## DOES THE PROPORTION OF MARKS FOR WET LABORATORIES AFFECT OVERALL PERFORMANCE? RESULTS FROM A BIOCHEMISTRY COURSE

Sheila A. Doggrella

Presenting Author: Sheila Doggrell (<u>s\_doggrell@yahoo.com</u>) 
<sup>a</sup>Doggrell Biomedical Communications, QLD 4178, Australia

**KEYWORDS:** proportioning marks, wet laboratories, student performance, biochemistry course

## **BACKGROUND**

Students have higher marks in programs/courses with higher, rather than lower, proportions of marks allocated to coursework. Coursework can take many forms, and the aim of the present study was to determine whether this generalisation applied when the coursework was wet laboratories.

## **METHODS AND RESULTS**

(i) The marks for the laboratories and exams were compared, (ii) any association between these marks was determined by regression line analysis, and (iii) modelling was undertaken to determine the effects of changing the allocation of marks on passing/failing rates.

Students who completed the course had higher marks in the laboratories than the exams. Regression line analysis of the marks in the laboratories versus exam showed (a) a poor line fit and (b) the correlation coefficient was moderate. A high percentage of students passed the course (90%). Modelling showed that increasing the marks for the exam decreased the number of students passing the course to as few as 51%.

## DISCUSSION

The allocation of marks to wet laboratories/exams can have a major effect on the percentage of students who pass courses. The question as to whether students who pass wet laboratories but fail exams should pass courses/programs needs to be given further consideration.

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Western Australia, 28-30 September 2022, page 29, ISSN 2653-0481