

Assessing the Achievement of Program Outcome on Environment and Sustainability: A Case Study in Engineering Education

ABSTRACT

Beginning 2004, for an engineering degree to be accredited by the Engineering Accreditation Council, the offering program is required to implement the OutcomeBased Educational process. This educational process is based on achieving certain specified program outcomes in terms of individual student learning. One of the 12 major outcomes is Environment and Sustainability, where students are expected to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development. This paper details the CO-PO Matrix Analysis method applied by the Civil Engineering Program, Universiti Malaysia Sabah in assessing the achievement of this outcome. Using several cycle of assessment on different batches of student, it was found that the method is able to gauge the Program Outcomes achievement. Continuous quality improvement methods applied in teaching were also proposed to improve the outcome attainment.