Building a Learning Community via Videoconferencing

Hu, C., Wong, A.F.L., Sharpe, L., Crawford, L., Gopinathan, S., Khine M.S., Moo, S.N.,
National Institute of Education, Singapore

Abstract

Rapid technological development in the last decade makes it easier than ever to use technologies as collaborative learning tools. Computer video conferencing as a computer-supported collaborative learning (CSCL) technology provides increasing opportunities for learners to share experiences across time and space. The following describes how multipoint desktop video conferencing (MDVC) is used in preservice teacher education programs in Singapore to enhance the professional development of preservice teachers by allowing them to share ideas, experiences and teaching resources in real time with an audience wider than the schools where they teach.

Background

Learning theorists claim that if learning can be situated in meaningful contexts which require collaborative processing, learners tend to see the relevance of discussions and remember information better (Brown, 1989). According to Riesbeck (1996) collaborative conferences benefit from the inclusion of ‘carpenters’, or experienced practitioners, who act as coaches and keep the discourse focused, and who can help evaluate and validate practice. Ideally, teaching practicum should provide opportunities for trainees and their university supervisors in putting such ideas into practice. Yet, in reality trainees on teaching practice and their supervisors are for the most part ‘locked into’ their respective locations. It is difficult to form what Lawrence (1995) and Squire and Johnson (2000) term ‘distributive communities of practice’ that extend beyond the confines of a particular school or neighborhood and in which trainees regularly engage in sharing and learning. In such communities of practice, work, responsibility and knowledge are distributed amongst practitioners (Lave & Wenger, 1991).

The Teaching Practice Discourse and Computer Communications Project originated from research done at National Institute of Education (NIE) in the mid 1990s. A 1994 NIE study (Sharpe et al., 1994) found that discourse in NIE supervisor and cooperating teachers’ teaching practice conferences was predominantly ‘low level’, comprising mainly factual and prudential discourse. The appearance of multipoint desktop video conferencing (MDVC) technology brings a hope that this new technology may help to break down barriers of time and space that prevent the quantity and quality of professional sharing in practicum. As MDVC enables student teachers to interact with their supervisor and peers without leaving their school premises, it is also hoped that a learning community may be built to facilitate preservice teachers’ professional development. The project is a partnership between NIE and two school clusters in Singapore, and is funded by the Ministry of Education.

Building a Learning Community via Videoconferencing

The project began with real time videoconferences. Trainees posted to different schools for teaching practice used MDVC to conference with their peers in other schools and with their university supervisors. Conferences were carried out on a weekly basis (Sharpe, et al., 2000). Each conference group comprised up to five trainees and one supervisor. Discussions followed an agenda that dealt with the core teaching competencies which is used by NIE to evaluate trainee teachers. The competencies include planning, developing lessons, communication, managing and evaluation. The participants were able to see and hear each other in real time, and were able to share their ideas and experiences with their peers and university supervisors.

Once we were able to run real time conferences smoothly, we began to focus on the different kinds of applications that might be used during conferences. These included the electronic sharing of text, such as lesson plans, photographs of pupils’ work, PowerPoint slide shows, Internet pages and digital video clips (Figure 1). We also shared teaching video clips made by the trainees during real time conferencing (Figure 2).
Feedback from Trainees

Since May 1999, over one hundred trainee teachers have participated in the project. Despite the technical problems encountered initially, the feedback has generally been positive. The trainee teachers were generally “very excited” about the experience of taking and viewing lesson video clips. They felt that it “was a great experience.” Comments about the value of watching their peers teach were again positive. Many trainees felt that watching their peers’ teaching helped them. This was particularly true when it was a topic that they might find difficult to teach. All indicated that it was a good learning experience and most would probably agree with the trainee teachers who commented that it was a “good learning experience; helps in better and more critical analysis development”.

Lessons Learned

We have learned some important lessons through this project. Such lessons might be useful for those wanting to use MDVC for professional development.

- A user-friendly software application and relevant conference topics are most important for successful conferences.
- A videoconference group should not comprise more than six participants.
- Participants must be thoroughly briefed before the experience.
- There must be a fixed timetable for videoconferences.
- Participants should be provided with a conference agenda and asked to prepare beforehand for each topic.
- Time should also be provided for open chat, where participants have the opportunity to share immediate concerns.
- Technical assistance should be made available during conferences.

References