

## **Authentic assessment during Covid-19: an Australian postgraduate computing degree program example**

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### ***The challenge***

This case study outlines the challenges faced during the Covid-19 pandemic in relation to transforming assessment design. It focuses on a core study unit with an approximate class size of 300 students in the Master of Information Technology (MIT) degree programme at an Australian university. When the Covid-19 outbreak first affected our education delivery in March 2020, we had little time to plan and transform assessments, instead addressing emergency remote learning (Khlaif, Salha and Kouraichi, 2021).

With very short-notice (fewer than two weeks), we were expected to update our unit of study outline, including the redesign of different types, modes, and implementation of assessment. In addition to this challenge, change management was a crucial issue in our micro-level decision-making because we had already published the course outline and were about to start face-to-face delivery of classes and tutorials. We had insufficient information on unit delivery plans and assessment implementation options, including whether to go online for the entire semester or only the first half. About 80% of the students enrolled in the unit of the study were based overseas, and many of them experienced border closures or travel restrictions (Champagne and Granja, 2021) around the beginning of semester one in March 2020. Moreover, it was challenging to decide on the right tools to implement assessments apart from using Canvas (our university's LMS).

We had inadequate information on the constraints associated with the available tools, including their usability and accessibility.

The most critical challenge in the transformation of our teaching was the design of the assessments in crisis. Studies suggest that authentic assessment activities connect classroom learning to real-world experiences (Ashford-Rowe, Herrington and Brown, 2014; Villarroel et al., 2020), reflect practical task situations (Palm, 2008; Fook and Sidhu, 2010; Villarroel et al., 2018; Sotiriadou et al., 2020; Karunanayaka and Naidu, 2021), and demonstrate students' capability to analyse and synthesise the tasks in meaningful contexts (Swaffield, 2011; Ashford-Rowe, Herrington and Brown, 2014). However, as part of our emergency response in the midst of the pandemic, quickly creating authentic assessment online was challenging, especially with reduced staffing resources and an uncertain environment where both students and staff were under increasing amounts of stress.

### ***The response***

In the process of designing assessments, we first reviewed existing assessment contexts within the unit of study. It helped us to strategise change implementation and management and make informed decisions on different assessment perspectives in which change was necessary. As the study unit was built into authentic assessments for face-to-face delivery to keep students motivated and engaged (Ellis et al., 2020; Villarroel et al., 2020; Schultz et al., 2021; Sokhanvar, Salehi, and Sokhanvar, 2021) and to support them to develop graduate qualities for employability (Villarroel et al., 2018; Karunanayaka and Naidu, 2021), we wanted to mirror this approach and retain good practice in relation to authentic assessments (Joy Cumming and Maxwell, 1999) for the move online.

We had set all assessments online using synchronous and asynchronous participation methods depending on the nature of the assessment. We either changed specific assessment types or removed them where required. We reviewed all assessments of the unit, including online quizzes, in-class tests, individual and group assignments, presentations, and the final exam. We selected a few in-class tests and converted them to assignment-oriented assessments requiring a file submission from a student or group using the Canvas system. In terms of assessment distribution, we designed some of them

to accommodate a delay in implementation in the first six weeks of the 13-week semester to allow students time to settle down before actively engaging with their study. Giving students more time to start doing the assessments was necessary because many of them had to go through a tough time preparing for a good start of the semester, maintaining their mental health and well-being during the Covid-19 outbreak. Thus, we offered flexible time in the commencement of some assessments to support their learning in crisis.

Regarding assessment design, we constructed assessments based on real-world scenarios and case analyses. We implemented them online, requiring students to use critical thinking and analytical skills because these are vital components of the unit's learning outcomes and the university's graduate qualities. We removed Multiple-Choice Questions (MCQs) and Short Answer Questions (SAQs) in the unit of study to give the students a taste of challenges in real-life contexts. However, we did not remove the final exam because our school has a practice whereby most units must have a final exam to offer individual students an exam experience. The exam must carry at least about half of the total weightage of the study unit. Designing an online take-home final exam offered opportunities for students to reflect real-world context and classroom knowledge and respond to analytical and self-reflective questions. We continually improved authentic assessment design and implementation by analysing what went right and what did not in the unit of study as the pandemic progressed.

## ***Recommendations***

While adhering to wider university policy with the final exam, we still made the most of the freedom to ensure authentic assessment. We suggest that educators strive to produce assessments that are engaging, considerate, have synchronous and asynchronous features and focus on real-life scenarios. We also recommend that the authentic assessment strategy serve the purposes of the unit of study and be supported by a balanced alignment between learning activities, assessments, and learning outcomes, aiming to create real-world impact by producing authentic graduate qualities.

We realised that adequate support and resources from the faculty level Education Design team and the university's central Educational Innovation team in transforming assessments during emergency circumstances is crucial. To design an authentic

assessment, one should have educational leadership and a desire to ensure that the unit of study contributes to graduate employability (Sotiriadou et al., 2020; Villarroel et al., 2020). Future research on assessment design, especially in a postgraduate computing degree program or STEM domain, may encompass the findings from this case study to better design assessments that reflect the complex challenges of real-world activities.

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