Enhancing student engagement and attainment through deliberate learning design
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a. The research

Biology for Biomedical Science: Organ Systems is a challenging Stage I human biology course with a large student enrolment (1200+) and encompassing a diverse range of abilities and motivations. A series of literature-informed, interwoven interventions were designed to improve student attainment in the course. Data collected over two semesters of implementation suggest the various interventions appear to have a synergistic effect in improving the attainment of participating students. Interestingly, emerging evidence suggests that participation in these interventions tend to have greater impact on students with low (GPA < 3 / C+) and medium (GPA < 6 / B+) GPA, when compared with higher-achieving counterparts (GPA > 6 / B+). These class-wide interventions also appear to have an equalising impact on Māori and Pacific participants (MAPAS), suggesting that interventions do not necessarily have to target sub-populations specifically in order to be successful / effective. Furthermore, whereas traditional, sub-cohort-targeted interventions run the risk of being perceived as stigmatising “additional help” intended for underachieving students, these non-grade bearing (i.e. completely voluntary), class-wide initiatives have the potential of being inclusive, non-judgemental, and non-identifying tools to assist students in the achievement of their personal goals.

b. Why this topic is important

Improving student engagement and attainment are consistently at the fore of the strategic planning, goals and vision of most higher education institutions. Increasingly, educators are expected to monitor consistently and act to address student achievement issues, with diminishing time availability, resourcing, or the appropriate professional development training. Preliminary data suggests that it is indeed possible to reach the ‘average’ and ‘at risk’ student, despite such constraints, by deliberate and purposeful learning design. Conversations arising from this topic may help to generate ideas on how we may sustainably implement long-living changes to the culture of how we approach and address the issue of elevating student engagement and attainment.

c. How the session will be run

10 minutes: Presentation of data on take-rate / effectiveness / artefacts
- Optional practice (‘mock’) test prior to course test 1 (self-testing; self-regulation; self-reflection)
- Online student interaction: Piazza discussion forum (virtual ‘office-hours’ tool; harnessing the power of peer knowledge)

Conversations / discussions (open floor). Some suggested guiding questions:
- How do we convince students to participate? (Or should we be trying to convince at all; is it really up to the students?)
- Is there scope for these approaches to be adopted to suit other courses? How?
- Would earlier application (e.g. during semester 1) help students with the secondary-tertiary transition?