

Dr Eric Chua – Singapore – 6th September 2021

Monitoring students' online learning experience under COVID-19 – A Singapore university's findings

The state of online and face to face teaching and learning during COVID-19

In Singapore, the teaching policy has changed during the period from 2019 when COVID became a serious issue. The initial requirement was for large classes of over 50 students to transition to online while keeping small classes face to face. Following that, all exams and then all learning transitioned to online, and then as cases fell, practical labs could be done face to face once more. This pattern continued as COVID cases rose and fell until the current trimester in which large classes of 50 students or more are online and the rest are face-to-face.

Students' and academics' experiences

The university sought to identify students' and academics' preferences and perceived effectiveness of online learning. Additional aims were to identify students' self-regulation and ability to cope with online learning, and challenges to online learning.

Data sets

Three data sets were collected:

- An online survey during the fully online teaching period,
- A follow-up survey one year later during the blended teaching period,
- Individual module feedback.

Results

The module feedback showed that:

- 75% of respondents felt that the online activities were effective in achieving the module learning outcomes.
- 74% of respondents felt that the online activities complemented the face-to-face lessons well.

The study also sought to identify which types of teaching students and academics preferred and which they perceived to be most effective, out of *lectures, interactive lectures, assessments, consultations, project work, tutorials/workshops* and *labs*.

Student results

Preference: Students showed a clear preference for face-to-face labs, workshops, project work and consultations and a clear preference for online lectures.

Perceived effectiveness: Students perceived face-to-face labs, consultations, project work and workshops to be more effective; however despite their preference for online lectures, students did not perceive these to be significantly more effective than face-to-face lectures.

Students identified clarity of online activities, lectures and material to be good. However, engagement, participation and class atmosphere were not perceived to be as effective online

Academic results

Preference: Academics showed the same preferences for labs, workshops, project work, assessments and consultation to be face to face and for lectures to be online.

Perceived effectiveness: Academics perceived that all types of learning were more effective face to face. Additionally, academics felt that effectiveness in all types of learning was higher than students' perceptions of effectiveness in the same activities.

Self-regulation during online learning

Students' self-regulation of online learning improved from 2019 to 2020, with students feeling more positive about their learning, more in control, more able to manage time, more self-disciplined and more adaptable.

Challenges of online learning

Students reported four major challenges to their online learning:

- Unconducive study environments – difficulties studying in the home environment.
- Constrained online engagement and interaction – issues with question clarification, engaging material and engaging with all class members and with peers.
- Reduced social interaction and motivation – online distractions, isolation.
- Technical difficulties – internet connection and instability.

Reflections of research

Online and blended teaching and learning is an interactive process in which student-educator partnerships are essential, with shared responsibility for improvement. All voices need to be heard and balanced. A model of continuous improvement is required to make best use of face-to-face teaching opportunities, to optimise technology use, to make online teaching more engaging and participatory and to continue to innovate and research the effectiveness of these teaching modes.