeracy practitioners.

Background
Research on Victorian adult numeracy conducted two years ago (Marr 1997), revealed that networking and further professional development are amongst teachers greatest needs. Owing to their small numbers in any given location, adult numeracy teachers had fewer opportunities than other teachers for professional contact with colleagues who share their interests. A National Numeracy Forum, prior to the 1997 ACAL conference, indicated that many adult numeracy teachers were enthusiastic about forming a communication network across Australia with a practical teaching oriented focus.

Having benefited from collaborative efforts with colleagues in better economic times, I was also feeling this sense of isolation. In proposing this project I, Betty Johnston and Dave Tout (also geographically distanced from each other), wished to undertake action research to investigate whether a cohesive and collaborative spirit could be developed and maintained within a closed group of eight to ten geographically isolated teachers. At the same time we wanted to attempt a collaborative compilation of a web based resource: namely a collection of adult numeracy teaching activities and assessment tasks. We hoped that both aspects of the project would enhance professional development and networking, both for ourselves, and ultimately the wider community of adult numeracy teachers across Australia.

Participating teachers were found through notices in ALBE publications around Australia. Criteria related to geographic isolation, current teaching commitments, and demonstrated interest in professional development were used to make a final selection from initial applicants.

Continued on page 2...
Choosing and using the software

We investigated a range of methods of on-line communication. Our requirements included the capacity for 'synchronous' discussion - all participants online at the same time, as well as 'asynchronous' communication - conferences to which participants contribute in their own time. In institutions which had not yet decided on an on-line communication system, it would be necessary to go through another organisation or use 'freeware' which could be downloaded through the Internet.

After investigation we decided in favour of freeware, because in most educational organisations the use of on-line systems is complicated by conditions and limitations related to official enrolment or registration of all users. Using freeware packages had particular advantages: the no cost option meant that the experiment would be more easily replicable for others in the future; the packages found were very easy to use compared to some of the more elaborate programs available at cost; and freeware programs provided the maximum independence from outside organisations and people.

Two packages were selected. These were: 'PeopleLink', a program which is easily downloaded onto personal computers for the Synchronous (real-time) 'chats' or 'conferences' (from http://plnk.peoplelink.com/plnk/peoplelink/); and 'Discus', a program which was downloaded from the Internet onto a local server so that participants could access it using their web-browser for the asynchronous (threaded discussions). (Software available from http://www.chem.hope.edu/discus/).

These communication technologies were supplemented with e-mail communication for messages, reminders and agendas, and normal 'snail' mail for sending discussion papers and activity drafts.

Our experiences

Although work in our various institutions demands basic mastery of some computer software, none of us had any experience with on-line communication technology beyond e-mail prior to the project. This meant a great deal of new learning for all involved. At first we relied heavily on an ARIS staff member who was a few steps ahead in investigating the procedures. For me in particular, and I think most of the other participants, having to follow the manufacturer's instructions for downloading the software on to our machines was a proposition that provoked a cold sweat. This anxiety element was overcome by the writing of 'user friendly' instructions for downloading and using the software. These were trialed and re-written several times to ensure they were absolutely clear before sending them out to participants. They were then distributed, along with a phone number and welcoming message of support explaining the willingness of the support person to talk participants through the process. This partnership, or 'hand-holding', made a tremendous difference to all of our confidence levels.

The plan for the first seven weeks involved an induction session, followed by a series of discussions focused on weekly readings related to numeracy teaching and assessment issues. These were posted out prior to the commencement of the chats. It is a good idea to also send photographs and brief biographies of participants in order to provide multiple ways of 'knowing' each other. However, this process can take a long time and many reminders were required to get this information collated and sent prior to the project commencement. The first 'induction' session was designed to allow participants to become familiar with the 'chat' technology whilst getting to know each other. Most of us had not met prior to the project, so it was an opportunity for introducing ourselves, describing our teaching environments and students, and sharing areas of interest within numeracy teaching.

As project convener I facilitated this and subsequent discussions. I began the task with a trepidation matched, I discovered, by the initial nervousness of the other participants. At the end of the first session I canvassed feelings about this new form of communication. Responses ranged from 'Loved it!' to 'exhausted, frazzled, fearful of being left alone with this machine' and some humorous observations from Tropical North Queensland participants: 'One wit here said it looked like a first driving lesson - lots of kangaroo hops to start with, but still on the road.'

However, after a few weeks most of us were fascinated with this new form of communication and gained confidence in its use. We were excited at the ability to 'speak' in real time to others all around Australia. The ability to post messages into the chat whenever we were ready, rather than waiting for a gap in the dialogue, freed us from some of the stresses involved in tele-conferencing, we became more relaxed at following the sometimes tangled threads of conversation and were even able to share jokes and humorous diversions.

Another advantage of this form of communications was the scope it provided to save the text of the discussion and distribute it to all participants, even those who were unable to be there at the time. This was especially beneficial to those who had missed a meeting through technological or other problems. For example one potential participant was kept informed of the process whilst she solved an ongoing problem of access to the real time discussions, she was able to fully join the group at a later stage. Tracking through the transcripts later meant that none of our 'gems' were lost. Good ideas and suggestions could be picked up and developed in subsequent sessions.
In the following weeks participants read and discussed on-line, a selection of readings pertaining to adult numeracy teaching and assessment. After all participants were familiar with the real time (synchronous) chat, the second communications tool, the threaded discussion was introduced. This alternative form of communication could be used at times convenient to the participants, and hopefully allow for in depth exploration of topics.

During the chats we discussed the weekly readings and participants decided on areas of common interest within adult numeracy to discuss in subsequent sessions. We shared favourite activities and suggested new possibilities. From these we selected many of the ideas to be written up in a form that would be communicable to other teachers. The activities created were then trialed with adult students in participants’ and colleagues’ classes and modified from feedback received. Trial participants also suggested possible modifications and extensions which were then added to the final product.

Successful Outcomes

The project has achieved a number of successful outcomes. A bank of adult numeracy teaching and learning activities was collected and made available on-line for other adult numeracy teachers worldwide. The address:

The site contains not only the activities produced by the project’s participating teachers, but edited snippets of the discussion as well. All of the activities can be printed from the screen, complete with accompanying worksheets, so it should be a very useful resource - and its free! In addition to that very tangible outcome, the project achieved several less obvious successes which would be applicable to any group of geographically isolated teachers who share a common interest.

Isolated teachers/trainers were able to talk to each other about their teaching. The group exchanged ideas and opinions on teaching experiences, popular teaching activities, and offered impressions about the suitability of various activities for different student groups. Participants commented that the chat sessions relieved their sense of isolation from professional peers. It was in many respects a confirming experience which validated and extended their current good practice and raised engaging questions for future consideration. Most of the participants wanted to continue the regular discussions at the end of the project. New and exciting ideas were generated through this ongoing interaction. For example, the concept of tendering or 'doing quotes' grew and was developed as a useful theme to encompass the numeracy needs of a diverse range of students.

A group of women became more technology literate. Although not intentional, the groups of participants, apart from one of the facilitators, were all female. Over 50% were in the 45 - 55 age bracket with limited prior experience using computers. We found that through participation in the project most of us gained a variety of increased skills and a greater sense of confidence regarding future use of computer technology. One of the participants had never used computers at all before and shifted from phobia to excitement over the space of the project, so much so that she has now bought her own computer and established an Internet account. (We did however find out that people with absolutely no experience using a keyboard are at rather a disadvantage in this medium which depends on ability to type messages, even though accuracy is not required.) Another participant has now committed to a variety of on-line undertakings from her own TAFE institute.

There was a sense of community established in the group. After a very short time the participants began to be aware of each others’ situations in distant locations and introduced an element of social/personal concern and interest that went beyond the mathematics. An unexpected element of this interaction was the appreciation of the opportunity to be in touch with wider issues in the field, such as employment situations and numeracy policy developments.

Challenges

In spite of the successful outcomes achieved by the project, several obstacles were also encountered. The majority of these were related to technological problems, some purely technical and some arising at the interface between the technology and the policy makers or technical staff. Many TAFE colleges in Australia proved unwilling to provide access to the real time conversation program for their staff. This was not because of a lack of capacity in the technology. Rather it seemed to be caused by policy decisions taken by institute personnel to deny access through the institutions’ security systems. Reasons given were unclear to the teachers involved, and interestingly, were not universally seen as a problem. It seemed easier for several of the teachers to use the system from their homes or small community bases, than from the TAFE campuses. However, most large institutions are beginning to establish their own on-line arrangements and access to their customised communication system should be less of a problem for the future.

Anyone wishing to be involved in a possible extension of this concept or a new network to be formed contact me on 03 9925 7822
email: b.marr@rmit.edu.au

I can also supply further information about accessing these systems for your own project or a copy of the complete project report.
The ARIS Resources Bulletin is the quarterly journal of the Adult Education Resource and Information Service (ARIS). Resources are reviewed by language and literacy professionals. If you would like to be part of the review team please phone Robyn Hodge at Language Australia on (03) 9926 4779.

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