

Lessons for lessons

Here is a short list of some of the lessons learned in the case studies, and their implications for the planning and design of sessions. The “Further information” section gives details of resources for all aspects of videoconferencing.

Teaching and Learning Styles

As with any teaching event, the effectiveness of a videoconference session will depend on clear aims and objectives.

- Consider the possibilities of seminars, tutorials, group working sessions, and access to multiple media (videos, websites, shared software, etc.).
- Get participants involved by asking questions, encouraging discussion, or setting groupwork tasks. These can be local (i.e. off-line) or across several sites (i.e. on-line).
- Plan for a variety of activities to provide a regular change of pace.
- Plan interactive tasks that are meaningful in terms of the lesson and educationally useful.
- Use the special camera facilities (presets and zooms) to focus on current speakers.
- Take advantage of the technology to use a wide range of “props” and illustrative material.
- A videoconference session may require more detailed planning than traditional live teaching.
- Take account of participant numbers in planning the session, especially for the types of presentation and interaction being used.
- A detailed lesson plan with a timetable is an essential tool for successful videoconferenced teaching.
- Avoid being just a “talking head” on screen, by using visual aids and changing the camera shot.
- A “live” teacher gets feedback all the time from body language, facial expression etc. Videoconferencing doesn’t always give a clear enough picture for this to be useful, so you need to build in pauses to ask for feedback.
- Creating a “remote lecture” is the least effective use of videoconferencing for teaching. Its main use is where a visiting expert could not otherwise deliver a presentation.
- Lecture type presentations should, ideally, include some interaction, such as question and answer or discussion sessions.

Remember - everything takes longer than you expect.

It’s easy for a teacher to slip into addressing only students in the same room, and pay less attention to remote students.

- Build interaction with remote students into the lesson / tutorial plan.
- Stay aware of what remote sites are seeing at any given time. In a multi-point call you may not be visible all the time, or the on-screen image may be very small.
- Locate the camera(s) and remember you need to look at the camera, not the monitor, if you wish to appear to be looking at participants at the remote site.
- Practice giving clear feedback that you’re paying attention. Visually: nod, smile, and if possible place the camera above the monitor so that you appear to be looking at the speaker. Verbally: for multi-point conferences you may not always be visible.
- Remember that gestures or moving around too much may cause problems for remote viewers.
- Forget that you’re “on camera” and try to keep things as natural as possible.

Speaking to strangers in this alien environment can be daunting.

- If possible, arrange for all the participants to have met “in person” before videoconferencing, at least for the participants at each site. This encourages interaction.
- Allow time for local groups to talk and for cross-site introductions, or leave on-air time for coffee and chat.
- Make sure there is a teacher or facilitator at each site, at least at the beginning or for first use.
- Spend time at the beginning introducing the lecturers, facilitators and the students, especially if you are planning group working.

- Make sure all participants are familiar with any technology they may have to use in the session.
- Set realistic expectations of the participants at the start, make sure everyone knows what is expected of them.
- Being “on television” and in a studio can make the conference very formal. Try to use activities which encourage informality and participation. Seating arrangements are particularly important.
- Some studios and rooms have an inflexible layout which may not be ideal for your session. If necessary, think of ways to work round problems such as the speaker not being able to see students in the same room or having to sit in fixed rows.

Although the ATM videoconferencing network is very high quality, there are limitations imposed by the technology.

- Looking at a screen, however large, can be tiring. Plan to provide a change of activity or focus every ten minutes or so.
- Large text and illustrations are needed to appear clearly on monitors and projectors. Text must be at least 24pt. Remember the “landscape” format of the screen. You may need to revise course materials such as slides and PowerPoint presentations to allow for this.
- You can also show 35mm slides and actual objects.
- Some video presentations, websites or animations may move too quickly for clear transmission. Check the quality at remote sites before you use them.
- Use dark or bright colours against a pale background.
- “Busy” fabric patterns and “busy” illustrations can blur or distort in transmission. For ISDN conferencing try to avoid using or wearing anything with lots of small detail.
- Moving around when you are on camera but not speaking can be distracting.
- Microphones can pick up background sounds. In larger groups speakers have to “take turns” and facilitators manage discussion sessions accordingly.
- If a mute facility is available, is good practice to mute the sound from your site while another site is transmitting, to avoid feedback and distraction. Remember to turn the sound back on when you need to speak.
- Similarly, remember to switch from preview to transmit mode for vision, and to refresh still images sent from the visualiser as required.

Equipment

You and the other participants will be using unfamiliar equipment, and be dependent on it to make the event run as planned.

- Practice using it before the session begins, to build experience of and confidence in the equipment.
- Take part in a videoconference someone else is running before you run your own.
- Know who to contact for technical help at each site.
- Check the quality of sound and vision is adequate at all participating sites. This is especially necessary if some participants are not using the MAN ATM network.
- Provide remote sites with hard copies of handouts, slides and any other materials to be used, before the videoconference.
- Have backup plans for continuing or re-scheduling the lesson if the connection fails.
- Fixed room bookings mean that sessions using videoconference studios must run to time. Time the lesson plan and practice your time-keeping skills.

Potential barriers to success

- **Timetabling.** The complexities of finding a suitable time-slot for students and teaching staff across more than one institution can be formidable. For use as an integral part of the curriculum, students across institutions have to be at the same stage of their courses.
- **Cost.** While the Scottish MAN network is funded centrally and therefore free to individual users, conferencing outside this network incurs charges which can quickly mount up. In some cases they may be high enough to eliminate any savings made on travel expenses etc.
- **Facilities.** Not all videoconference suites or roll-about systems provide the additional facilities which might be required, such as the possibility of sharing applications or providing high-quality visuals. In some cases on-line and off-line activities might have to be modified to take this into account.
- **Flexibility.** The layout of videoconference suites and camera angles, etc. may not be flexible enough for some teaching situations.
- **Staffing.** Some studies found the need to have a staff facilitator at each site limiting. Others advocated letting students control the technology and select a facilitator from amongst themselves.

- **Formality.** Videoconferencing seems to promote a more formal approach than a face-to-face interaction, so teaching styles and methods must be modified to take this into account and if necessary promote informality and interaction.
- **Time-lags.** ISDN2 or desktop (Internet) videoconferencing can introduce significant time-lags. This can inhibit discussion and make students reluctant to interrupt.
- **Unfamiliarity.** The situation is likely to be unfamiliar to both staff and students, and this can inhibit communication. However most studies suggest that this unfamiliarity can be rapidly overcome.

In summary

Using a videoconference to deliver part or all of a course means that some or all of the course content and structure will have to be re-designed. The case studies here show how this can be used as an opportunity to improve what is on offer to students and to re-think and explore alternative teaching methods. For most participants, this will be a new form of interaction, so give everyone involved time to get used to it. Because Scottish HEIs have their MAN links, very cost-effective and high quality videoconference use is possible. As with any teaching situation, careful preparation and planning pays dividends in promoting a successful experience for all.