

Student Learning Progress as Predictor for Graduate Employability Performance

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Abstract. Graduate employability is a major concern for higher education industry. There is a lack of research on the use of program learning outcomes (PLO) data to predict graduate employability performance especially on the duration they get employed. Therefore, our motivation in this study is to investigate how PLO data can be used to predict graduate employability performance. This study adopted quantitative analysis as a research method by using Simple Linear Regression to measure the highest correlation and significance values between learning progress and duration graduate to get employed. The PLO data from all semesters were segmented into four-time segments: 1st SEM, MID SEM, Pre-LI and LI. The slope value of linear model from time series analysis of four-time segments is used as a value to determine the performance of student learning progress. 47 responses (22% response rate) from 216 graduates who completed their study from Faculty of Computing, Universiti Malaysia Pahang in 2018 has been received as a case study. We found that learning progress from PLO 3 and PLO 6 which are '*Social Skills and Responsibilities*' and '*Problem Solving and Scientific Skills*' respectively, show significant values on the duration to get employed. This study highlights student learning progress is potential to be used as a predictor for graduate employability performance.

1. Introduction

In the era of Industrial Revolution 4.0, there is more and more higher education institution putting their concern on the issue of graduate employability. Graduate employability is very much influence with individual competencies in the field as well as generic competencies such as problem solving, communication and other skills most researchers refer as soft skills.

Many literature studies on student performance using data mining techniques. Although the techniques are capable to predict the academic performance, it is, however, depending on what data or attributes are been used. Most study using attributes like CGPA and psychometric data to predict academic performance [1]. These attributes mostly are not much helpful for the institution to predict graduate employability based on their skills or competencies level. Therefore, our motivation in this study is to investigate how learning outcomes data can be used to predict graduate employability performance. This prediction is important for higher education institution to improvise teaching and learning strategy through interventions approach. This is well supported by EDUCAUSE study [2] where most institution (96%) cited that improving student outcomes was a goal for their student success studies.

This study aims to identify the feasibility of student learning progress based on learning outcomes to predict graduate employability performance. To facilitate this study, the key research questions are:

