Improving student outcomes and perceptions by enhancing engagement
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Introduction. This paper reports the results of a case study on the use of reflective practice to enhance student engagement and student success in a first year biosciences course at Griffith University.

Aims. The study was undertaken to evaluate different teaching methodologies, learning activities and assessment strategies and determine those that gave positive outcomes, with the aim of incorporating them into the course to enhance student engagement and success. Specifically, the study examined the development and modification of a course aimed at engaging student interest in contemporary issues and current research in the biosciences.

Methods. Through the course of the study, the curriculum was developed and adapted to maximise student engagement and a suite of teaching modalities and philosophies were implemented and trialled. All teaching methods and activities trialled have received recent interest and all are purported to enhance student engagement. Each modification was critically examined in terms of its effect on student outcomes and on student perceptions (as determined via anonymous student questionaires).

Results. The course Topics in Biosciences (1003 BPS) at Griffith University, Australia was developed with the aim of engaging first year university students in the biosciences and thereby aid in increasing student retention rates and the transition of students to the second year of their studies. The course incorporated learning activities that have previously been shown to have positive effects on student engagement including collaborative group work, writing to learn activities as well as oral and written presentations. Incorporation of other teaching practices which have been established to positively influence student engagement and success such as clear and rapid feedback on assessment, directed approaches to group assignment and in lecture activities to engage student participation were all included. The result was a well-rounded course that achieved good student engagement and success rates and that was positively received by the student cohort.

Discussion. Results from this study strongly indicate a positive influence for incorporating teaching activities that encourage active learning and engagement (such as in-lecture quizzes, collaborative group presentations, writing-to-learn activities) into the course structure. A clear correlation between incorporating these teaching practices with both student outcomes and student perceptions with the course was noted.