

Project Title :	Developing Multidisciplinary and Multicultural Competences through Gamification and Challenge-based Collaborative Learning
Leading University :	Hong Kong Baptist University
Participating UGC-funded University(ies) :	City University of Hong Kong, The Chinese University of Hong Kong, The Hong Kong Polytechnic University
Project Leader(s) :	Dr Eva WONG, Director, Centre for Holistic Teaching & Learning, Hong Kong Baptist University

Summary of Proposal

This proposal, Developing Multidisciplinary and Multicultural Competences through Gamification and Challenge-Based Collaborative Learning, is conceived from the important realisation that in the 21st Century, there is the need for all students to be globally educated and connected to friends, and colleagues locally and in different regions of the world. There is also the belief that long-lasting interactions focused on solving common problems in the form of games amongst local and international students contributes to developing global perspectives. The project will create, pilot and document the impacts of technology enabled challenge-based learning on three outcomes:

1. Student aspirations, efficacy and confidence toward undertaking offshore learning experiences and understanding other cultures.
2. Key skills for a competent global workforce - critical thinking, collaboration, communication and creative problem solving.
3. Student engagement in designing international learning experiences.

Gamification is being recognised as a motivation element in engaging students in active learning. Challenge-based learning is a new teaching model that incorporates the best aspects of problem-based learning, project-based learning, and contextual teaching and learning while focusing on current real world problems. The main goal of the project is to increase student capacities to live, work and contribute positively as members of global communities through global challenges with gamification.

Summary of Final Report

This technology-facilitated learning and teaching project (CCGame in short) is led by Hong Kong Baptist University. City University of Hong Kong, The Chinese University of Hong Kong and The Hong Kong Polytechnic University are the partners. The project aims to increase students' capacity to address global challenges by working in multidisciplinary, multicultural teams in online settings, through a gamified and challenge-based approach. More project details are at <http://ccgame.hkbu.edu.hk>.

The 21st century has brought us not only the technology for enabling collaborations with anyone, anywhere but also global, complex issues from climate change to COVID-19 in 2020. Hence, there is an urgency to help students develop online teamwork skills, particularly when they have no choice but to work online with unfamiliar peoples of diverse backgrounds.

In addition to the provision of gamified platforms for academic members to incorporate in their teaching, the team implemented a series of activities to accomplish the objectives. One of the signature activities is the online tournament which sets the United Nations Sustainable Development Goals (SDGs) as the theme of the challenge. To facilitate the implementation of the eTournaments and relevant activities, a partnership with UNESCO Hong Kong Association was established.

The eTournaments utilised a two-stage “strategise-play” approach with special team formation mechanism, students first got acquainted with their unfamiliar teammates and formulated the strategies for the second stage, using messaging apps. Then, the teams competed on a gamified learning platform, by answering SDGs questions and getting resources such as virtual land according to the formulated strategies. The teams also shared their experience on SDGs through online meetings. The eTournaments, and the Question Creation Contest organised for students to create the SDG questions for the eTournaments, attracted about 780 students globally to participate. With the other activities and initiatives included, over 5 300 students from 46 home regions (including Hong Kong) have been benefited, exceeding the original target of 2 000 students.

The team has disseminated the project outcomes to the higher education sector through conferences and publications – notable ones were the first-ever Lilly-Asia in 2019 and an eSymposium in 2020 in the midst of the COVID-19 pandemic. The project has also been recognised by the global education sector with the attainment of international awards.

Going forward, the team will leverage existing partnerships and seek new sponsorships to extend the project and benefit wider student and academic communities.