

THE BEST OF BOTH WORLDS

Christine E. Frank*

In education, computer conferencing has most commonly been employed to facilitate distance learning. Indeed, the contact among teacher and students that computer conferencing provides can greatly enhance distance learning. However, on-campus courses that blend face-to-face and online interaction retain the advantages of face-to-face class meetings while making use of a rich new learning environment.

For educators who are interested in employing learner-centred principles, computer conferencing adds a valuable dimension. In the early research on computer conferencing in education, Harasim (1989) found that conferencing exchanges were student-centred, involving dynamic and extensive sharing of information, ideas, and opinions among learners. Davie and Wells (1991) later described computer conferencing as a medium that empowers learners by allowing them to take a more active role in the social construction of meaning. Davie and Wells pointed out that a computer conference allows all students an equal opportunity to contribute, unlike face-to-face classes where time-constrained synchronous interaction is often dominated by the teacher and a few students. Other advantages that have been described are time for reflection during class discussion and the ability to compose thoughtful written contributions, both leading to the expression of deeper thinking (Andrusyszyn, 1996; Berge, 1997). Computer conferencing, then, provides new avenues for learners to engage in active learning.

An additional benefit of blended courses is that they allow both teachers and students to gain electronic communication skills gradually. When a course is moved partially into a computer conference, everyone has the chance to gain technical skills and comfort in the new environment while still having regular face-to-face contact.

Blended courses provide fundamental practical advantages to institutions where there is pressure on classroom space. Furthermore, they give students the advantage of more flexibility. As more and more students have Internet access at home, they can "attend" the online hours of the class at any time and may even save a trip to school.

In 1995, I began to make use of conferencing in my courses at a community college. I required students in my Senior Research Seminar to post their research proposals and progress reports in the class conference. I also invited them to discuss research problems online with one of our librarians, who had graciously agreed to join our conference. My chief initial goals were to extend students' access to assistance, to allow them to experience the high quality of writing of some of their classmates, and to introduce them to online research. At the time, I retained the three face-to-face hours per week allotted to the class.

* Georgian College of Applied Arts and Technology, Barrie, ON, Canada

Encouraged by my first experience and armed with the research into educational uses of conferencing, in 1996 I created a new course called Critical Thinking in the Information Age. This course was arranged as a two-hour face-to-face class and a one-hour online class to continue discussions begun in class. Students began the discussions by selecting and presenting articles on controversial subjects.

To attend the online hour, students entered the conference when it was convenient, read the discussion contributions to date, and then composed messages to the group. Thirty per cent of the course evaluation was based on their online participation. In addition to my earlier goals, a new main goal was to ensure that students were examining issues from multiple perspectives and synthesizing and expressing informed points of view. According to Davie & Wells (1991), this goal, also associated with critical thinking, is an important part of student empowerment and is achieved in computer conferencing through a sense of mastery and community.

An overlapping goal was to ensure that students were employing the three types of knowledge that have been established in the cognitive research literature (Phye, 1997):

Declarative knowledge: facts, concepts and vocabulary stored in memory. A student must identify information that is important and then use strategies to hold and fit the information into previous knowledge structures.

Procedural knowledge: the intentional use of cognitive tools such as analysis, application, synthesis, evaluation.

Strategic knowledge: knowing how and when to use declarative and procedural knowledge to solve problems, think critically, and approach novel tasks. (p. 54)

When students are required to engage in ongoing academic discussion in a computer conference, they are engaged regularly in the processes outlined by cognitive research. They must identify information or ideas that are important, analyze and evaluate issues and other students' comments, make choices about when and to whom to reply, and synthesize responses that advance the discussion.

Through the hundreds of messages that students sent to our conference, I found that the sense of community and the momentum of discussion established in the face-to-face class carried over and deepened in the online conference. Students' response to this blended method in the first iteration was overwhelmingly positive, and at the end of the semester, they produced a booklet of their favorite contributions. An indication of how well the learning goals were reached can be seen in comments made by the students at the end of the third iteration:

It was really neat to be able to voice our thoughts and opinions online. I, for one, find my words come out much more clearly when I write them down. Also, in-class discussions can be hard for some people. I found it really interesting to read everyone else's thoughts. I've known most of my classmates since September, but through the use of this forum, I've learned a lot about them. There are some pretty amazing people around here.

I am one of those people that likes to take in what everyone else has said in class, think about it my own time, and then share my opinions. That is why I found the online stuff to be very beneficial. It gave me time to think and there was no pressure to come up with a quick reply.

As I read along, the argument unfolds and I am able to see the level of critical thinking I am at, that if this were not online, I would not be able to. I often say in my head "this could be better stated this way or that way" or "that argument leads to this thought."

I preferred to listen in class because I didn't usually have an opinion until I had heard what everyone else had to say. The most important thing I probably learned is that everyone has a story to tell and you never know what someone has gone through or experienced until they choose to share it with you.

Getting my hands on the computer has been a great low-stress way to become more aware and comfortable with them. I also feel that the choice of discussion medium is useful in eliminating unnecessary talk and focusing in on the issues. I found that through reading responses and opinions this way, people were forced to be more precise and that made for some very strong points of view.

The students' comments reveal their appreciation of time to reflect, as well as the deeper sense of community that I had detected. Students who tended to be quiet in class were empowered to participate more actively. Moreover, the comments indicate that students were meeting the main course goals: examining issues from multiple perspectives, synthesizing and expressing points of view, and employing the three types of knowledge outlined in cognitive literature.

References

- Andrusyszyn, M. A. (1996). *Facilitating reflection in computer-mediated learning environments*. (Doctoral dissertation, Ontario Institute for Studies in Education, University of Toronto, 1996).
- Berge, Z. L. (1997). Computer conferencing and the on-line classroom. *International Journal of Educational Telecommunications*, 3(1), 3-21.
- Davie, L. & Wells, R. (1991). Empowering the learner through computer mediated communication. *The American Journal of Distance Education*, 5(1), 15-23.
- Harasim, L. (1989). On-line education: A new domain. In R. Mason and A. Kaye (Eds), *Mindweave: Communications, Computers, and Distance Education* (pp. 50-62). Oxford: Pergamon Press.
- Phye, G. D. (1997). *Handbook of academic learning*. San Diego: Academic Press.