

Dr Renuka V Sathasivam– Malaysia –

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Don’t reinvent the wheel: Mimicking face-to-face instruction in an online environment

Purpose and context of the presentation

The presentation provides some suggestions on how to conduct online education for those who are not accustomed to teaching online and using technology.

Background

Prior to the COVID-19 changes to education, universities in Malaysia had an e-learning week in which students and lecturers conducted teaching and learning online. However, it was easy to hold off on delivering important content during this time, and so for some, it was not sufficient preparation for fully online education.

The context for this presentation is a unit called Contemporary Issues in Science Education, and how it was conducted face to face, compared to how it is being conducted online.

Face to face teaching

The students met for 3 hours per week for 14 weeks. The students were working science teachers and so initial discussions centred around the relevance of the course to their profession and the issues they would particularly like to learn more about. This is guided by the lecturer’s intended agenda as well, and together a list of learning outcomes is decided on. In particular, teacher agency is a strong theme included in this course.

Students role play STEM activities to identify issues and workshop solutions.

The end outcome of the course is a collaboratively produced book of suggestions and activities relevant to the course and their profession, graded at 40% as a group task. Each student also writes a research thesis.

Students complete a peer assessment on how well each student worked collaboratively, with each student allocated a mark out of ten, and no repeat marks (only one peer can earn a 10, one can earn a 9, etc), and the marks must be justified. This allows the lecturer to identify any students whose group task grade may not reflect their actual work on the task.

The change to online course delivery

When online education became necessary, Dr Sathasivam decided not to re-vamp the whole course but to mimic some of the face-to-face framework.

The introductory lesson took place on Google Meet, but covered the same topics as in the face-to-face mode, including identifying a list of issues to be covered in the course.

Presentation Summary - Extracted Key Points from September AAAF Presentations

In the second week, students were divided into groups and given two issues each to work on, in two-hourly blocks.

Online research was modelled when investigating the issues, as a scaffold of research skills to prepare students for their research thesis component.

Videos and articles were placed on the LMS to support and direct students as they work through the issues in groups. Each group also met with the lecturer for up to an hour each week to discuss their progress and ensure they were on the right track. Each group had to prepare a two-hour presentation to the rest of the class on the issues their group was researching, and this was also discussed and supported during the group meetings.

The two-hour presentations were an excellent opportunity for the lecturer to learn more about online resources, as students used many different apps and tools for their presentations, to make them more interactive and engaging. There was a strong sense of co-construction of knowledge, with the students introducing the lecturer to different resources and the lecturer supporting the students to craft guiding and reflective questions for their peers.

Students still collaborated to produce a book. However, the lecturer did not ask the students to complete a peer assessment, considering that it would be unfair considering the different home circumstances and added pressures of online education for each student.

The lecturer provided ungraded critical feedback to each student on their work and attitudes throughout the unit, as a way of encouraging them to think about ways they can improve their learning, engagement and study habits in the online environment, and asked for critical feedback in return to improve her online course delivery.

Conclusions and lecturer reflections

The lecturer reflected on her course delivery and identified three main ideas:

- Communication is very important: Online resources and apps are useful, but the quality of conversation must be maintained.
- Students' feelings and circumstances must be taken into account.
- The quality of teaching must remain high.