

Comparison study on the assessment approach of course outcomes

Abstract

The implementation of outcome based education approach in engineering courses aims to improve the teaching and learning quality in order to produce competitive, knowledgeable and graduates with high integrity. This approach emphasizes on the course outcomes or skill that should be grasped by each student at the end of the course. The assessment of the course outcomes signifies the degree of students' achievement in particular course. Different institutions used different methods of assessments but most of them are based on the direct and indirect assessment methods. The method and approach used in assessing the course outcomes may lead to unreliable achievement; therefore, a simple, reliable and practical assessment approach is essential. In this paper, a comparison of various approaches in assessing the course outcomes for selected Civil engineering course at Universiti Malaysia Sabah is presented. Four courses designed with different course outcomes, cognitive domains, type of assessments and at different level of study were selected for analysis. The method of assessment consists of direct and indirect method, and designed based on course outcome scores and Likert scale respectively. Assessment approaches for the direct method were categorized into three in order to examine the practicality and simplicity of each approach. The course outcome score from both methods were analysed and compared to evaluate their reliability. Analysis shows that direct method using sampling-based on classification of good, average and poor students produces a better CO score. This method is also simple, thus make it more practical to be adapted especially when it involves assessing a large number of students. Compared to indirect method, direct method is more reliable since the CO reflects the students' performance.