# AN ASSESSMENT STRATEGY TO DETERMINE LEARNING OUTCOMES IN A SOFTWARE ENGINEERING PROBLEM-BASED LEARNING COURSE

GEORGE G. MITCHELL and JAMES DECLAN DELANEY

*Department of Computer Science, National University of Ireland, Maynooth, Ireland.*

This paper briefly explores the role of experiential learning in software engineering education, focusing on Problem-based Learning. An existing assessment strategy for grading individual students in a small group Problem-based Learning setting is described. Although the student grades obtained may be a reflection of the course success, and standard questionnaires are also employed to monitor student feedback, the authors devised a method to determine how the students themselves perceive the success of the course in terms of their own learning outcomes. As well as complementing the existing assessment strategy, this would allow them to evaluate the possibility of integrating student self-assessment into the overall assessment strategy and would act as a valuable feedback mechanism in fine-tuning the course. The results indicate that students perceive a marked increase in their knowledge as defined by the course curriculum. In addition, there is a significant difference between how course facilitators grade the students and how the students rate their own knowledge. Interestingly, no obvious correlation was found between the academic results of the students at the end of the previous year and their subsequent results in the Problem-based Learning course.

Keywords: software engineering, experiential learning, assessment, Problem-based Learning, group projects