Teaching by videoconference
- a guerrilla approach

Sean Milligan

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Background
Thurso College identified that there was local demand for a navigation course, but did not have a local tutor available. Staff in Thurso were aware of an existing (very successful) navigation course provided on Orkney, and decided to approach that tutor to teach their course from a distance.

Why videoconferencing was chosen
The course relies on the use of navigational charts so an audio-only link would not have been adequate. There was also an interest in both Thurso and Orkney Colleges in piloting a course delivered through videoconferencing. We were able to offer the course to students on Skye, which would not otherwise have been possible.

The Execution
The students on this course were well motivated adults - indeed one of them was a lecturer at Thurso College who herself has considerable experience in the use of videoconferencing. There were no students in Orkney, where the tutor was based.

The navigation course has been running for some time, and there are well tried and tested paper based support materials provided. Class preparation was little different to the face-to-face tutorials which have been used in previous years with the primary considerations always being the best way to achieve the teaching objectives.

The typical format for the class was to present material in a tutorial format, to work on some practical exercises, and to check these, and then to have an opportunity for further questions before moving on to the next section of the topic. For navigation much of the course relies on large navigation charts, and it was important to find a strategy which allowed all students to see examples and illustrations presented by the tutor, and for the tutor to be able to check work that students were doing on the charts.

The tutor spent about 15 minutes prior to each session checking that the equipment and camera settings were as desired. One fixed camera was trained on the tutor’s chart (actually the camera was balanced on an improvised tripod made from cardboard boxes), one camera was used to give a talking head image of the tutor, and the visualiser was also available. The
camera trained on the chart could zoom in to show the
detail, including the figures written on the chart, or it
could be used to show an overview of the whole chart.
The tutor had a split screen image allowing him to see
all the student sites at once; the students turned off
voice-switching so that their views were fixed on the
signal output selected by the tutor.

The students worked in groups. While the students
were working their microphones were on, allowing the
tutor to listen to the discussion and conversation
within the group. Students placed their completed
charts onto the visualiser to allow the tutor to check
and comment on their work.

When using the visualiser to build up diagrams the
tutor was careful to draw something, withdraw his
hand, and then pause, to allow the image being
received by the students to settle.

What support was needed
At one of the student sites there was technical support,
and this site took the lead in dialling up the other sites
and establishing the necessary links. The students at
the other site did not have technical support, and
initially had to be talked through the steps necessary to
get everything set up as desired. They quickly learned
this process, and were happy using other equipment
such as the visualiser.

Weaker students were supported and encouraged by
the others in the group. This worked particularly well
with a group of adults; it may work less well with
younger students.

The tutor was given about half an hour individual
training before undertaking this course.

Evaluation comments
The students quickly gained confidence in using the
system. They spontaneously took to waving their
hands as they interrupted with a question, so it was
easy for the tutor to identify the source of the query.

The Barriers
Only during the first session did the students show
signs of being nervous about the technology.

Daylight shining on the chart sometimes made it
difficult to see properly, but by adjusting the lighting
this could easily be overcome.

The Enablers
Better not to have a local class as well as the remote
students.

Advice for new users
We needed to be able to move equipment to positions
that the teacher wanted. In a teaching space the
teacher is likely to rearrange tables, OHP etc., so this
sort of flexibility is important. The sessions benefited
from a variety of activities, some across the sites and
some locally. If you do anything for long enough
everything that can go wrong will go wrong - it isn’t
your fault. Keep a sense of humour.