Problem-Based Learning Across Diverse Engineering Disciplines at Universiti Tun Hussein Onn Malaysia

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Abstract

In 2005, Universiti Tun Hussein Onn Malaysia (UTHM) lecturers formally embarked on a bold yet challenging journey of Problem-based Learning (PBL). Despite uncertainties of venturing into new territory they committed themselves by attending training sessions both locally and abroad, conducting talks with experts in the field, participating in module development workshops and finally putting into practice what they have learned in their own classes for a whole semester. This pilot project involved 30 academic staff who were selected from six faculties and two academic centres. These participants were given three training-of-trainers (TOT) and module development workshops before they were asked to conduct PBL lesson in one of their classes for one semester involving a total of 220 undergraduates who were selected using purposive sampling. Findings reveal that not only did the students benefit in the content grea but also in generic skills such as leadership, analytical thinking, conflict management and decision making. The students also said that despite the greater amount of work, it was compensated by the significant amount of knowledge, skills and positive values acquired without which they would have been deprived if the teaching had been conducted using the conventional way.

Keywords: Problem-based learning (PBL), case study, engineering undergraduates, generic skills, Malaysia