Recycle, Repurpose, Reimagine: Using open source technology to enhance student’s learning of Research Methods

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At Masters level we teach Research Methods course where students from varied backgrounds, including home and international students, either come with no mathematical or science background and a deep anxiety centred on statistics, or simply come to enhance their skills. Due to such varied ability we have encountered two divisive issues. The first is in marrying practical skills, such as experimental design and report writing, to student perceptions of research method as being primarily about learning statistics. Secondly we are challenged, in a single class, to fully realise the potential of students at all the different levels of experience. Our solution has been two-fold. As recommended by Chew and Dillon (2014), within the practical classes we have de-emphasised elements such as theoretical statistics, focussing more on student-centred and student-led group activities about developing research questions and discussions. Secondly, we support student-led discussions with online technology as well as making extension activities available that facilitate autonomous learning of statistical concepts at a level that is most comfortable for each individual. Extension activities are resourced through open access or repurposed sources. For instance, we repurposed our Level 2 Echo 360 recordings to act as introductory lectures to students; recommended Coursera courses in statistical theory; evaluated and recommended YouTube movies and other online resources. Since open resources encompass a great range of material, they allow students to self-select the level at which they will engage and effectively widen the range of resource available to students. The purpose of this has been to change student focus in class from anxiety about statistics, to student-centred activities on research evaluation and synthesis while enhancing self-efficacy and confidence on our learners. We report here on staff and student experiences of using open source materials to show which types of resources were most accessed met our goals.

References