Project Title :	Using Small Private Online Courses (SPOCs) as Vehicles to Address Fundamental Issues in the Effective Design, Organization, and Assessment of Learning Outcomes in Massive Open Online Courses (MOOCs)
Leading University :	The University of Hong Kong
Participating UGC-funded University(ies) :	The Chinese University of Hong Kong, The Hong Kong University of Science and Technology
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Layman Summary of Proposal

This project finds itself part of a rethinking on how universities can best use online learning: be it in the form of the publicly available MOOCs, small-scale SPOCs, or blended online on-campus courses. Overall, it aims to provide insights on the design, development, research and assessment efforts around online learning. More specifically, it deals with three key issues which possibly plague the further development of these innovative means of learning, namely scale, diversity and quality assurance.

While institutions are responding to these issues quite differently in their online course offerings, the project aims to shed light on the winning ingredients needed. This is done by developing 10 SPOCs to serve as prototypes of MOOCs – mostly based on The University of Hong Kong (HKU)'s Common Core Curriculum, the centrepiece of the University's four-year undergraduate curriculum. Among the teachers invited to participate in this project there are five winners of the HKU Outstanding Teaching Award and one recipient of the UGC Teaching Award. The process of creating these prototypes is an act of discovery for us to find out what

pieces we need as we shape our MOOCs.

This project will involve close collaboration among HKU, The Chinese University of Hong Kong (CUHK) and The Hong Kong University of Science and Technology in the following ways:

1. Making the 10 SPOCs available on the Knowledge & Education Exchange Platform system (led by CUHK);
2. Conducting a comparative study on learning analytics across three universities;
3. Launching a professional support network for designers and teachers of online courses for inter-institutional collaboration, making it possible to establish benchmarks and other reference points for academic standards-setting, strengthening quality assurance systems within and beyond one university.

The project is also forward-looking and has a long-term objective of using online courses to further our education mission to the secondary school sector in Hong Kong by making high-quality educational materials available to younger life-long learners.

Layman Summary of Final Report

Nowadays, Higher Education is trying to focus on providing active learning environments to students by modifying the course designs from a traditional didactic teaching style to a modernised teaching style, through the use of online lecture videos. The purpose of this modification is to ensure that the education delivery style is more student-oriented rather than teacher-oriented. It is also to ensure that students adopt a more active role during their learning process.

In the project, 10 undergraduate SPOCs in blended, fully flipped, and fully online formats were developed and delivered. It also monitored the progress of the first launch of the courses and their revisions over two academic years. Through this process, strengths and challenges of different course designs and the adoption of innovative technology were identified. Such close observations enabled the courses to evolve over time and get better in achieving the objective of enhancing and improving the student learning outcomes.

In the study, it was found that no universal course design would be applicable to all courses. It is important that the teachers work closely with the instructional designers to carefully determine what course design would be suitable for a particular course

and a particular audience. Based on these criteria, the team can decipher whether the course should be delivered as a blended course, fully flipped course, MOOC, or synchronisation between SPOC and MOOC. The pedagogical design varies from course to course, as it mostly depends on the course objectives and expected student outcomes.

Data analytics and data visualisation tools were found to be particularly powerful in SPOCs and MOOCs, as they allow students to plan and manage their own learning progress, and provide evidence to guide teachers to personalised feedback and necessary adjustment of the teaching plan to cater learners' needs. Other educational technologies such as gamified learning, educational chatbot, and virtual and augmented reality were found to be useful to engage student learning in different ways. In general, these innovations promote active learning, self-directed learning, peer collaboration, and feedback and guidance in a more positive way.