



Redesigning a subject: What do students think of pre-recorded videos and high-stake team projects?

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The physiology major at the University of Melbourne was recently redesigned and we launched three new 3rd-year subjects in 2021. This redesign was part of an assessment reform project supported by the Flexible Academic Program (FlexAP) at the University. The redesign including two new capstone subjects both launched in semester 2 of 2021. The two capstone subjects include *Physiology: Adapting to Challenges* (223 enrolled) that focuses on physiology applied to real-world and extreme conditions, alongside another subject, *Clinical and Translational Physiology*. Student experience was assessed with an end of semester survey (92 respondents).

Physiology: Adapting to Challenges included weekly pre-recorded content videos that included interactive, pause-and-think questions. The content videos were complemented by a 1 hour synchronous weekly tutorial (Poll-Everywhere questions and Q&A) and culminating in a weekly extended time quiz (10 x 2%). The content showcased and explained physiology in real-world context to challenge students to think of physiology in unusual situations. Majority of students (81%) found pre-recorded videos effective, 89% found the interspersed questions helped their learning, and 88% of respondents appreciated the flexibility that pre-recorded lectures provided. The weekly quizzes also encouraged students to stay up-to-date in their studies. Due to COVID-19 lockdowns in semester, weekly tutorials were online in 2021, but given the option 54% of respondents would attend face-to-face tutorial, while 35% would still attend online.

In parallel to the content and quizzes, the students work in teams in an 8-week student-driven literature-based team project (30%) with peer-review of team-members (10%). A timetabled workshop dedicated to the team project was helpful (95% respondent), and 70% felt they could not have completed the project without this scheduled time. One of the major student concerns in team-work projects include social loafers and 84% felt the peer-review encouraged individual accountability. Furthermore, majority of students (83%) considered the assessment weighting of 30% for the team project as appropriate.

The assessment design consciously focused on moving away from high-stakes tests and exams towards distributed weekly quizzes, team-based project and assessments prioritising skills acquisition and development in the students, through working in teams on projects that focused on scientific communication, and peer-review. Overall, 94% of respondents found this subject is a good learning experience and felt rewarded for their work. In both the quantitative and qualitative feedback in the survey, students generally had a positive attitude towards the subject and highlighted that the content extended their physiology knowledge and provided them with insights into how physiology relates to real-life in novel aspects that they had not related physiology with previously.