INCREASING INTERACTIVITY IN SMALL-GROUP TEACHING: IMPLEMENTING NEW TECHNOLOGY IN A STATISTICS COURSE

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ABSTRACT:

As part of a pilot program to test “Next Generation” tutorial spaces equipped with electronic whiteboards, small-group teaching for a large (over 500 enrolments) introductory statistics subject was extensively re-designed. This was an opportunity to increase the opportunities for active learning (see e.g., Freeman et al, 2014) and authentic experiences of working with data (see e.g., Herrington & Herrington, 2006) through incorporating more technology use (including statistical software and online resources such as GeoGebra) within classes designed for small-group collaboration. This provided opportunities to foster greater collaboration between students, particularly for technology-based tasks which students previously would complete independently. The re-design in 2022 was based on constructive alignment (Biggs & Tang, 2011), and subsequently refined over the following years, based on both formal and informal feedback from staff and students, and direct observations from classes.

This talk will focus on the practical considerations underlying the re-design (choice of software, design of tasks) and how the technology enabled the approaches which aligned with our aims. We will also outline how we managed the feedback and refinement process, such as providing additional individual “pre-lab” tasks to ensure all students learn how to use the software. Some lessons learned from the implementation are necessarily specific to this particular context, but there are broader implications for implementing similar re-designs incorporating technology applicable to a wide range of subject areas.

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