

A Research Case Study: Using Thunder™ to increase student involvement in History seminars

Dr Brett Bligh discusses some of his research case studies into the use of interactive flipchart system Thunder™.



The Purpose

The purpose of the initiative was to determine whether student involvement in seminars could be improved by the use of planned, technology-supported scenarios, and to assess the quality of the interactions which were fostered as a result of the scenario designs.

The teaching and learning context

The School of History at the University of Nottingham has been taking strides to develop its educational technology base because this is seen as a mechanism for increasing student interest and improving involvement.

The technology

The Thunder™ system used as the basis for this research was originally developed for business use and appropriated for use in educational settings by the Visual Learning Lab (VLL). The purpose of the technology is to allow the display of many pieces of information simultaneously, using the concept of “flipchart pages” which are displayed by multiple projectors and controlled by a central easel. The Thunder™ system also replicates the easel interface on the tablet PCs (image to the left). This allows free-form interaction such as the writing of notes, drawing of diagrams and contribution of pictures to occur from the learners' seats.

The Process

A tutor from the School of History who did not consider herself technology-confident, was

Evidence of success

Our results showed a gradual increase in confidence with the system, which seemed to echo the inevitable increase in familiarity between members of the student group, and between students and the tutor. The group-work exercises worked quite well; students were able to discuss topics in depth during the breakout sessions and contributed significant sets of notes to the plenary discussions. Some student groups typed bullet-pointed notes into a word processor, while others chose to draw diagrams and hand write and utilised more colours in their presentation. Perhaps the aspect of these sessions which most confounded our expectations was that student behaviour in the two scenarios seems to be very similar. Video evidence seems to indicate that this might be because student attention, during the synchronous sessions, was directed inwards within the group, rather than outward at the multiple projected screens where the construction of work was being displayed.

The exercise involving the drawing of abstract diagrams by students proved controversial. At the beginning of the session, many of the students did not see the relevance of the exercise. After some persuasion by the tutor, students were persuaded to have a go. A few attempted artistic renditions of liberal democracy, while others utilised formulaic representations such as ballot papers. The ensuing discussion, however, proved to be a rich discourse about what constituted liberal democracy and what assumptions underpinned it, with some of the more stereotyped representations drawing considerable critical attention. Ultimately, the

exercise was seen to have been valuable by the tutor despite the divided opinion among the students!

Outcomes

The most tangible direct outcome of the project was that the History tutor, Carole Mallia, was recognised for her innovative seminars by being presented with a University of Nottingham Postgraduate Teaching Assistant Award. After accepting the Award, Carole reflected on the aims of the initiative: “Working with Brett and the VLL team certainly helped me gain confidence in using unfamiliar technology, and has made my approach to learning and teaching more open and confident. Feedback from students was particularly positive in the potential for using the Thunder in seminar teaching, as well as for their own study and preparation. The fact that students were spending more time thinking



Carole Mallia receives the Postgraduate Teaching Assistant Award from David Burns (Director of Training & Staff Development at SEDU), and Tessa Payne (Head of the Graduate School)

and responding to others in seminars, rather than taking notes, seems to have been one of the most beneficial aspects for them, and was my main aim for participating”.

Transferability

While this work was based in History, it must be emphasised that the theories we used – of student involvement and the integration of technology, space and learners – were developed to influence the design of teaching and learning scenarios in a very general sense. Many theories of learning interactions are equally transferable. Our only pre-requisites for this project were interesting visual representations, and a willingness by tutors and students to engage with new technology-supported methods, which would inevitably have an impact on their classroom practice. In theory, this is applicable to a range of other subject areas. In practice, we are already undertaking similar sets of activities in conjunction with the Department of Classics and with the MA course ICT in Education.