Australia-ASEAN Academics Forum:
Online Education during COVID-19 and Beyond

AAAF Dr Eric Chua talk Sep 6th 2021

Transcript

So, hello colleagues, it's a pleasure to be here and I thank you for the opportunity to share.

So, I will like to share a little bit about our experience at the Singapore University of Technology. Monitoring our students' online learning experience under COVID from when COVID started to now. So, and along the way, I love to hear comments or just sharing from other colleagues. And after this, please do drop me an email or let's connect on LinkedIn to continue the conversation.


So maybe just an overview, what's the COVID situation in Singapore and then in our university, the Singapore Institute of Technology. So, so far in Singapore, in terms of cases, this is the situation. So, from the beginning to now we had a big first wave, a lot among the worker dormitories, and then it's been relatively quiet for a while. And it recently started picking up. Then on the vaccination front, we started vaccination late last year. As of now, we are about 81% fully vaccinated. So that is the overall view of what COVID is in Singapore.

So, with that in context, if I superimpose that overall case load. So, as a university, this is what we've been doing. So, when COVID first hit it was our second term in academic year '19. Initially, we went with this rule which is large classes go online. So, large classes meaning classes more than 50 students all go online. But then very soon, with this uptick, in fact just before that, even before that, that was where a circuit breaker was announced. So essentially, it's equivalent of lockdowns, I think, in many countries. So with that, first all the exams went online and then subsequently it's 100% online learning for one whole term, trimester 3. And then as a country, because we were sort of somewhere in this phase, so we started opening up into what we call phase one to phase two. And so, as a university we also started going back to the rule whereby for large classes we'll go online. So, throughout this entire period we were doing this. So, classes below 50 face-to-face, classes above 50 online. So, by and large, it's as you may expect. The lectures that were online, online either as pre-recorded lectures or as live lectures, and then a lot of the smaller tutorial practicals were then still be able to be conducted face-to-face. But then, with this uptick that you see here, that's where we went back to what we call phase 2, under heightened alert. So, we went back therefore to almost fully online except for practical labs in small groups that were still done face to face. And then, with, as a country, I guess the posture entering to an endemic posture. So, we're coming back again with this trimester that started today, back to this rule which is large classes go online, small classes go face to face. So, in a nutshell, this is our journey as a university, pretty much in line with the overall situation in Singapore.

So, in this process, we also try to track the students experience and responses.
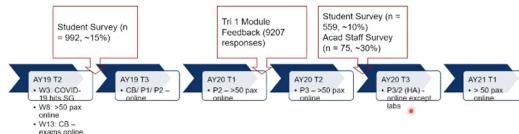
So, among the various things that we did, one was we collected some data. So, right after the very first trimester when, so, halfway through the trimester we had to go fully online. At the end of the

trimester we did a student survey, response rate of about 15% of the total student population. And then we also follow up with another one fairly, about a year after that, so, about the beginning of this year, with a response over 10%. We also took the opportunity to survey similar questions with our academic staff. We also look at module feedback. That's part of the regular teaching process. So, every term we get more feedback. So, look at that for the term trimester one. So, late last year. So, I'm going to share some of the results that we found from these three pieces of data. And I think a large part of it it's in line with what Misty just shared in terms of engagement.

So, the key areas that investigated, we look at preference, student preference. Do they prefer online, do they prefer face to face for different kinds of classes, their perceived effectiveness. So they may prefer but then also we want to check what is their perceived effectiveness. We also try to look at how students are coping, the self-regulation for online learning, as well as to understand the general challenges that students are facing with online learning. So, there's that we investigated.

So, in terms of results, so just to give a very broad sense, so through the module feedback, so the two such questions in the module feedback, online activities were effective as well as that they complemented or blended well with face to face. So, by and large, we have a three-quarter student agreeing to this kind of statements, so giving us a general sense that we are on the right track. Diving into the data a little bit…
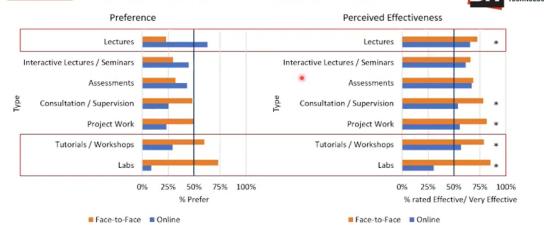
So, this is where we asked them about their preferences as well as their perceived effectiveness across different class types. So, lectures, tutorials, consultations and so on. So, what we found is that in terms of preference, so there's a preference for online, for lectures, and then there's a preference for face to face when it comes to tutorials and labs. For the other types, I don't think there's a clear-cut preference. And then for the perceived effectiveness, as you may expect, for tutorials and labs, preference for face to face as well as perceived that face to face is more effective. The interesting thing comes through the lectures that the preference is for online. However, I think at least when the survey was done, students were still perhaps just a tad feeling that that's the case though face-to-face lectures might still be a bit more effective in their view. So, that's the perceived preference and perceived effectiveness.
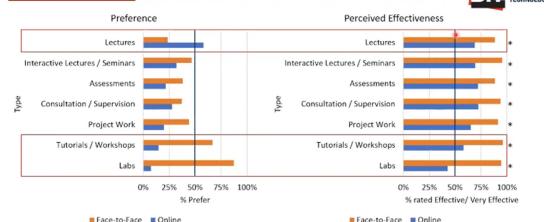
We also asked the same questions to academic staff. And interesting thing is that the preferences are the same. So that's good in terms of alignment. Perceived effectiveness also the same. And something interesting that we picked up is that academic staff tend to perceive the effectiveness higher than students across the board. So, no matter whether it is lectures, tutorials, we always think we are more effective than students think we are. So, something interesting coming up from there but perhaps not surprising. So that's the preference and perceived effectiveness.
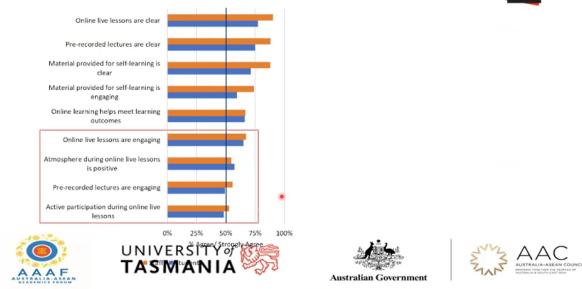
We then also went on to ask a little bit, tried to get more data on the perceived effectiveness specifically on online learning.
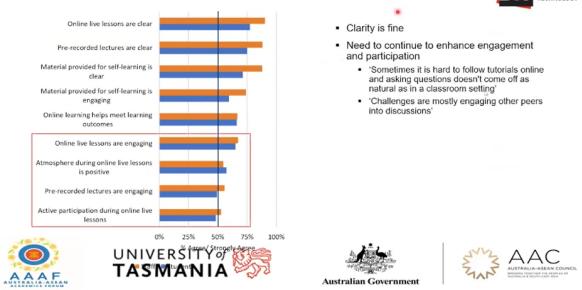
And what we found is that generally, students are okay in terms of clarity. So, I think that having to go online and deliver, so the delivery, I think students were relatively happy with it. So, the comments along the lines of material is clear, delivery is fine. But where perhaps we need to work on, it's been alluded to, is the engagement bit. So, to continue to enhance engagement and participation because this is where I think the ratings are a bit lower. So, the atmosphere, the engagement, active participation, and comments like this, that you've probably seen earlier from Misty and Mark's presentation, similar themes.
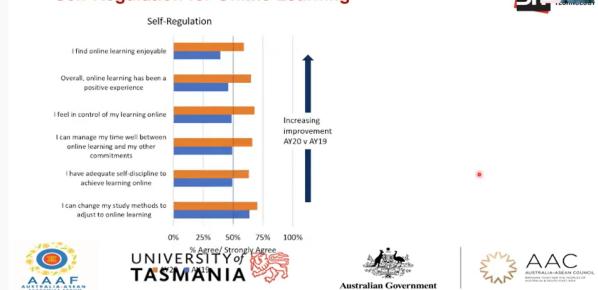
And then, on the part that we asked them in terms of how they are managing the online learning, so we tried to use simple questions like this, that students can understand. So, asking them overall is it

positive experience, do you feel in control, time management, self-discipline, adaptation and so on. And what you are looking here is the same set of questions and the responses at the beginning of COVID and about one year later. So, at the beginning are the blue bars and one year later are the orange bars. So, what we are happy to see is that across the board there's a general improvement after one year of COVID-induced online learning. And, but if we sort of break it down, I think seems to be the part about the self-discipline and time management that's probably gotten a little bit better. But of course, overall, in terms of finding it engaging, enjoyable, it's probably something that we have to still work on.

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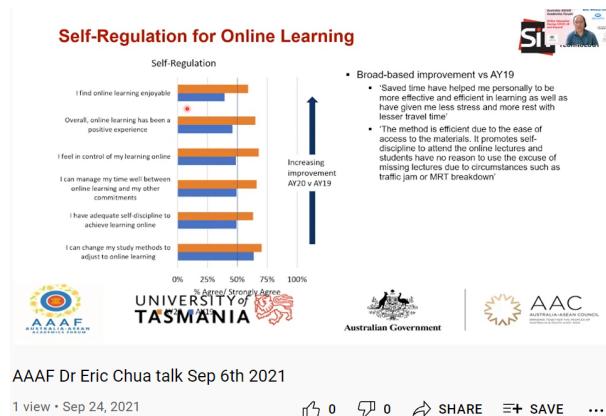
So, then, a little bit about some of the improvements. So, I think students are getting, as you may expect, getting to terms learning how to cope with studying where online learning has a bigger component. And I think overall, we're happy that there is, I mean, students are adjusting.

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In terms of challenges, so, this is the part where in the survey is the qualitative part. So, we found that some themes that came out, so for example, unconducive study environment. So, we all recognize not everybody has a conducive environment at home. We hear that people have to leave their house to study. So, things like unable to create a productive space, hard to focus at home, definitely very real. And as a university as a whole, what we have done is we essentially created space within the campus for small group of students to come back for online learning should they wish to. Second theme, sort of alluding to what was talked about earlier, so felt that engagement and interaction will be constrained online, so, hard to clarify questions effectively, classes could be more engaging, quite hard for the lecturers to engage everyone.

Challenges with Online Learning (2/2)

- Reduced social/ motivation
  - 'Lack of self-motivation after prolonged study alone in the room. Distraction from online net surfing looking for information that may not be irrelevant to the topic.'
  - 'Can feel a bit isolated sometimes. Get distracted easily, but this happens in physical classes too, and I can always just re-watch the recording or send an instant message to a friend to ask what I missed if I had to leave my computer for a while. '
- Technical difficulties
  - 'Bad internet connections at times from the school side causes static in voice or unclear lectures which then is stored in their recording and still unable to understand from it'
  - 'One challenge I experienced was the instability of my WiFi, which resulted in disruptions experienced during live lectures and lessons'

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And then of course, the social part. So, as much you try to put in groups and so on, but I think there was also this notion that the, because of the reduced social interactions and all that, so some of them were saying it affects their motivation a little bit, feel a bit isolated. And then, of course, technical difficulties. So, as much as, as a university, we cater for this, we make sure that everyone has internet access and so on, but still of course there can be technical difficulties from time to time which affected their studies. So these are the data that came out from those, I mean, results that came out of the data that we have.

Reflections

- Important to bear in mind the context in which online learning is taking place – everyone is (still) learning!
- Emphasise student-educator partnership. Socialise expectations, support student self-regulation, continue to hear their voice, let them know they're heard. Remember the disadvantaged group
- Avoid letting the handful of loud complains drown the positive comments too – a balanced approach is important
- Continuously improve our teaching
  - Make best use of 'precious' face to face teaching time, optimise blended approach
  - Enhance physical labs with technology
  - Make online material/ lessons engaging, increase student participation, check on student progress
  - Innovate & research effectiveness & impact of our blended teaching

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And perhaps just to share some reflections on this data so far, up to one and a half year, two years into the journey. So, we thought that it's important to bear in mind the context that online learning is taking place and everyone, faculty and students, involved, are still learning and that's why we get it here, to learn from one another. So we will continue continuously trying to make it better, more engaging. And I suppose alluding to what was shared earlier is then to continue to emphasize the student-educator partnership. So it's not just on the students' end to figure out how to online learning themselves. It's not just on our end to figure out how to engage them. It really takes both hands to clap. So as part of that, perhaps, so to socialize expectations. Because before this, at least in Singapore, this kind of online learning is not that prevalent, so students might not know the rules or the expectations in online classes, online learning. That's one, and also of course to continue to support student self-regulation. So, and also I think part of what we're doing here is to then, to hear their voice and to let them know that they're heard. I think that's important as well in terms of our engagement with students, at least as a university. And of course, importantly, that there's a disadvantaged, a bit small, but there's always a disadvantaged group within our student population that we have to bear in mind and cater for.

And also I think this is typical this time, this approach of studying, as we may find, sometimes people who respond are the people who have something to say and people who have something to say might not, might tend to be those that have something negative to say. So I guess, we do hear anecdotally that there's positive comments coming from the student body. So I think, for us, bearing in mind like that, a balanced approach is important to avoid letting the handful of complaints drown the positive comments. And of course, we're continuously improving our teaching. So, part of it is now that face-to-face time is much more precious before, how do we make full use, and of course that, together with the blended of online, how do we then optimize. Also at the same time along the lines of the precious face to face, so we still able to do physical labs but we're also looking at how do we stretch or enhance the physical labs with technology. So for example with simulation, so it's still physical, but with simulation we might be able to expand the repertoire or deepen the learning experience that students can get with these precious face-to-face teaching time. And then of course, for online, continuously trying to make the learning engaging, increase student participation, and also importantly to check on their progress, to try to catch them before they fall. And I suppose overall as a whole we're trying to do, as a university is also to continue to innovate under this blended teaching or blended learning approach. And of course to research the effectiveness and the impact of our new approaches.

That brings me to the end of sharing.