Editorial

Online Education: An "Opportunity" for a Positive Change in the Teaching Learning Process

Gaya Jayakody

Department of Science for Technology, Faculty of Technology, University of Sri Jayewardenepura, Pitipana, Homagama 10200, Sri Lanka.

Email Correspondence: gayanayomi@sjp.ac.lk (G. Jayakody)

The progression of instructional practices in both universities and schools has taken a sharp turn in the last two years upon the outbreak of the Covid-19 pandemic. The shift from face-to-face lectures and classroom teaching to online teaching using video conferencing platforms has brought about significant changes in the way how teachers/instructors teach and how students learn at all educational levels. On the one hand online education has been unfavorable to students who don't have adequate internet facilities and learning tools (computers, smartphones, etc.), and on the other hand even with the required facilities, studies have shown the negative effects on their mental health such as anxiety, frustration and boredom [1, 3, 5]. Among the reported negative effects on students of online teaching are, uncertainty about academic success, future careers and social life [1], low level of student engagement [7] and zoom fatigue [2]. Our personal observation is that, not only students, but instructors too were challenged with inadequate infrastructure and lack of appropriate technology when they were suddenly thrown into online teaching with minimum preparation.

In spite of these struggles and shortfalls that came with it, online teaching and learning that teachers and students were 'forced' to transition into could be viewed as a blessing in disguise as well. There are studies that have identified 'opportunities' amidst the barriers presented by the challenges experienced with online education [4, 8].

There is usually a natural resistance in teachers to change years of their teaching practices, and hence it is a challenging task to introduce novel and research based instructional techniques to an education system. However, online teaching has offered instructors "opportunities" to explore and experiment on new teaching and learning processes. Thus I propose two non-subject specific strategic pedagogical changes that instructors can

incorporate into their online teaching to make online teaching a better experience that can enhance student learning.

Blended Learning – Flip Your Class

With online teaching, the Learning Management Systems (LMS) have completely replaced its earlier role as a complementary system in the blended learning style. We are not just teaching online, but by making the lecture recordings available to students we are opening a new dimension to learning as it creates a flexible learning pace for students. A study done on the impact of online video lecture recordings on student performance has shown that students who attended few lectures had more benefit from viewing online lectures than students who attended many lectures [9]. Further, a study conducted in New Zealand, students reported highest satisfaction with recorded video lectures, and real time video conferenced tutorials [6]. These observations resonate with flipped classroom technique that utilizes the blended learning model. Flipping the classroom, we can slightly tweak the current method by making asynchronous post pre-recorded video lectures covering theory on the LMS for the students to view them any number of times in their own pace followed by synchronous online sessions for discussion and working out problems. The flipped second part would allow students to grapple with, apply, and elaborate on course concepts. Instead of pre-recording videos, instructors may alternatively use readings or high quality third party content such as power point presentations, podcasts, videos or animations that are available on the internet. One need not flip lectures of a whole module but try it on only a subset of lecture materials, maybe leaving the advanced topics for regular teaching.

Increase the *Variety* in Delivery and Engagement

Despite the cons in online teaching compared to the face-to-face instruction, there *are* constructive features that come with the online mode if one looks close and explores the possibilities. The technology based online education provides a multitude of ways to increase the variety in content delivery that can align with different student interests, personalities, and learning styles. Among various software, apps and platforms used for online teaching, we have a variety to *consciously* choose from; smart-boards and white boards provided in the software we use (such as zoom white board or windows ink workspace), camera apps (such as droid-cam or iv-cam) that broadcasts live writing on a paper with the visibility of the hand and teaching aids such as YouTube videos,

animations, graphing tools and dynamic visuals that can have interactive elements and reflective components to support learning.

The main drawback in online teaching is losing the physical presence and interaction with students. This disconnection from in-person engagement can be reduced at least by maintaining one way visibility if the instructor keeps the camera switched on so that his/her presence is made felt by the students. This will also support better understanding of the content taught by *seeing* hand gestures, facial expressions, enthusiasm etc. Further, the monologues nature in physical lectures that gives less opportunity for students to communicate directly with the lecturer can be changed. In online mode, apart from students unmuting only when they need to respond, students can be invited to keep their microphones unmuted (given no background noise) and talk directly and participate in the discussion or drop messages on the chat box. Students tend to express their doubts or views more freely since they are not seen by others and because they are in their own personal space. The annotating feature is another tool that can also be used to increase student engagement by inviting them to work out on a problem on the screen. More than one student can work simultaneously on the board when everyone is viewing their work while the lecturer is providing live feedback on the work. Also, students can be split into groups and put in breakout rooms for discussions or group work and the lecturer can take turns to visit each room and monitor their work and give comments and feedback. Online polls (which are sometimes available in the video conferencing platform itself such as Zoom) can be used to get whole class engagement simultaneously.

The virtual classrooms need not reproduce or imitate traditional instruction but taken as an opportunity for change. We might be stuck with the online mode of teaching for some more time, and if that's the only possible way we can continue education, we might as well make the best out of it. The above are a few suggestions that by no means perfect. Rather, they are a reminder and an invitation to ourselves that we need to reconsider our own pedagogical paradigms and redefine how we work and facilitate learning under "the new normal".

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