

Assessing Undergraduate Performance of Biology students at Faculty of Applied Sciences, SEUSL

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The present study aimed to correlate the raw marks obtained by the 1st, 2nd and 3rd year Biology undergraduates for short analytical answers and problem based assignments and the corresponding end of semester examination GPAs with scores obtained from an analytical rubric. Rubrics give descriptions of student performance that are separated into levels of performance for a given task. Each performance level is associated with a numeric and qualitative rating scale. Data were summarized as scatter plots and frequency histograms. Pearson Correlation coefficient and student t- test were used to compare performance for different tasks. The mean rubric scores varied between 2(weak) and 4(good). The correlation between rubric scores and traditionally given marks was high for the third year assessments only ($r = 0.867$ & 0.815) but low among the first year students ($r = 0.692$) and poor in the second year assessments($r = 0.288$). The mean rubric scores of first, second and third year students for the entire rubric and for each criterion used lay between a score of 2 (weak) and 4 (good). The significance of variations between year of study and type of task did not show consistent results. The correlation between GPA and rubric scores was low for the first and second year short answer assessments ($r = 0.65$ & 0.58) but high in the third year short answer and problem solving assessments ($r = 0.83, 0.82$ & 0.73). The results indicate the ability to answer logically was mainly seen among the third year students. The trend over years in end of semester examination GPAs also seem to reflect the ability of students to answer logically which was indicated by the rubric scores.

Keywords: Performance, Rubric, Tasks