

Cooperative learning in CSE.

Introduction

On two computing modules which require a more discursive response from students (*Computing and Ethics* and *The Professional Context of ICT*) a computer supported collaborative learning (CSCL) approach has been developed to enable students to benefit from the ideas of others, in this case by working with students from HEIs in Ireland and America. CSCL has been developed in part because some of the primary learning outcomes for each of these modules relate to raising student awareness of different cultures and, consequentially, their diverse ethical standpoints. It is, however, felt that this approach could also be of interest to many subject disciplines and of especial use within modules which demand a discursive outcome.

To give some background to this particular case study, DMU has collaborated with two other HEIs offering similar modules to allow students to work in international virtual groups. In this case the technology has been utilised because it can provide an experience for the students that would not be available otherwise.

Use of Blackboard: groupwork and assessment

The modules operate through use of a VLE (Blackboard) within which a common assignment is presented to all of the students in each of the participating HEIs. Students are then put into virtual groups, usually comprising six members, in order to address the task set. The task for the particular modules in this Case Study consists of resolving an ethical dilemma that has been outlined in a given scenario.

Once grouped the students are then given access to a module discussion area on the VLE as well as a private group area. Initially they use this private group discussion area to introduce themselves to each other as well as to devise a strategy for achieving the assignment.

Relationships amongst group members then develop as the strategy is implemented towards production of the final group submission. For this final submission the students may present the actual discussion threads that have been developed or can take the evidence contained therein and represent this in a more structured report format. Whilst individual assessment of each message is not undertaken there are penalties for non-contribution and the technology

allows the tutor to easily check on each individual's activities and to "encourage" greater involvement if that becomes necessary.

Following submission all of the group assignments are individually marked by all of the tutors involved before overall grades are moderated and agreed. These results then go to external examiners in each of the individual participating institutions for final approval.

Finally the students are asked to reflect upon their experiences as part of the assessment for the module. As such students are required to consider and judge the way in which the group and the individuals within it have operated, to evaluate their strategy, their use of technology and the benefits gained as well as to consider the ethical use of technology in a more general sense. In this way the students become their own case study.

Recommendations

For any members of staff wishing to consider using this form of cooperative learning the following should, however, be borne in mind:

- The cooperative learning aspects need to be clearly integrated into the whole course design and not treated as a "bolt-on";
- Tutors need to be clear why they want to use the technology in this way – i.e. Tutors need to be sure of the learning outcomes that they expect students to achieve through the use of such technology as this will influence the way it is implemented.
- The assignment documentation needs to be very clear and agreed amongst all of the participating institutions. (This may cause tutors to reflect upon the design of their module);
- The students need to be made aware of the expectations made on them regarding the use of the technology;
- The students need to be able to see the integrated nature of the module and to see a clear purpose to, and value in, their use of the technology
- The students need to know that their contributions to the group work will be monitored and that action will be taken where necessary to address issues such as inappropriate usage;
- Both staff and students need to be clear how contributions to the discussion and the coursework are to be assessed – i.e. whether it is assessment of each of the individual contributions or assessment of the final group report that comprises such contributions.