

(ONLINE) ACTIVE LEARNING TECHNIQUES

1. *The notice board.* Conferences may have the same function as announcements in face-to-face classes. The instructor can, for example, introduce office hours, class readings, assignment deadlines, material on reserve in the library, and examination advice. The electronic notice board is equally accessible to those who attended class and those who missed. It is permanently displayed and automatically marked with the date etc. Since it is interactive, it also allows for clarification of announcements. For administrative details, it offers advantages over announcements or hand-outs in face-to-face classes, as well as over students' telephone calls and visits to the professor's office.

2. *The public tutorial.* It is likely that if one student has a problem understanding or interpreting, other students will share the problem. So, in order to benefit both inquirer and readers, conferences have been used for questions and answers that can clarify issues and elaborate on material presented in class. When issues are raised online, tutors are more inclined to produce a detailed discussion knowing that it would not be necessary to repeat the explanation for subsequent inquiries from other students.

3. *The individual project.* An online conversation between two participants can be useful in situations such as rewriting a term paper, guiding an independent reading course, or writing a thesis proposal. Online supervision may be slower than direct spoken consultation. On the other hand, it may be more thoughtful and more productive use of contact time.

4. *Free flow discussion.* A free flow discussion conference may be used to continue and supplement interaction in a face-to-face class. Participants can pursue ideas between classes after they have read further and reflected on the issues. For example, free flow discussion conferences have been used successfully for informal reflection on a futures theme. The discussion does not need to be inconclusive or aimless since any participant can focus on a series of comments and test group consensus.

5. *The structured seminar.* In a structured seminar, sub-topics have been matched to units of course material. This is particularly useful for distance learners and individuals who have incoherent course progress.

6. *Peer counselling.* Conferences for peer counselling are primarily for student-to-student interaction. These conferences provide a medium for mutual support and advice on academic issues such as exam preparation, administrative aspects concerning registration procedures and fees, existential crises related to work with thesis proposals, and how to survive as a part-time student. Although peer counselling take place in conferences with other purposes, their function is important enough to merit a separate conference or a separate topic in a course conference.

7. *Collective database.* Collective databases; such as annotated bibliographies, listings of journals, directories of sources for scholarships, and calendars of events; can be established within computer conferencing systems. Conferencing systems provides a means for soliciting and collecting contributions from individuals.

8. *Group product.* Conference systems can facilitate group work such as case study preparation, project development, and team presentation. Conferences can further provide forums in which classes can analyze problems, coordinate individual work, prepare group papers, and review and revise each other's work.

9. *Community decision making.* A conference open for all students, faculty, and staff can address management of educational resources, procedures for comprehensive exams and thesis defenses, curriculum changes, and preferences among nominees for visiting faculty. Especially at the graduate level, shared decision-making is beneficial for building true academic communities.

10. *Inter-community networking.* Linkages between similar academic groups at different universities have been attempted to promote common research and scholarly interests. This seems to work best among people with previously established relations through on-site conferences, shared study interests, or exchange of papers.

Based on her work with CMC courses at the Ontario Institute for the Studies in Education and at the Simon Fraser University, Harasim (1991 and 1992) offers eleven learning techniques that have been found effective online. Her presentation of these techniques are paraphrased in the following:

1. *Seminars.* In online seminars, students prepare by reading the assigned material before they log on to discuss pivotal issues with peers and instructors in an appropriate conference.

2. *Small group discussions.* In small group discussions, three to ten users discuss a particular topic, usually guided by an instructor or a group leader. The discussion often follows a seminar discussion or a plenary discussion. It may also complement a parallel face-to-face or online activity.

3. *Learning partnerships and dyads.* In learning partnerships and dyads, learners are paired for mutual support and group work. These techniques can serve as ice-breakers in early phases of online classes and they are also useful for joint writing projects.

4. *Small working groups.* Small working groups can facilitate collaborative work. Student groups can, for example, solve problems, undertake research projects, and write reports. Effective groups, though, require clearly defined tasks, roles, and timeliness.

5. *Team presentations/moderating by the learners.* Online students can be asked to moderate class discussions and to present papers in a computer conference. Students may, for example, work in small groups to present, moderate, critique, and synthesize a discussion on a class topic.

6. *Simulations or role plays.* Simulations and role plays allow students to apply and test theoretical knowledge in a simulated environment. Examples of successful role plays in online environments include a "management lab", an "evaluation manor", and "Sam's Cafe". In the management lab, students take on various roles in managing a hypothetical corporation. In the evaluation manor, learners assume the perspectives of various evaluators to debate evaluation

procedures and approaches. Finally, in Sam's Cafe, the participants adopt the personae of characters in a bar to explore different philosophical perspectives and positions.

7. *Debating teams.* In debating teams, learners have the opportunity to improve their analytical and communication skills by formulating ideas, defending positions, and critiquing counter positions.

8. *Peer learning groups.* In peer learning groups, learners assist one another with writing assignments, problem solving, etc. Students may, for example, collaborate online to improve their writing skills.

9. *Informal socializing: the online cafe.* Since social communication is an essential component of educational activity, online educational environments should provide opportunities for informal discourse. An online cafe can contribute to a sense of community among the users, forging a social bond that may offer motivational and cognitive benefits.

10. *Mutual assist for help.* Valuable online support, based on mutual assistance, can be organized in an online conference where students can ask one another for help. Such a conference may be especially useful with regard to technical problems and system support.

11. *Access to additional educational resources.* Additional online resources for educational use include international networks, databases, library catalogues, and information pools. To benefit the curriculum, these resources could be an integral part of the online activities.

Based on literature review and research on computer conferencing courses at NKI in Oslo, Rekkedal and Paulsen (1989, 64) identified seven areas where computer conferencing can be applied in distance learning systems. Their accounts are paraphrased in the following:

1. *Distribution of information.* Distance teaching systems need to increase the efficiency of distributing and updating information to students, faculty, and staff. Computer conferencing can, for example, be used for distribution of updated learning materials and information about courses, seminars, examinations, and student activities.

2. *Two-way communication between tutor/counsellor/administration and student.* In most distance teaching systems, submission of assignments for correction, evaluation, and feedback is important. Research shows that extended turnaround times may have destructive effects on course completion. It often takes too long for students to get help when they encounter problems in their studies. To some extent, telephone support has been used in these situations, but computer conferencing systems function more conveniently. Students may, for example, ask questions at any time, without the time delay of land mail. Draft solutions may be discussed, introducing a more flexible organization of tutoring and assessment. Student answers may be made available to other students, before or after submission deadline. Computer scored tests can also be included in online systems, as a substitute for traditional off-line computer scoring. In higher level education, two-way communication by e-mail may be used in the guidance of individual student projects.

3. *An alternative to face-to-face teaching, introduction of group discussion and project work.* Many distance education programs include occasional face-to-face meetings between tutors and students, but practical or geographical considerations restrict many students from taking part in these meetings. Sometimes, face-to-face meetings develop into one-way presentation of subject matter. Computer conferencing, on the other hand, concerns mainly information exchange and interpersonal discussion. Electronic classroom discussions can develop into exciting experiences of group learning. In the same vein, the medium seems to foster equality of status between the participants. Finally, special group-learning techniques--such as group submission of assignments, group-learning and presentations, seminars, and project work--may be applied.

4. *The public tutorial.* Most distance education systems are designed for individual learning, but communication between one tutor and a number of individual learners is time consuming. Questions, answers, and comments from one student will, however, often be of relevance to others. In a conferencing system, such interaction could be made accessible to all students along with pre-produced information of general interest.

5. *Peer counselling.* Informal peer counselling and cooperation are regular activities in on-campus programs. In computer conferencing, the possibilities for such collaboration are obvious and actively supported in the majority of learning programs. Peer help in solving problems may often come from an unknown friend. Peer counselling may be of particular value in large scale systems where hundreds of learners are studying the same subject.

6. *Free flow discussion.* A number of educational conferencing systems have established social conferences, such as the cafe, the pub, or the coffee shop. These conferences have shown that informal discussions and non-academic activities can thrive in educational conferencing systems.

7. *The library.* In an online text database, articles, lectures, research reports, etc. can be made available to the students.

In a literature review paper on collaborative learning, Kaye (1992) described the following seven applications of CMC in education and training programs:

1. *The virtual seminar.* The International Executive Forum organized by the Western Behavioral Sciences Institute (WBSI) in La Jolla, California, from 1982 to 1991 is paradigmatic of the virtual seminar model. In this model, a small group of articulate peers exchange ideas and information over several months. The high quality and value of the online discussion is evident even from a retrospective analysis of the conference transcripts (Mason 1991).

2. *The online classroom.* Applications of the online classroom model have often been inspired by the "virtual classroom" research carried out at the New Jersey Institute of Technology (Hiltz 1990). Now, there are three common features of most online classrooms. First, the group size is comparable to that in a face-to-face class. Second, there is at least one person responsible for guiding the group's activities and, third, computer conferencing represents the principal mode of communication. Varieties of online classrooms depend on the age of student groups, the educational levels, and the roles taken by the people responsible for the groups.

3. *Online games and simulations.* The online game or simulation is a variety of the online classroom which merits further development, since it can build on computer processing in addition to computer conferencing. Examples of such simulations are the "virtual management practices laboratory" (Hsu 1990) at the New Jersey Institute of Technology and the Arab-Israeli conflict simulation (Goodman 1992) at the University of Michigan.

4. *Computer-supported writing and language learning.* Since the combination of CMC and word processors essentially has a textual nature, it has attracted interest within the field of the teaching of writing and language skills. Examples include Connected Education's creative writing courses and Rio Salado Community College's courses in creative writing, technical writing, and English composition.

5. *Multi-media distance education adjunct.* There appear to be strong arguments for introducing CMC into multi-media distance education programs in addition to print, broadcast, educational software, correspondence, telephone, and face-to-face meetings. E-mail can provide more regular and faster communication between students and tutors. Conferences provide a means for group discussions and interactive learning; communication amongst students, tutors, and course development and support staff; and opportunities for socializing and cooperation amongst students. Online databases can provide access to reference and library resources. Two examples of multi-media distance education providers are the British Open University (Mason 1989 and Thomas 1989) and EuroPACE.

6. *Lecture-room adjunct.* In large on-campus lecture classes, there is little time for individual students to ask questions and the format does not invite to discussion. In such a context, universities may establish conferences where students can get help from teachers and other students.

7. *The education utility.* The education utility is a set of online resources that students and faculty can access. The Campus 2000 system, run by British Telecom and Times Newspapers, is one system that provides schools and further education colleges with access to databases, computer based training material, international electronic mail, and a computer conferencing system. Campus 2000 hosts some distance education programs and many inter-cultural networking projects.