

# THE EFFECT OF GRADING MATRIX ASSESSMENT ON STUDENT PERFORMANCE IN A LARGE FIRST YEAR BIOLOGY CLASS

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## ABSTRACT

In our large first year biology course, 'Cells to Organisms', for 400-900 students per semester, we aimed to provide students with clear links between the course delivery framework and assessment. We wanted the students' grades to reflect higher order learning of key concepts of cellular and tissue biology, achievement of related practical skills, understanding of the nature of evidence and communication of science. In Semester 1 2008, student grades were determined by the traditional weighted average of marks for the assessment tasks. Since Semester 2 2008, the course has been graded with a grading matrix with specified standards for practical reports, practical competencies, communication tasks and knowledge for the grades of 7 (best) to 1 (worst). Analysis of results for the subsequent three semesters showed that 84-90% of students obtained a passing grade, and that 75% of those students achieved 60% or greater in the final examination – a marked improvement compared with about 50% of the students in Semester 1 2008. Also, their knowledge has improved with a 5% increase in the average mark in the final examination. The grading matrix resulted in improved student engagement with and performance in the assessment areas and graduate attributes addressed in the course.

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