

## Case Study

# A Case Study on Online Learning and Digital Assessment in Times of Crisis

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### **Abstract**

*To minimise the adverse impact on student learning due to escalating social unrest started locally in June 2019 and the current COVID-19 pandemic, Hong Kong Baptist University has emphatically strengthened its strategic resolve in e-Learning deployment. With various measures and e-Learning initiatives rolled out, HKBU teachers gained more momentum in launching online classes and conducting e-Assessments with different e-Tools. Peer-sharing from teachers who have successfully implemented online classes and digital assessment was conducive to creating a culture to fast-track e-Learning adoption. This case study sheds light on how virtual teaching and learning have assisted HKBU teachers and students circumvent the recent crises. The study also identifies determining factors and challenges of adopting e-Learning strategies at the University.*

### **Keywords**

*e-Learning, e-Pedagogy, e-Assessment, online classes, digital assessment*

### **1. Introduction**

Academic year, AY2019/20 has been tough for universities in Hong Kong. Since mid-2019, social movements had spread across the city, then as 2020 progressed, the COVID-19 pandemic led to shutdown of campuses and physical class suspension. In response to the 2019 unrest, Hong Kong Baptist University (HKBU), which has emphasised the adoption of e-Pedagogies in its teaching curriculum, decided to scale up its e-Learning capacity with a view to enhancing its preparedness for any further disruptions to on-campus teaching. Thus, when COVID-19 started to go viral, HKBU teachers and students were prepared to adopt online teaching and learning without much hindrance as the University shifted its lessons online swiftly and totally.

This case study outlines how the e-Pedagogies at HKBU had assisted its teachers and students to circumvent the recent crises. The paper also identifies certain strategic priorities pertaining to online teaching and learning for future years and the determining factors that will help facilitate the delivery of these e-Learning initiatives. We shall start by describing how the University puts its e-Learning strategy in context to cope with the unexpected incidents, followed by how the unprecedented crises have changed our teaching and learning landscape and the challenges that we may confront in moving forward with e-Learning initiatives.

## **2. The Development of e-Pedagogy at HKBU**

Broadly defined, e-Pedagogy can be regarded as learning design that incorporates educational quality, values and effectiveness of teaching, learning and assessment activities supported by technology (Dempster, 2012). Following years of e-Pedagogical practices among its teachers, HKBU introduced a more systematic approach in 2017 with the release of the Pan-university Standards for Adoption of e-Pedagogies for Effective Teaching and Learning. The Standards were intended to provide a framework to facilitate the adoption of e-Learning at HKBU to enhance students learning experience while supporting diversity and flexibility in e-Pedagogical practices among teachers. Different levels of e-Pedagogy adoption for various teaching and learning applications were identified, from dissemination of information, repository of teaching and learning materials, to learning engagement, assessment and feedback, and development of e-Portfolios. HKBU teachers were encouraged to adopt emerging e-Pedagogies according to their own capabilities to provide the best possible learning experience for students.

In 2017, the University introduced Small Private Online Courses (SPOCs) as alternative offerings for students to acquire knowledge in certain disciplines and learn with their peers from other local/overseas universities through the Future Learn platform. At the time, most of the e-Learning initiatives at HKBU were delivered in the mode of blended learning, i.e., combining physical instruction with computer-mediated instruction (Graham, 2006).

## **3. Stepping Up e-Learning Initiatives in Times of Crisis**

In November 2019, social movements in the city were seriously disrupting HKBU's institutional operations, the campus had to be shut down and physical classes suspended abruptly for the last two weeks of the first semester of AY2019/20. HKBU, in response, stepped up e-Learning initiatives to facilitate students learning and assessment, support to teachers for online provision was also strengthened. Faculty members were encouraged to adopt different e-Learning initiatives, e.g., voice-over PowerPoint presentations uploaded onto the Moodle learning management system for students' access anytime, anywhere. Furthermore, electronic/online assessments (e.g., open-book/take-home examinations, e-Portfolios, Moodle quizzes) were recommended and enabled for teachers to conduct end-of-semester assessments. Rather than simply putting existing assessments

online, teachers had to change the type and weighting of assessments for their courses, so as to better suit the online environment.

To better prepare everyone for the second semester, the University announced in December 2019 that an e-Learning Fortnight would be organised in February 2020 for focused efforts on e-Learning practices. It was anticipated that within those 2 weeks, teachers would deliver at least one 50-minute session of real-time (synchronous) online teaching with e-Tools, e.g., Echo360, Google class, Zoom, and students could conduct their discussion/presentation online. With the e-Learning Fortnight marked in their teaching schedules of the second semester, teachers at HKBU had started to adjust their teaching materials and assessment tasks accordingly during the semester break in December/January. Thus, when COVID-19 went viral in Asia in January/February 2020, most teachers were, to a certain extent, prepared to switch to online teaching completely.

Upon the commencement of the second semester when the virus became more widespread, HKBU requested all teachers to deploy e-Learning as face-to-face classes were suspended. Teachers had to deliver their classes in real-time at the scheduled class time or at least ensure that video recording of lectures and course materials were archived and provided via electronic means for students' access.

For stability and reliability, the University management must ensure that the IT infrastructure could support all teachers to smoothly deploy their e-Learning initiatives (Olaitan & James, 2017). To cater for the large increase in online classes and e-Assessment, HKBU had enhanced the VPN service, introduced various e-Tools including video conferencing software, in addition to maintaining Moodle's resilience. In particular, the University had subscribed to a Zoom Pro site licence which allowed online meetings of up to 300 participants with unlimited durations. There was also a direct link connecting HKBU server to the Zoom Hong Kong server for optimal connection performance. These upgraded features and special arrangements had enabled HKBU teachers to conduct online classes and e-Assessments with as few limitations as possible.

Concurrently, the University also organised a series of virtual Teaching and Learning Experience Sharing (TALES) workshops pertaining to e-Learning and e-Assessment to further boost its capacity of online teaching and learning since November 2019. Teachers with prior knowledge and skills in virtual teaching would share their insights/experience with others in these TALES workshops.

The deployment of e-Learning and e-Assessments was not equally adopted by all HKBU teachers when classes were brusquely interrupted. To assist swift adoption, a total of 540 individual participants attended one or more of the 23 TALES workshops that had been organised for equipping/refreshing teachers with the skills and knowledge necessary for online teaching and digital assessments from November 2019 to March 2020. Highlights of the workshops were tech-savvy teachers sharing their experience in holding online classes and interacting with students over the internet. This approach greatly assisted other teachers in applying/incorporating what they had learnt in the workshops into their virtual lessons. It is worth highlighting that among the participants who had joined these TALES workshops, nearly 90% of them subsequently held their own online classes.

To showcase accomplishments, participating teachers who had successfully acquired remote teaching skills from the TALES workshops were invited back to share their technical and e-Pedagogical experience with other teachers in subsequent sessions. This peer-learning methodology helped create a culture of mutual encouragement in adopting e-Learning effectively and efficiently as indicated by participant's rating on the overall quality of the workshops (4.44 out of 5, Likert scale) and their feedback/comments, some of which are listed below:-

*"As a new user to Zoom, the workshop was extremely helpful in teaching me how to schedule a meeting and how to interact with the students (via chat, speaking, annotation, screen sharing)."*

*"The workshop is instrumental for my launch of zoom classes on Feb. 13 right after I learned much more from our wonderful colleagues."*

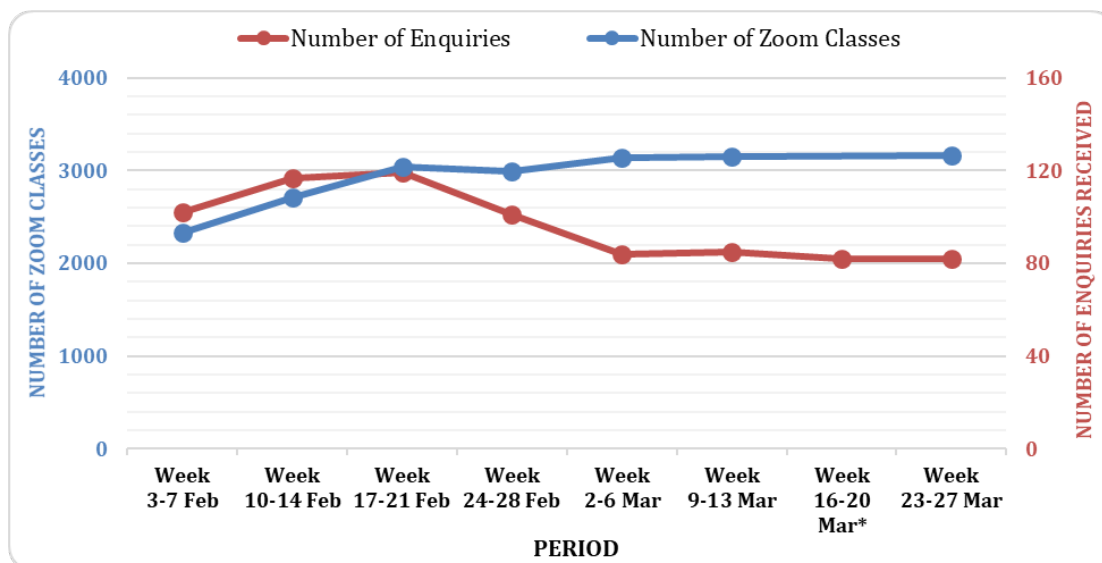
*"I like the actual demonstrations of different functions of Zoom (e.g., the speaker showing how she shares the screen, draws on the screen, etc.)."*

*"For the Q&A part, colleagues shared their problems in using the software in teaching, and helpful answers were given. I learned much from their sharing."*

*"Thanks for taking us through the whole process slowly and clearly. This is going to be very useful when we cannot hold physical classes."*

In addition, a team of e-Learning support staff was dedicated to answering individual teachers' enquiries on e-Learning, e-Assessments, and using e-Tools. More than 770 enquiries had been received and handled via phone calls and emails from HKBU teachers and students from February to March 2020 (Figure 1). Over this period, as more teachers became confident with e-Learning, e-Assessment and the e-Tools, the number of teachers conducting online classes correspondingly increased. There were also fewer enquiries received, and encouragingly, a stable number of online classes emerged (Figure 1). It was particularly heartening to note the change in queries as some teachers started to explore advanced functions/features of the e-Tools to further enhance the online learning experience of students.

All related e-Learning resources, including workshop recordings, teachers' common issues of enquiry, comprehensive guidelines for the adoption of e-Tools, like Zoom, Echo360, and Moodle's advanced features, had been uploaded into Moodle and consolidated onto an e-Learning Support webpage (<http://chtl.hkbu.edu.hk/elearning/support/>) for easy reference. Additionally, recommended practices, good examples of e-Learning and e-Assessments, and relevant guidelines and policies were also accessible via the webpage. This helped furnish teachers and students with guidance for consistent yet flexible e-Pedagogical practices across the University.



**Figure 1. Number of Zoom Classes and Number of Enquiries Received during February to March 2020 (\*Remark: Data of Zoom Classes for March 16 - 18 Were Corrupted)**

#### 4. The Challenges

While e-Learning could help minimise the disruptive impact of crises on face-to-face teaching and learning, transition to virtual teaching and online learning in a disturbed environment could be challenging to the University and its constituents. Firstly, the University has to ensure that its IT infrastructure, including both hardware and software, is resilient enough to cope with the significantly increased use of multimedia teaching materials and interaction with students over the internet (Moakofhi, Leteane, Phiri, Pholele, & Sebalatlheng, 2017). Secondly, non-local students might have returned to their home regions during campus shutdown and suspension of physical classes, causing difficulties for teachers to conduct e-Assessments for local and non-local students at the same time due to time-zone differences. Furthermore, non-local students may not have easy access to certain software as their local counterparts. The University thus has to safeguard accessibility with a high calibre VPN, and teachers have to ensure their e-Learning materials are compatible with different online sources. Moreover, appropriate and timely training must be provided for teachers to enable them to deploy e-Learning confidently. Lastly, and most importantly, the University has to change the mindset of teachers to understand that switching to virtual teaching involves much more than simply uploading existing teaching materials onto Moodle. Teachers have to be supported to redesign course contents, change the type and weighting of assessment tasks, and adopt relevant e-Tools to engage students to learn online. To upkeep our academic standards, the University also has to ensure its academic regulations are adhered to while providing flexibility to teachers and students under extraordinary circumstances.

## 5. Conclusion

Throughout AY2019/20, social movements and the COVID-19 pandemic have seriously affected on-campus physical instructions at HKBU. With the concerted efforts of various central units and Faculties in scaling up e-Learning at the University, the teaching and learning landscape had changed quite remarkably over the past few months. It was observed that peer-sharing by experienced or newly-converted teachers on their successful virtual teaching experience with others had helped fast-track teachers' deployment of e-Tools, thereby fostering a culture of adopting e-Learning and e-Assessment to ensure continued student learning in difficult times. With the workshops and related measures put in place by the University since November 2019, teachers started to gain more momentum in picking up their virtual teaching skills/techniques for conducting online classes and e-Assessments. Finally, a resilient IT infrastructure is of paramount importance in realising the University's e-Learning strategies.

## References

- Dempster, J. (2012). *The changing face of e-pedagogy?* Warwick Interactions Journal. Retrieved from <https://warwick.ac.uk/services/od/academic-development/resource-copy/interactions/issues/issue23/epedagogy/>
- Graham, C. R. (2006). Blended learning systems: Definition, current trends and future directions. In C. J. Bonk, & C. R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 3-21). San Francisco, CA: Pfeiffer. <https://doi.org/10.5465/amle.2008.31413871>
- Hong Kong Baptist University. (2017). *Pan-university standards for adoption of e-pedagogies for effective teaching and learning*. Hong Kong Baptist University.
- Moakofhi, M., Leteane, O., Phiri, T., Pholele, T., & Sebalatheng, P. (2017). Challenges of introducing e-learning at Botswana University of Agriculture and Natural Resources: Lecturers' perspective. *International Journal of Education and Development using ICT*, 13(2), 4-20.
- Olaitan, A., & James, U. (2017). *E-Learning implementation in higher education: Aspects of infrastructure development challenges and students learning approaches*. Paper on International Conference for Process Improvement, Research and Education (INSPIRE), 31 March 2017. British Computer Society.