Problem-based Learning Special Interest Group

Thursday 16th March 10.00 – 3.30
CEEBL, Manchester University
Call for informal presentations

Abstracts (200 words) are invited on the theme of

'Is EBL problematic?'

From PBL to EBL: A Bumpy Ride in Engineering?

The School of Mechanical, Aerospace and Civil Engineering (MACE) at the University of Manchester introduced the use of week-long EBL activities for first and second years this academic year. These EBL activities were largely based around PBL exercises developed at the former Manchester School of Engineering (MSE) at the former Victoria University of Manchester. As ever, there were strong differences of opinion amongst academics in the school of MACE in the value of using PBL/EBL as a core part of undergraduate engineering education. In particular, PBL exercises within former MSE contributed to specific PBL related modules such as PBL group work and PBL personal study. This meant that students took fewer specifically technical units in the first two years. Within MACE, the balance has been shifted back towards greater focus on technical modules and as such the PBL/EBL content has been streamlined and the implementation strategy changed. A key problem that former MSE implementation addressed was that of developing and assessing transferable skills developed through PBL activities (hence the reduction in breadth of technical material covered). However, it could be argued that we were producing students that were good at problem solving, team working and communication skills, but lacked the technical fluency to tackle challenging academic problems. This highlights the dilemma of whether an engineering degree should be about producing world class research specialists or more rounded engineering generalists more suited for a career in industry.

This paper documents the some what bumpy ride PBL/EBL has had in its transition from former MSE to MACE. A comparison is made between the fully integrated and partially integrated approach to the use of PBL/EBL and conclusions drawn from the pros and cons of each. Ideas for the future direction of EBL within MACE are proposed.