



## Use of Video in Lectures

Video in lectures has been trialled in two ways over the 2008/9 academic year. In the first, Flip Video cameras were used as a means of helping students improve their presentation skills in the *Theory of Management* module. In the second, lectures were captured using Echo360.



The idea behind recording students' presentations was not only to give them a chance to reflect on their performance, but also to consider how they may look from other people's perspectives. The cohort was divided up into groups and two recordings were

made of each group's presentation – one from close range so the speakers could be heard clearly, and one from a wider angle so the students' body language could be observed. The students took turns in taking responsibility for recording each other and the videos were uploaded to WebCT to be viewed back.

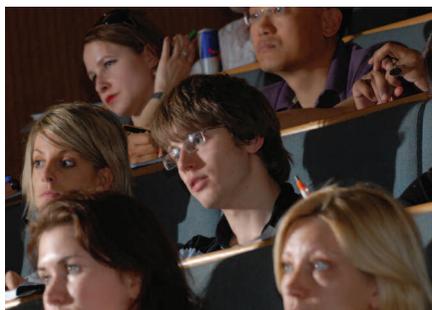
The module leader is keen to continue videoing presentations in the 2009/10 academic year: "I think it had a dramatic impact on the module with the emphasis that I put on group work and group dynamics and also in terms of attendance and behaviour. It was also well received by the students as they could look at a number of different presentations on a topic and use them for revision."

In a separate University project, Echo360 was piloted over the past academic year in a number of larger lecture theatres with a view to embedding it further into teaching and learning. The Integrative Technologies Project was able to make significant use of this technology. From a survey of 207 students, the majority considered streamed video to be highly supportive of their learning. They used it for several different purposes, and the lengths of time students watched the videos were a reflection of the different uses they made of it. Three-quarters used the recordings to look over specific material with which they had struggled. A significant proportion used the recordings to write up notes and the majority found they could use the recordings to aid them with specific assignments. Over half also indicated that revisiting videoed lectures was an integral part of their revision process and that they used it as a memory-jogging tool.

## Audience Response Systems

Student participation in lectures was encouraged using the TurningPoint audience response system (ARS). In one module the students were presented with a number of ethical dilemmas and asked to vote. The module leader was particularly keen as it 'showed the spread across the group in terms of the right ethics to have in different types of situation – that was lots of fun and it was good to be a bit playful, so I will be looking at ways of using it more.'

Student-led research into the use of ARS in another module reported that, from a lecture group of about 180 students, 95% considered that they would like to use this system more often, and 89% especially thought that its use for revision classes was really useful. They reported enjoying the interaction between the lecturer and themselves and suggested that it helped them to focus and to maintain concentration. The lecturer reported the system to be easy to implement and was convinced that his lectures had been enhanced by its use ('Yes. Absolutely'). He also stated that he would strongly recommend it to other colleagues and that he would use it in most of his lectures in future as it gave the opportunity for more interesting



and interactive sessions, getting feedback from students and knowing more about the knowledge-level of the group, as well as enabling students to self-evaluate and give them confidence about how much they actually knew.

The ARS kit trialled was purchased through a successful bid to the University's Development and Alumni Relations Office and saw 200 handsets made available to the Business School. Enthusiasm from students and module leaders alike has led to the purchase of 1,000 TurningPoint handsets – enough for one to be issued to every first year student in the 2009/10 academic year (around 740 students) and enough left over for dedicated use in at least one other module. Strategies for using ARS effectively in teaching and learning will be investigated over the coming year, as will their potential for attendance monitoring.

## Computer-Aided Assessment

The Integrative Technologies Project has introduced computer-aided assessment (CAA) into a number of modules. Four of the six core first-year modules now use formative CAA – two are using external sites made available by textbook publishers and two are using the University's Virtual Learning Environment (VLE). Of those using the VLE, one module leader chose to ascribe 10% of the module marks to the quizzes (*Introduction to Econometrics*). Another module leader used CAA summatively.

For the formative uses, the questions are all presented as multiple choice questions (MCQs) in order to automate marking. Feedback from students revealed they liked having the questions available in order to monitor their own progress, but on the whole they did not make heavy or persistent use of the MCQs outside of the *Introduction to Econometrics* module. One of the challenges with using this method of assessment is limitations with questions – mathematical formulae cannot be represented well without use of images (eg images of equations were used instead of the VLE's formula editor as it was not possible to construct adequately challenging questions in this way). However, use of images for questions presents challenges around accessibility.

A trial of Assessment21's ABC computer-aided assessment (CAA) tool was undertaken with 115 M-level students for a summative component of their module. ABC was found to be an effective way of streamlining exams for large groups of students, particularly where marking is concerned, as this can be undertaken question by question rather than script by script. One marker noted that a key benefit was readability – 'I didn't have to try and interpret the writing as well as the content, which actually made a surprising difference. The answers either clearly made sense or they didn't.'

Holding a computer-based exam under invigilated conditions presents logistical problems. Large computer labs are required and when factors such as computer or seating failure are considered room capacity may be reduced. In order to handle large cohorts of students, multiple rooms would be required, creating an extra layer of complication for the management and invigilation of those groups. A solution may be to use question banks with smaller groups.

