ABSTRACT

Evaluation is an essential process for the measurement of transformation that a student attains after a teaching learning process. Outcome-based education (OBE) in academics especially in the field of engineering is an accepted philosophy in recent years. The OBE system departs from the traditional method where assessment of students is based only on grades and/or ranks. Output has been the traditional measurement criterion in education field, which does not address the level of transformation in the learner, whereas outcome is the measurement of level of achievement showing the transformation. Assessment tools are required for the measurement of outcome. These tools could be direct tools for direct assessment or indirect tools for indirect assessment. An assessment can be a formative assessment or summative assessment. Learning is complete only if transformation is observable in all the vital aspects of attitude, skill, and knowledge. It is widely accepted that all these aspects can be measured in OBE.
NEED FOR ASSESSMENT

The three vital things in any teaching learning process are objectives, teaching methodologies and assessment. Assessment by the teacher is to support teaching learning process. It provides significant probability for improving student learning and to develop competency. During this process, teacher needs to assess and evaluate whether the teaching methodologies contribute to behavioral transformation or not. They also need to identify the student performance as an individual and as a group member in all vital aspects of attitude, skills and knowledge.

Assessment is the key to measure performance. Continuous assessment by teachers along with appropriate feedback, leads to the development of essential changes in the way students can be encouraged to express their point of view and the ability to deal with and guide their own learning.

OUTCOME BASED EDUCATION

Outcome based methods have been implemented in education system around the world, at various levels. Outcome Based Education (OBE) policies have been adopted by Australia and South Africa since 1990s (Donnelly Kevin, 2007 and Allais Stephanie, 2007). United States has also had an OBE program over the years, since 1994 (Austin Tammy, 2014). Hong Kong adopted OBE for its universities in 2005 (Kennedy Kerry, 2011). Malaysia in 2008, implemented OBE in all their public schools (Mohayidin, Mohd Ghazali, 2008).

The European Union has proposed an education shift to focus on outcomes, across the EU (European Commission, 2013). As an international effort to accept outcome based education, the Washington Accord was created in 1989. It is an agreement to recognize undergraduate engineering degrees that were obtained using OBE methods. Full signatories as on2018 are Australia, Canada, China, Hong Kong, India, Ireland, Japan, Korea, New Zealand, Malaysia, Pakistan, Peru, Philippines, Russia, Singapore, South Africa, Sri Lanka, Taiwan, Turkey, the United Kingdom and the United States (Washington Accord, 2012 and 2017).

Traditionally the education system all over the world has been relying on the quantitative measurement of the student outputs against an expected standard as a measure for student learning and student gradation. The test scores do not completely represent the actual behavior of the student in real life. Then evolved the new paradigm outcome based education. The basic difference between traditional teaching and outcome based education is mentioned below in Table 1.
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