Enquiry-Based Learning in Large Classes: Strategies for Organising Group Work

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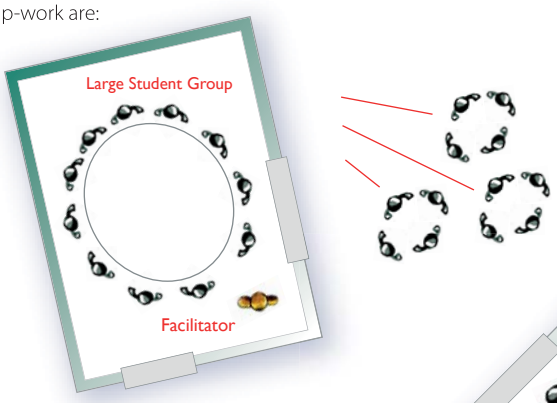
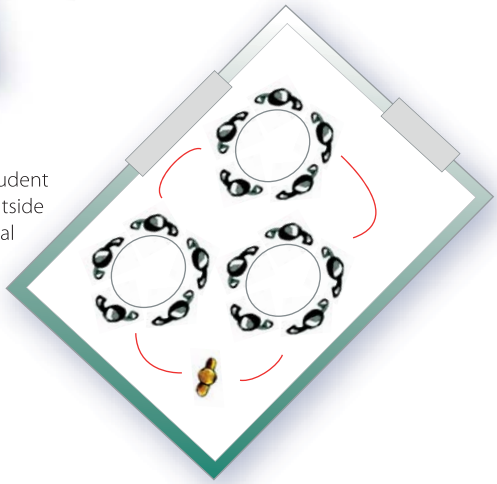
Enquiry-based learning (EBL) is a term that is used to describe an approach to learning that encourages students' engagement with learning initiated by 'a complex problem or scenario-that is sufficiently open-ended to allow a variety of responses or solutions' (Kahn & O'Rourke, 2005, p2). Using this approach, students are often required to work in small groups. Academic staff are often hindered by the challenges involved in supporting this use of group work in large class settings. This poster highlights three strategies based on either cases from the international literature, or EBL cases known to the authors in Ireland and the UK.

1. Group Organisation & Facilitation

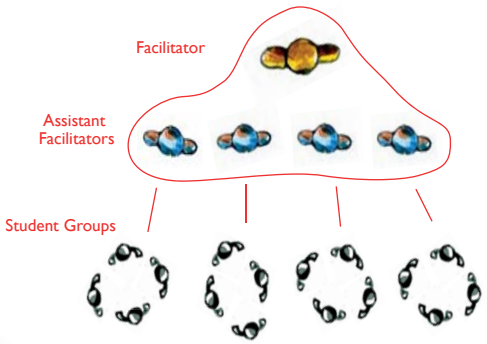
The optimum size of a group in enquiry/problem based learning is often in the region of 8-10 students (Schmidt & Moust, 2000, p21). In large classes, where this is difficult to achieve, alternatives to organizing group-work are:



a) One staff facilitator with a very large student group. Groups may subdivide for work outside the facilitated session (e.g. Case 1: Electrical Engineering, Loughborough).

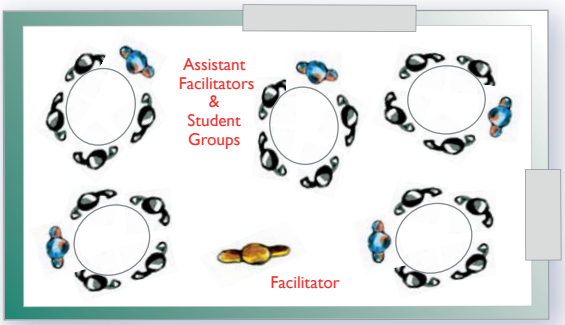


b) Having a staff facilitator roving among student-chaired groups (e.g. Case 2: English Literature, Manchester and Pastirick, 2006).



c) Using the key staff facilitator(s) to work (outside the classroom context) with some assistant facilitators who in turn work with the student groups (e.g. Case 3: Geography, University College Dublin).

d) Lead staff facilitator supports assistant facilitators (tutors/senior students) in the classroom (e.g. Case 4: Manufacturing Engineering, Loughborough and Roberts et al., 2005).



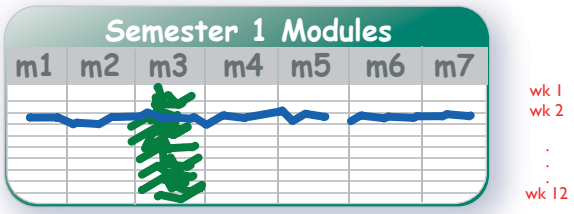
2. Timetabling

Creative use of the timetable is another way to support students in small groups.

A cycle of EBL often happens twice a week. To allow for this in multiple groups, the green group could meet Tuesday and Friday and the red group on Monday and Thursday (or meet two groups on the same day). However, these extra teaching hours for staff could be a disadvantage (e.g. Case 5: Occupational Therapy, Trinity College Dublin).

Where twice a week is not possible, a cycle of EBL could occur for one group of students weekly or fortnightly. For example, the green (or red) group could meet the staff facilitator once a week / fortnight and work independently in between. This meeting could be either a timetabled or a tutor-appointment slot (e.g. Case 6: Educational Theories, University College Dublin and Case 7: Computer Science, Manchester).

3. Curriculum Design



By introducing EBL strategically across a full programme there is more opportunity to take advantage of the collective resources.

One option is to select a core, sometimes integrated, module in each year (m3 Green above) and put resources into this module for small group-work (e.g. Case 8: Veterinary Medicine, University College Dublin).

The second option is that the group EBL experience is focused in one or two weeks of the semester and integrates all modules in the programme (blue in diagram above). All tutors come together to facilitate the student groups working intensively on a one, or two-week project (e.g. Case 9: Manufacturing, Automotive and Civil Engineering, Manchester).

See **www.ucd.ie/teaching/projects/EPL.html**, for full references and links to case studies mentioned.

Designed by Diane Cashman, UCD